CLEAR CREEK COUNTY BOARD OF COUNTY COMMISSIONERS

Regular Meeting Agenda

405 Argentine Street, Georgetown, CO 80444

March 17, 2026

8:30 a.m.

BOARD OF COUNTY COMMISSIONERS REGULAR SESSION

1. Meeting Called To Order

2. Public Comment - (Members Of The Audience Have Three Minutes To Present A Matter Of Concern To The Board. No Official Action May Be Taken At This Time.)

3. Communications Update - Megan Hiler-Wilson

4. County Manager Updates - Colton Rohloff

5. County Commissioner Updates - Commissioners

BOARD OF COUNTY COMMISSIONERS ACTION ITEMS

6. Consent Agenda

A. Consideration Of Approval Of Warrant Register

Documents:

BOARD AGENDA MEMO.PDF
1. WARRANT REGITER PACKET.PDF

B. Consideration Of Resolution R-26-27, A Resolution Authorizing The Disposal Of Seven Clear Creek County Vehicles

Documents:

BOARD AGENDA MEMO.PDF
1. RESOLUTION R-26-27.PDF
2. EQUIPMENT DISPOSAL LIST.PDF

C. Consideration Of Approval Of Resolution R-26-28, A Resolution Authorizing The Disposal Of One Clear Creek County Vehicle

Documents:

BOARD AGENDA MEMO.PDF
1. RESOLUTION R-26-28.PDF

D. Consideration Of Approval Of A Letter To The Colorado Department Of Transportation Supporting The Disposal Parcels Of Land By The Colorado Department Of Transportation Related To CDOT/Clear Creek County Greenway Project #C0703-452

Documents:

BOARD AGENDA MEMO.PDF
1. LETTER SUPPORTING DISPOSAL OF PARCELS BY CDOT.PDF
2. MAP SHOWING THE EAST PARCEL.PDF
3. MAP SHOWING THE WEST PARCELS.PDF

E. Consideration Of Approval Of A Structure Agreement Between Clear Creek County, Colorado And Mountain Top Environmental, LLC

Documents:

BOARD AGENDA MEMO.PDF
1. STRUCTURE AGREEMENT.PDF
2. PROJECT MAPS_.PDF

F. Consideration Of A CDS/CPF Grant Application And Letter Of Support For Courthouse Complex Generators

Documents:

BOARD AGENDA MEMO.PDF
1. CDS CPF - LETTER OF SUPPORT.PDF

G. Consideration Of Approval Of Commissioners' Goals For 2026

Documents:

BOARD AGENDA MEMO.PDF
1. COMMISSIONERS GOALS.PDF

7. Consideration Of Approval Of The Clear Creek County Sport Shooting Park Lease Between The Board Of County Commissioners Of The County Of Clear Creek, Colorado And The Clear Creek Metropolitan Recreation District

Documents:

BOARD AGENDA MEMO.PDF
1. SHOOTING RANGE LEASE.PDF

8. Consideration Of Approval Of The Basin-Wide Augmentation Plan Participation Between The Clear Creek Board Of County Commissioners And Excell Lawson Village, LLC

Documents:

BOARD AGENDA MEMO.PDF
1. WATER LEASING AND BASIN-WIDE AUGMENTATION PLAN PARTICIPATION AGREEMENT.PDF

9. Consideration Of Resolution R-26-29, A Resolution Adopting The Amended 2024 Compensation Plan For All County Employees, Including Those Of Elected County Officials, And Rescinding Resolution R-25-78

Documents:

BOARD AGENDA MEMO.PDF
1. RESOLUTION R-26-29 WITH EXHIBITS A AND B.PDF
2. RESOLUTION R-25-78 TO BE RESCINDED.PDF

BREAK

BOARD OF COUNTY COMMISSIONERS ACTION SESSION

9:30 AM - PUBLIC HEARING

10. Consideration Of Approval Of Resolution 26-19, A Resolution For Adoption Of The 2024 International Code Series To Include The Building, Residential, Plumbing, Mechanical, Energy Conservation, Fuel Gas, Existing Building, Fire, And Swimming Pool And Spa Codes, And For The Adoption Of The 2025 Colorado Wildfire Resiliency Code Effective In The Unincorporated Area Of Clear Creek County

Documents:

BOARD AGENDA MEMO.PDF
1. RESOLUTION R-26-19 BUILDING CODE ADOPTION.PDF
2. 2024 REDLINE BUILDING CODE AMENDMENTS.PDF
3. TRACKED CHANGES TO BUILDING CODE AMENDMENTS.PDF
4 EVERGREEN FIRE PROTECTION DISTRICT LETTER OF SUPPORT.PDF
5. CLEAR CREEK FIRE AUTHORITY CODE ADOPTION LETTER OF SUPPORT.PDF

10:00 AM - PUBLIC HEARINGS

11. Abatement Hearings:

A. Randall Keith Zwink – Case. No. 26-01 - Consideration Of Approval Of Assessor's Recommendation To Approve Petitioner's Request For Abatement Or Refund Of Taxes And Order Directing Refund Of 2025 Taxes In The Amount Of $236.88 Pro Rata By All Jurisdictions Receiving Payment Thereof

Documents:

RANDALL KEITH ZWINK - BOARD AGENDA MEMO AND ATTACHMENTS.PDF

B. JT Lucas Family Properties – Case. No. 26-02 - Consideration Of Assessor's Recommendation To Approve Petitioner's Request For Abatement Or Refund Of Taxes And Order Directing Refund Of 2024 Taxes In The Amount Of $1,619.67 Pro Rata By All Jurisdictions Receiving Payment Thereof

Documents:

JT LUCAS FAMILY PROPERTIES - BOARD AGENDA MEMO AND ATTACHMENTS.PDF

C. LFM Properties, LLC. - Case No. 26-03 - Consideration Of Assessor's Recommendation To Partially Approve Petitioner's Request For Abatement Or Refund Of Taxes And Order Directing Refund Of 2025 For Account R014922 Taxes In The Amount Of $4,781.26 Pro Rata By All Jurisdictions Receiving Payment Thereof And Consideration Of Assessor's Recommendation To Deny Petitioner's Request For Abatement Or Refund Of Taxes For Accounts R014921and R014923

Documents:

LFM PROPERTIES INC - BOARD AGENDA MEMO AND ATTACHMENTS.PDF

D. Charles F. Von Gunten – Case No. 26-04 - Consideration Of Assessor's Recommendation To Approve Petitioner's Request For Abatement Or Refund Of Taxes And For The Board To Issue An Order Directing A Refund Of 2025 Taxes In The Amount Of $1,826.00 And For 2024 Taxes In The Amount Of $1,447.64 Pro Rata By All Jurisdictions Receiving Payment Thereof

Documents:

CHARLES F VON GUNTEN - BOARD AGENDA MEMO AND ATTACHMENTS.PDF

E. Uplifted Hospitality – Case No. 26-05 – Consideration Of Assessor's Recommendation To Approve Petitioner's Request For Abatement Or Refund Of Taxes And Order Directing Refund Of 2025 Taxes In The Amount Of $1,085.90 Pro Rata By All Jurisdictions Receiving Payment Thereof

Documents:

UPLIFTED HOSPITALITY - BOARD AGENDA MEMO AND ATTACHMENTS.PDF

F. Carl And Beltina Little – Case No. 26-06 - Consideration Of Assessor's Recommendation To Deny Petitioner's Request For Abatement Or Refund Of Taxes

Documents:

CARL AND BELTINA LITTLE - BOARD AGENDA MEMO AND ATTACHMENTS.PDF

BREAK FOR LUNCH

BOARD OF COUNTY COMMISSIONERS REGULAR SESSION

1:00 PM – WORK SESSIONS

12. Work Session: Fire Restrictions Implementation - Work Session: Fire Restrictions Implementation

Documents:

BOARD AGENDA MEMO.PDF
1. ORDINANCE NO. 16.PDF
2. RESOLUTION R-01-83.PDF

13. Work Session: Letter Of Support For Clear Bear Fire Mitigation Plan With US Forest

Service

Documents:

BOARD AGENDA MEMO.PDF
1. CLEAR BEAR BEAVER BROOK PROPOSED ACTION.PDF
2. CLEAR CREEK FIRE AUTHORITY COMMUNITY WILDFIRE PROTECTION PLAN.PDF

BREAK

14. Executive Sessions: The Board Will Move Into Executive Session For The Following Purposes:

A. Pursuant To C.R.S. § 24-6-402(4)(B) And (E), For The Board Of County Commissioners To Confer With The County Attorney For The Purposes Of: 1) Receiving Legal Advice On Specific Legal Questions Relating To Matters Involving Potential Litigation Or Other Action To Address A Decision By The Lookout Mountain Water District That Will Negatively Impact The Ability Of Clear Creek High School And Surrounding Areas To Provide For Fire Suppression And Other Public Safety Needs, In Addition To Other Potential Adverse Impacts; And, 2) Determining Positions Relative To Matters That May Be Subject To Negotiations; Developing Strategy For Negotiations; And Instructing Negotiators With Regard To The Aforementioned Issue.

B. Pursuant To C.R.S. § 24-6-402(4)(B) And (E), For The Board Of County Commissioners To Confer With The County Attorney For The Purposes Of: 1) Receiving Legal Advice On Specific Legal Questions Relating To Proposed Legislation; And, 2) Determining Positions Relative To Matters That May Be Subject To Negotiations; Developing Strategy For Negotiations; And Instructing Negotiators With Regard To The Proposed Legislation.

15. Adjourn

To Join And Listen To The Meeting, Please Do The Following:
Please click the link below to join the webinar:

HTTPS://ZOOM.US/J/167562115

Or Telephone:

Dial (for higher quality, dial a number based on your current location):

US: 669 900 6833 or

346 248 7799 or

253 215 8782

Webinar ID: 167 562 115

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information provided by a third party over which we cannot guarantee accessibility. If the format of any material on this agenda interferes with your ability to access information, please contact us. Additional ways to provide feedback regarding accessibility are available online.

Adjourn

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Sarah Lewis, Accounts Payable
Subject: Consideration of Approval of the Warrant Register

RECOMMENDATION

Staff recommends approval of the March 17, 2026 packet.

BACKGROUND

On September 10, 2013, the Board of County Commissioners adopted Resolution R-13-77, authorizing the Clear Creek County Payments Approval Policy. The Policy authorizes the County Manager and Finance Director to approve claims or payroll documents when the Board of County Commissioners is not available to allow and approve claims in the time required by law or contract or within the time available for the proper and efficient administration of County government. The policy goes on to state that when the County Manager or the Finance Director approve one or more claims or payroll documents under the circumstances explained above, the Board of County Commissioners must review and approve said claims or payroll documents at its next regularly scheduled meeting. Staff brings forward the Warrant Register for the Board's consideration during most regularly scheduled meetings.

CONCLUSION

With this item, staff is recommending approval of the Warrant Registers, the Payroll Register, Electronic Fund Transfers, and P-card transactions. All were prepared by Finance staff, reviewed and approved for payment by the County Manager.

ATTACHMENT:

1. Warrant Registers dated February 26, 2026 and March 5, 2026
   Payroll Registers dated February 25, 2026 and March 6, 2026
   Electronic Fund Transfer dated February 25, 2026 to March 6, 2026

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March 17, 2026

Pursuant to Resolution R-13-77, the Board of County Commissioners has reviewed the

- Warrant Registers dated February 26, 2026 and March 5, 2026
- Payroll Registers dated February 25, 2026 and March 6, 2026
- Electronic Fund Transfer dated February 25, 2026 to March 6, 2026

prepared by the Finance staff, reviewed and approved for payment by the County Manager.

Approved:

_____
Rebecca Lloyd, Chair

_____
Jodie Hartman-Ball, Commissioner

_____
George Marlin, Commissioner

Accounts Payable

Computer Check Proof List by Vendor

User: slewis
Printed: 02/25/2026 - 2:46PM
Batch: 00004.02.2026

Clear Creek County
POST OFFICE BOX 2000
GEORGETOWN, COLORADO 80444
TELEPHONE: (303) 569-3251 • (303) 679-2300

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
Vendor: 01217	Alpinaire Healthcare Inc			Check Sequence: 1	ACH Enabled: False
637782	Acct 27665 - O2 M90 Staionary Tank System Re	9.00	02/26/2026	01-253-20-73510-000-000	01 Confinement
	Check Total:	9.00			
Vendor: 01234	Amazon			Check Sequence: 2	ACH Enabled: False
1HTJ-MRRW-FNJX	AC5PG3Q1HTL0B\EarBuds_JW&RD	59.92	02/26/2026	02-328-55-72200-000-000	02 PW
1KH1-VNK7-X94W	AC5PG3Q1HTL0B\OfficeSupplies	64.06	02/26/2026	02-328-55-72200-000-000	02 PW
1Q6Q-CWLM-VTV3	Vetoquinol Renal K+ Potassium Supplement Gel	56.87	02/26/2026	01-365-65-72230-000-000	01 Animal Services
1RFY-1M1K-F79D	Toner for M/L Printer, USB Hub 4 Ports for Elec	416.76	02/26/2026	01-102-10-72200-000-000	01 Clerk and Recorder
1YNV-X7Y3-6WYT	AC5PG3Q1HTL0B\OfficeSupplies	83.63	02/26/2026	02-328-55-72200-000-000	02 PW
	Check Total:	681.24			
Vendor: 01244	Amazon			Check Sequence: 3	ACH Enabled: False
14WC-CT16-3DMW	IRONANT Step Drill Bits, Milwaukee Electric C	275.64	02/26/2026	01-255-20-72290-000-000	01 Special Operations
1D99-PH7T-FFGH	Earpiece for Midland Walkie Talkies with Mic S	112.53	02/26/2026	01-253-20-72200-000-000	01 Confinement
1KPM-H11C-J6LD	Apple Pencil Pro	94.99	02/26/2026	01-255-20-72290-000-000	01 Special Operations
1NMN-VHNM-CRCT	STARGEAR Starlink Cable Gen 3 5M/16.4FT	38.78	02/26/2026	01-252-20-72290-000-000	01 Sheriff Patrol
1NXX-341K-GYYC	SUPFINE Magnetic for iPhone 15 Case	39.96	02/26/2026	01-253-20-72200-000-000	01 Confinement
	Check Total:	561.90			
Vendor: 01494	Asbury LC14457			Check Sequence: 4	ACH Enabled: False
801590	LW184812\SheriffCar105_Outlet	92.32	02/26/2026	02-325-55-73630-000-000	02 PW
	Check Total:	92.32			
Vendor: 01491	Asbury LW184812			Check Sequence: 5	ACH Enabled: False
CHGW1160527	LW184812\PU21_Plate	223.42	02/26/2026	02-325-55-73630-000-000	02 PW

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
	Check Total:	223.42			
Vendor: 01015	ATTP - All Truck & Trailer Par			Check Sequence: 6	ACH Enabled: False
009PI430106	15031\Filters	151.63	02/26/2026	02-324-55-72260-000-000	02 PW
	Check Total:	151.63			
Vendor: 01565	Auto-chlor System Of Denver In			Check Sequence: 7	ACH Enabled: False
265600600178	Cust 2456106644 - Dishwasher rental	248.81	02/26/2026	01-253-20-72200-000-000	01 Confinement
	Check Total:	248.81			
Vendor: 01610	Axon Enterprise, Inc.			Check Sequence: 8	ACH Enabled: False
INUS423545	Acct 106775 - Pro License Bundle, BWC Unlim	6,560.24	02/26/2026	01-910-10-76500-000-000	01 Grants/Capital
	Check Total:	6,560.24			
Vendor: 02001	BFI - Foothills Landfill			Check Sequence: 9	ACH Enabled: False
5125-000064934	Cust 4-5125-0914705 _ Tipping Fees	3,322.50	02/26/2026	01-610-60-73220-000-000	01 Transfer Station
	Check Total:	3,322.50			
Vendor: 02598	Bound Tree Medical LLC			Check Sequence: 10	ACH Enabled: False
86103255	Acct 205284 - Medical Supplies	1,889.08	02/26/2026	12-230-20-72240-000-000	12 CCEMS
86106443	Acct 205284 - Diltiazem	150.98	02/26/2026	12-230-20-72240-000-000	12 CCEMS
	Check Total:	2,040.06			
Vendor: 03172	Centura Health			Check Sequence: 11	ACH Enabled: False
6934	Pharmacy Supplies Nov 25, Dec 25, and Jan 202	2,104.09	02/26/2026	12-230-20-72240-000-000	12 CCEMS
	Check Total:	2,104.09			
Vendor: 03174	Century Link			Check Sequence: 12	ACH Enabled: False
772273725	Acct 76965082 - Long Distance	12.60	02/26/2026	01-142-10-73450-000-000	01 IT
	Check Total:	12.60			
Vendor: 03295	Cintas Fire Protection, LOC 636525			Check Sequence: 13	ACH Enabled: False
0D51203608	Cust 46965 - Service Charge, Monitoring Cintas	820.00	02/26/2026	01-120-10-73650-000-000	01 Maintenance

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
	Check Total:	820.00			
Vendor: 03417	Clear Creek County Tourism Board			Check Sequence: 14	ACH Enabled: False
Feb2026	40% Lodging Tax receipts Feb 2026 - Admin Fe	28,034.87	02/26/2026	11-100-10-73500-000-000	11 Lodging Tax
	Check Total:	28,034.87			
Vendor: 03404	Clear Creek Metropolitan Rec.			Check Sequence: 15	ACH Enabled: False
1775	Punch Pass - Corp Memmbership x 102	612.00	02/26/2026	01-116-10-72210-000-000	01 Human Resources
	Check Total:	612.00			
Vendor: 03418	Clear Creek School District			Check Sequence: 16	ACH Enabled: False
2954427758	MCYA Scholarship - Online Gothic Literature cl	199.50	02/26/2026	20-517-70-74489-000-000	20 DHS
	Check Total:	199.50			
Vendor: 03420	Clear Creek Vet Clinic			Check Sequence: 17	ACH Enabled: False
44888	Fecal Floatation - Max and Uno	93.12	02/26/2026	01-365-65-73500-000-000	01 Animal Services
	Check Total:	93.12			
Vendor: 03429	ClearStar Inc.			Check Sequence: 18	ACH Enabled: False
1570582	Background Checks EMS	70.79	02/26/2026	12-230-20-73500-000-000	
1570582	Background Checks CCHAT	53.14	02/26/2026	12-235-20-73455-000-000	
1570582	Background Checks MYN	43.34	02/26/2026	21-535-65-73457-000-000	
	Check Total:	167.27			
Vendor: 03527	Colorado Barricade Co.			Check Sequence: 19	ACH Enabled: False
65169511-001	817241\CustomLegend_ObjectMarkerRgtToLft_	668.75	02/26/2026	02-324-55-72214-000-000	02 PW
	Check Total:	668.75			
Vendor: 03686	Columbia Sanitary Service Inc			Check Sequence: 20	ACH Enabled: False
72260	ADA Portable Toilet, Damage Waiver, Fuel, Win	732.00	02/26/2026	08-810-75-73571-000-000	08 Open Space
72261	PTSvc_I70&Saddleback_FloydHill	206.00	02/26/2026	02-324-55-73500-000-000	02 PW
	Check Total:	938.00			
Vendor: 03688	Columbine Paper & Maintenance			Check Sequence: 21	ACH Enabled: False

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
90727	Cust 101341 - MF Towel, 2Ply TP, Delivery Sur	222.54	02/26/2026	01-253-20-72200-000-000	01 Confinement
	Check Total:	222.54			
Vendor: 03888	CureMD.com, Inc.			Check Sequence: 22	ACH Enabled: False
INV-26-16832	First Provider License Fee, Inventory Module	548.00	02/26/2026	21-530-65-72200-000-000	21 Public Health
	Check Total:	548.00			
Vendor: 03887	Curtis Blue Line			Check Sequence: 23	ACH Enabled: False
INV1040202	Cust C148855 - Trama Dressing, Tourniquet, Ch	57.92	02/26/2026	01-252-20-72260-000-000	01 Sheriff Patrol
	Check Total:	57.92			
Vendor: 04413	George Douvas DDS			Check Sequence: 24	ACH Enabled: False
021126HK	Inmate dental	59.00	02/26/2026	01-253-20-73510-000-000	01 Confinement
	Check Total:	59.00			
Vendor: 04408	Doyle Disposal			Check Sequence: 25	ACH Enabled: False
36728	Sheriffs Garage Dumont 3 Yard Dumpster	150.00	02/26/2026	01-251-20-73550-000-000	
36728	Coroners Office 96 Gallon Trash Bin	32.00	02/26/2026	01-210-20-73410-000-000	
36728	Annex Building 1 x week 3 Yard Dumpster	75.00	02/26/2026	01-120-10-73410-000-000	
36728	Fox Lot 3 x week 4 Yard Dumpster	240.00	02/26/2026	01-120-10-73410-000-000	
36728	Resource Center Recycle	25.00	02/26/2026	21-535-65-73410-000-000	
36728	back of S.O. Bear Lot Recycle 3 Yard Dumpster	200.00	02/26/2026	01-251-20-73550-000-000	
36728	Bear Lot 3 x week 6 Yard Dumpster	400.00	02/26/2026	01-251-20-73550-000-000	
36728	Resource Center Trash	32.00	02/26/2026	21-535-65-73410-000-000	
36728	Road and Bridge Dumont 3 Yard Dumpster	150.00	02/26/2026	02-324-55-73660-000-000	
36748	Floyd Hill Open Space Trailhead	135.00	02/26/2026	08-810-75-73521-000-000	
36748	Philadelphia Mill Site	90.00	02/26/2026	08-810-75-73521-000-000	
36748	Tunnel 5 Hwy 6	120.00	02/26/2026	08-810-75-73521-000-000	
36748	Game Check Station	180.00	02/26/2026	08-810-75-73521-000-000	
36748	Dumont	45.00	02/26/2026	01-850-75-73550-000-000	
36748	Lawson White Water Park	90.00	02/26/2026	08-810-75-73521-000-000	
37171	1969 Miner St Dumpster & Recycle	650.00	02/26/2026	25-000-65-73410-000-000	25 Clinic
37198	Multiple address sites 4 Yard Dumpster and 96 G	215.00	02/26/2026	12-230-20-73210-000-000	12 CCEMS

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
	Check Total:	2,829.00			
Vendor: 05154	Environmental Systems Research			Check Sequence: 26	ACH Enabled: False
900200155	Cust 14792 - Annual Enterprise Agreement Fee S	28,400.00	02/26/2026	01-141-10-73650-000-000	01 Mapping
	Check Total:	28,400.00			
Vendor: 06158	First Veterinary Supply			Check Sequence: 27	ACH Enabled: False
EP6208	Acct GW998 - Dasuquin Adv.	157.30	02/26/2026	01-365-65-72230-000-000	01 Animal Services
	Check Total:	157.30			
Vendor: 07321	Goodyear Commercial Tire & Service Center			Check Sequence: 28	ACH Enabled: False
174-1105069	156313-0001\275/55R20_WranglerTires	1,586.52	02/26/2026	02-324-55-72215-000-000	02 PW
174-1105077	156313-0001\ScrapTireDisposal	376.71	02/26/2026	02-324-55-72215-000-000	02 PW
	Check Total:	1,963.23			
Vendor: 08928	Independent Propane Company			Check Sequence: 29	ACH Enabled: False
038332	20253\Propane_BrookvaleShop_1193YankeeCre	1,693.08	02/26/2026	02-328-55-73410-000-000	02 PW
	Check Total:	1,693.08			
Vendor: 08927	iWebVisit.com			Check Sequence: 30	ACH Enabled: False
iWeb-I02269	Monthly Hosting and Service Charge - March 20	1,750.00	02/26/2026	01-253-20-73650-000-000	01 Confinement
	Check Total:	1,750.00			
Vendor: 10031	JailCore			Check Sequence: 31	ACH Enabled: False
INV-0494	Doogie Rugged Device	824.10	02/26/2026	01-253-20-73630-000-000	01 Confinement
	Check Total:	824.10			
Vendor: 10130	JobTarget			Check Sequence: 32	ACH Enabled: False
INV148670	Cust 97793 - Additional Budget - Programmatic	1,000.00	02/26/2026	01-116-10-73310-000-000	01 Human Resources
INV148874	Cust 97793 - 2nd Additional Budget - Programm	1,000.00	02/26/2026	01-116-10-73310-000-000	01 Human Resources
	Check Total:	2,000.00			
Vendor: 11029	Keefe Commissary Network			Check Sequence: 33	ACH Enabled: False
5318051	Cust 82750 - Indigent Supplies	17.81	02/26/2026	01-253-20-72216-000-000	01 Confinement

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
	Check Total:	17.81			
Vendor: 12034	Language Link			Check Sequence: 34	ACH Enabled: False
315041	Client 30805 - Interpreter	6.05	02/26/2026	20-510-70-73500-000-000	20 DHS
322505	Client 30805 - Interpreter	30.80	02/26/2026	21-530-65-72200-000-000	
322505	Client 30805 - Interpreter	21.28	02/26/2026	20-510-70-73500-000-000	
	Check Total:	58.13			
Vendor: 16306	Legal Shield			Check Sequence: 35	ACH Enabled: False
32049 Feb26	Cust 32049 Legal Shield Feb 2026	1,680.82	02/26/2026	01-000-00-21745-000-000	01 Payroll
32049 Feb26	Cust 32049 Legal Shield Feb 2026	-0.32	02/26/2026	01-116-10-61200-000-000	01 Payroll
	Check Total:	1,680.50			
Vendor: 12145	Life-Assist, Inc			Check Sequence: 36	ACH Enabled: False
2065762	Cust 80444EMS - Hawke Basic Triage Bag, Red	109.90	02/26/2026	12-230-20-72240-000-000	12 CCEMS
	Check Total:	109.90			
Vendor: 13196	McKesson Medical-Surgical			Check Sequence: 37	ACH Enabled: False
24962492	Acct 91347025 - Epinephrine Pen, Auvi-Q Auto	284.84	02/26/2026	21-530-65-72200-000-000	21 Public Health
	Check Total:	284.84			
Vendor: 13630	Mountain Backpacks			Check Sequence: 38	ACH Enabled: False
003	Program Focus 1/19-1/23, 1/26-1/30, 2/2-2/6, 2/9	2,000.00	02/26/2026	20-515-70-73570-052-000	20 DHS
	Check Total:	2,000.00			
Vendor: 15058	Office Depot			Check Sequence: 39	ACH Enabled: False
456645598001	Stamp	48.34	02/26/2026	01-101-10-72200-000-000	01 Assessor
456671128002	Sheet protectors	10.80	02/26/2026	01-104-10-72200-000-000	01 Treasurer
	Check Total:	59.14			
Vendor: 16089	Herbert Parris MD			Check Sequence: 40	ACH Enabled: False
1252	4th Qtr Physician/Medical Services	27,500.00	02/26/2026	01-253-20-73510-000-000	01 Confinement
	Check Total:	27,500.00			

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
Vendor: 19474	Southern Tire Mart LLC			Check Sequence: 41	ACH Enabled: False
5390034593	0562407\RB111_ServiceC all_TireRepair_BV	411.68	02/26/2026	02-324-55-72215-000-000	02 PW
5390034768	0562407\RB184_ServiceC all_TireRepair_BF	461.68	02/26/2026	02-324-55-72215-000-000	02 PW
	Check Total:	873.36			
Vendor: 19619	Staples Business Advantage			Check Sequence: 42	ACH Enabled: False
6055813787	1052549\PaperTowels	30.79	02/26/2026	02-328-55-72200-000-000	02 PW
6055813788	1052549\CoffeeCreamer	38.99	02/26/2026	02-328-55-72200-000-000	02 PW
	Check Total:	69.78			
Vendor: 20176	Town Office Supply			Check Sequence: 43	ACH Enabled: False
011526 CCSO	Vehicle Impound & Recovery Report	156.25	02/26/2026	01-252-20-72200-000-000	01 Sheriff Patrol
	Check Total:	156.25			
Vendor: 20228	Trilogy Medwaste West Region			Check Sequence: 44	ACH Enabled: False
1863417	Acct 3384741 - Late Fee From 2025-11-30 to 20	5.00	02/26/2026	12-230-20-73210-000-000	12 CCEMS
	Check Total:	5.00			
Vendor: 22086	Vision Service Plan			Check Sequence: 45	ACH Enabled: False
824579602	30078554 - Vision Ins Feb 2026	720.74	02/26/2026	01-000-00-21653-000-000	01 Payroll
824579608	30078554 - COBRA Vision Ins Feb 2026	7.04	02/26/2026	01-000-00-21653-000-000	01 Payroll
824582738	30078554 - BUY UP Vision Ins Feb 2026	1,293.36	02/26/2026	01-000-00-21653-000-000	01 Payroll
	Check Total:	2,021.14			
Vendor: 23153	West Metro Fire Protection Dis			Check Sequence: 46	ACH Enabled: False
WO7346	Clear Creek 51 2018 Dodge 5500 _ Labor, Parts,	5,303.74	02/26/2026	12-230-20-73640-000-000	12 CCEMS
WO7368	Clear Creek 31 2021 Ram 4500 _ Labor, Parts, S	1,353.33	02/26/2026	12-230-20-73640-000-000	12 CCEMS
	Check Total:	6,657.07			
Vendor: 23394	WiseBatch LLC			Check Sequence: 47	ACH Enabled: False
INV001612	Xylazine Test Strip	275.00	02/26/2026	01-910-20-73570-000-000	01 Grants/Capital
	Check Total:	275.00			
Vendor: 16370	Xcel Energy			Check Sequence: 48	ACH Enabled: False

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
1253192576	Acct 53-0011733082-5 _ 1335 County Road 314	304.24	02/26/2026	01-210-20-73410-000-000	01 Coroner
	Check Total:	304.24			
Vendor: 16370	Xcel Energy			Check Sequence: 49	ACH Enabled: False
1253238114	Acct 53-0013892471-4 _ 9 W Dumont Rd	16.56	02/26/2026	01-850-75-73550-000-000	01 Recreation
	Check Total:	16.56			
	Total for Check Run:	130,134.21			
	Total of Number of Checks:	49			

Accounts Payable

Computer Check Proof List by Vendor

User: slewis
Printed: 03/04/2026 - 3:39PM
Batch: 00001.03.2026

Clear Creek County
POST OFFICE BOX 2000
GEORGETOWN, COLORADO 80444
TELEPHONE: (303) 569-3251 • (303) 679-2300

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
Vendor: 01028	AAAC Wildlife Removal			Check Sequence: 1	ACH Enabled: False
5467	Pest Control Rebait Commercial Zone	170.00	03/05/2026	12-230-20-73661-000-000	12 CCEMS
	Check Total:	170.00			
Vendor: 01217	Alpinaire Healthcare Inc			Check Sequence: 2	ACH Enabled: False
638612	27665 O2 D Tank Rental	4.00	03/05/2026	01-253-20-73510-000-000	01 Confinement
638675	27665 O2 concentrator HCPCS E1390	240.00	03/05/2026	01-253-20-73510-000-000	01 Confinement
639029	27665 O2 concentrator HCPCS E1390	240.00	03/05/2026	01-253-20-73510-000-000	01 Confinement
	Check Total:	484.00			
Vendor: 01244	Amazon			Check Sequence: 3	ACH Enabled: False
1LVJ-PG1V-7VNC	A29OGLZAIY9BN - TAILI 4 Pairs Level 3 Nee	377.96	03/05/2026	01-252-20-72290-000-000	01 Patrol
1NPY-H9X1-C9P3	A29OGLZAIY9BN Holster First Aid & Appl To	48.84	03/05/2026	01-253-20-72200-000-000	01 Confinement
1QG1-YJNR-G1RT	A29OGLZAIY9BN Xbox 360 Controller	167.94	03/05/2026	01-253-20-72216-000-000	01 Confinement
	Check Total:	594.74			
Vendor: 01491	Asbury LW184812			Check Sequence: 4	ACH Enabled: False
CHGW1161551	LW184812\PU17_Sender_Gasket_Control	748.65	03/05/2026	02-325-55-73630-000-000	02 PW
	Check Total:	748.65			
Vendor: 01471	Ascend Direct			Check Sequence: 5	ACH Enabled: False
4881	2025 Tax Notices Mailed 2026	2,508.54	03/05/2026	01-104-10-73110-000-000	01 Treasurer
	Check Total:	2,508.54			
Vendor: 01506	Aspen Smart Networks			Check Sequence: 6	ACH Enabled: False
10066	Internet service provider fees - Feb 2026	1,640.00	03/05/2026	01-142-10-73500-000-000	01 IT

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
	Check Total:	1,640.00			
Vendor: 01544	AT&T Mobility			Check Sequence: 7	ACH Enabled: False
287305331132	287305331132X02282026 Phone _ Transit	732.70	03/05/2026	01-128-10-72200-000-000	
287305331132	287305331132X02282026 Phone _ Planning and	49.76	03/05/2026	01-130-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Planning and	44.70	03/05/2026	01-130-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Transfer Stat	58.75	03/05/2026	01-610-60-73450-000-000	
287305331132	287305331132X02282026 Phone _ MYN	49.76	03/05/2026	21-535-65-73456-000-000	
287305331132	287305331132X02282026 Phone _ Transit	49.76	03/05/2026	01-128-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	40.54	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Administrati	49.76	03/05/2026	01-117-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Commission	49.76	03/05/2026	01-110-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Finance	44.70	03/05/2026	01-115-10-72200-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Human Reso	49.76	03/05/2026	01-116-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Planning and	40.54	03/05/2026	01-130-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Transit	49.76	03/05/2026	01-128-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ IT	40.54	03/05/2026	01-142-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Public Healtl	47.72	03/05/2026	21-530-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ Public Healtl	47.72	03/05/2026	21-530-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	40.54	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Commission	49.76	03/05/2026	01-110-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Public Healtl	59.92	03/05/2026	21-530-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ SD	40.54	03/05/2026	01-133-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Enviro Healt	40.54	03/05/2026	21-520-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ Public Healtl	59.92	03/05/2026	21-530-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Enviro Healt	59.92	03/05/2026	21-520-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ MYN	49.76	03/05/2026	21-535-65-73456-000-000	
287305331132	287305331132X02282026 Phone _ Administrati	49.76	03/05/2026	01-117-10-73450-000-000	

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
287305331132	287305331132X02282026 Phone _ Trails	40.54	03/05/2026	01-850-75-73450-000-000	
287305331132	287305331132X02282026 Phone _ MYN	49.76	03/05/2026	21-535-65-73458-000-000	
287305331132	287305331132X02282026 Phone _ Administrati	44.70	03/05/2026	01-117-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Administrati	44.70	03/05/2026	01-117-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ PW	44.70	03/05/2026	02-328-55-73450-000-000	
287305331132	287305331132X02282026 Phone _ Transit	50.76	03/05/2026	01-128-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ MYN	49.76	03/05/2026	21-535-65-73456-000-000	
287305331132	287305331132X02282026 Phone _ Planning and	49.76	03/05/2026	01-130-10-73450-000-000	
287305331132	287305331132X02282026 Phone _ Public Healtl	49.76	03/05/2026	21-530-65-73450-000-000	
287305331132	287305331132X02282026 Phone _ Transit	732.69	03/05/2026	01-128-10-72200-000-000	
287305331132	287305331132X02282026 Phone _ PW	49.76	03/05/2026	02-328-55-73450-000-000	
	Check Total:	3,402.34			
Vendor: 01015	ATTP - All Truck & Trailer Par			Check Sequence: 8	ACH Enabled: False
009PI432195	15031\Filters	176.49	03/05/2026	02-324-55-72260-000-000	02 PW
	Check Total:	176.49			
Vendor: 01048	Av-tech Electronics Inc			Check Sequence: 9	ACH Enabled: False
0101342-IN	10-CLE1002 -Sheriff's truck, Ext Lights, emerg	7,311.58	03/05/2026	01-259-20-73640-000-000	01 Fleet Operations
	Check Total:	7,311.58			
Vendor: 01602	Axiom Group			Check Sequence: 10	ACH Enabled: False
6655	Cove Data Protection Nov25-Jan26	5,040.00	03/05/2026	01-142-10-73651-000-000	01 IT
6706	Managed services agreement - Feb 2026	24,300.00	03/05/2026	01-142-10-73500-100-000	01 IT
6719	Software - Feb 2026	14,919.00	03/05/2026	01-142-10-73655-000-000	01 IT
	Check Total:	44,259.00			
Vendor: 02143	Bank of America, National Assoc			Check Sequence: 11	ACH Enabled: False
007629433	Acct.#ACNV06194/1_MarLeasePymnt_1Water1	3,800.35	03/05/2026	02-324-55-76100-000-000	02 PW
007629433	Acct.#ACNV06194/1_MarLeasePymnt_2PlowT	6,101.56	03/05/2026	02-325-55-76100-000-000	02 PW
	Check Total:	9,901.91			
Vendor: 02502	Black Diamond Equipment			Check Sequence: 12	ACH Enabled: False
PSI25-0233267	Cust A1325 - Momentum Harness	64.73	03/05/2026	12-230-20-72260-000-000	12 CCEMS

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
	Check Total:	64.73			
Vendor: 02545	Bob Barker Company			Check Sequence: 13	ACH Enabled: False
INV2214940	CLECO5 :Shoes, socks, trousers, blankets	1,725.69	03/05/2026	01-253-20-72265-000-000	01 Confinement
	Check Total:	1,725.69			
Vendor: 02598	Bound Tree Medical LLC			Check Sequence: 14	ACH Enabled: False
86018054	Acct 205284 - Cannula, Pediatric	289.99	03/05/2026	12-230-20-72240-000-000	12 CCEMS
86037550	Acct 205284 - Medical supplies	1,529.29	03/05/2026	12-230-20-72240-000-000	12 CCEMS
86037550	Acct 205284 - CREDIT for returned items	-892.48	03/05/2026	12-230-20-72240-000-000	12 CCEMS
86037551	Acct 205284 - Etomidate 40MG, Padded Drug C	311.98	03/05/2026	12-230-20-72240-000-000	12 CCEMS
	Check Total:	1,238.78			
Vendor: 03296	David L. Christiansen, Psy.D			Check Sequence: 15	ACH Enabled: False
7127	CCHAT Pre-employment Psch Eval	450.00	03/05/2026	12-235-20-72200-000-000	12 CCHAT
7186	CCHAT Pre-employment Psch Eval	450.00	03/05/2026	12-235-20-72200-000-000	12 CCHAT
	Check Total:	900.00			
Vendor: 06058	Colorado Support Registry			Check Sequence: 16	ACH Enabled: False
2016 DR 03-06	Case 2016 DR 30010 _ PR 03-06-2026	410.00	03/05/2026	01-000-00-21775-000-000	01 Payroll
	Check Total:	410.00			
Vendor: 06058	Colorado Support Registry			Check Sequence: 17	ACH Enabled: False
17123589 03-06	Locator Code 08000 Remittance ID 17123589 Pl	230.76	03/05/2026	01-000-00-21775-000-000	01 Payroll
	Check Total:	230.76			
Vendor: 06058	Colorado Support Registry			Check Sequence: 18	ACH Enabled: False
17121153 03-06	Locator Code 08000 Remittance ID 17121153 Pl	258.00	03/05/2026	01-000-00-21775-000-000	01 Payroll
	Check Total:	258.00			
Vendor: 04154	Delta Dental Plan Of Colorado			Check Sequence: 19	ACH Enabled: False
2318875	Account Number: 00000007785 Admin fees - Fe	1,174.55	03/05/2026	01-000-00-21652-000-000	01 Payroll
	Check Total:	1,174.55			

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
Vendor: 04742	Economy Air Conditioning & Heating Inc.			Check Sequence: 20	ACH Enabled: False
14216	Cust: CLEARCR Monthly controls contract	720.00	03/05/2026	01-120-10-73650-000-000	01 Facilities
	Check Total:	720.00			
Vendor: 06158	First Veterinary Supply			Check Sequence: 21	ACH Enabled: False
EP9306	Acct GW998 - Carprofen 100MG	81.04	03/05/2026	01-365-65-72230-000-000	01 Animal Services
	Check Total:	81.04			
Vendor: 06172	Katherine Flecksing			Check Sequence: 22	ACH Enabled: False
600345	Cleaning Dumont Restrooms	200.00	03/05/2026	01-850-75-73550-000-000	01 Recreation
600346	Cleaning Floyd Hill Restrooms	170.00	03/05/2026	08-810-75-73571-000-000	08 Open Space
	Check Total:	370.00			
Vendor: 07370	GRA Benefits Group LLC			Check Sequence: 23	ACH Enabled: False
03687-0004	Customer 0301 ACA Annual fee & Form file fee	1,941.36	03/05/2026	01-116-10-73500-000-000	01 HR
	Check Total:	1,941.36			
Vendor: 09033	City Of Idaho Springs			Check Sequence: 24	ACH Enabled: False
2.06621 02-26	Account 2.06621 Water usage 12-2-25 to 2-3-26	339.36	03/05/2026	25-000-65-73410-000-000	25 Clinic
2.3002.1 02-26	Account 2.3002.1 Water usage 12-2-25 to 2-3-26	265.16	03/05/2026	21-535-65-73410-000-000	21 MYN
	Check Total:	604.52			
Vendor: 09033	City Of Idaho Springs			Check Sequence: 25	ACH Enabled: False
12132081 RENT	Account 204741 - Annual Rent Ambulance Stati	1,129.87	03/05/2026	12-230-20-75300-000-000	12 CCEMS
	Check Total:	1,129.87			
Vendor: 08986	Idexx Distribution Inc			Check Sequence: 26	ACH Enabled: False
3192724458	Acct 189358 - SNAP 4DX Plus Test (30)	625.50	03/05/2026	01-365-65-72230-000-000	01 Animal Services
	Check Total:	625.50			
Vendor: 10070	Jefferson Center For Mental Health			Check Sequence: 27	ACH Enabled: False
26.196531-Jan 31,202(	JBBS Jan 2026	22,360.41	03/05/2026	01-910-20-73570-000-000	01 Grants/Capital
	Check Total:	22,360.41			
Vendor: 11029	Keefe Commissary Network			Check Sequence: 28	ACH Enabled: False

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
5324332-4026392	82750 Shampoo return	-1.40	03/05/2026	01-253-20-72216-000-000	01 Confinement
5327276	82750 Shampoo, Toothpaste, toothbrush, envelo	6.38	03/05/2026	01-253-20-72216-000-000	01 Confinement
	Check Total:	4.98			
Vendor: 11255	Kubat Equipment & Service			Check Sequence: 29	ACH Enabled: False
0104175	01977\ReplaceJBox&Prob eCable	5,694.95	03/05/2026	02-324-55-79400-000-000	02 PW
	Check Total:	5,694.95			
Vendor: 13379	Minnesota Elevator, Inc			Check Sequence: 30	ACH Enabled: False
1173990	Customer: CO1220 March Monthly Service	912.71	03/05/2026	01-120-10-73650-000-000	01 Facilities
	Check Total:	912.71			
Vendor: 14091	Nebraska Child Support Payment Center			Check Sequence: 31	ACH Enabled: False
3062026	Order ID CI123166 Remittance ID AR3DPS63S	161.54	03/05/2026	01-000-00-21775-000-000	01 Payroll
	Check Total:	161.54			
Vendor: 15058	Office Depot			Check Sequence: 32	ACH Enabled: False
458170008001	87008519 photo paper and sharpie	38.58	03/05/2026	01-251-20-72100-000-000	01 SO Admin
458190393001	87008519 paper towels, duster, linen, cleaner wi	238.88	03/05/2026	01-251-20-72100-000-000	01 SO Admin
	Check Total:	277.46			
Vendor: 16001	Ozark Tape & Label			Check Sequence: 33	ACH Enabled: False
25656	I Voted Stickers	40.22	03/05/2026	01-103-10-72200-000-000	01 Elections
	Check Total:	40.22			
Vendor: 18423	Rocky Mountain Water			Check Sequence: 34	ACH Enabled: False
143	Drinking water EMS	251.99	03/05/2026	12-230-20-73412-000-000	12 CCEMS
	Check Total:	251.99			
Vendor: 18809	S&B Carwash LLC			Check Sequence: 35	ACH Enabled: False
3 CCHAT	EMS (CCHAT) Car Washes Jan 2026	25.20	03/05/2026	12-235-20-73640-000-000	12 CCHAT
	Check Total:	25.20			
Vendor: 19271	Shamrock Foods Co			Check Sequence: 36	ACH Enabled: False

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
35899557	food/kitchen supplies	56.96	03/05/2026	01-253-20-73200-000-000	01 Confinement
35899558	food/kitchen supplies	4,057.73	03/05/2026	01-253-20-73200-000-000	01 Confinement
35909035	food/kitchen supplies	1,783.62	03/05/2026	01-253-20-73200-000-000	01 Confinement
35923298	food/kitchen supplies	4,073.05	03/05/2026	01-253-20-73200-000-000	01 Confinement
35935402	food/kitchen supplies	79.92	03/05/2026	01-253-20-73200-000-000	01 Confinement
35935403	food/kitchen supplies	1,606.29	03/05/2026	01-253-20-73200-000-000	01 Confinement
35935404	food/kitchen supplies	48.80	03/05/2026	01-253-20-73200-000-000	01 Confinement
	Check Total:	11,706.37			
Vendor: 19479	Southern Cross Network Cabling			Check Sequence: 37	ACH Enabled: False
2566	CAT6A cables - EMS Station 1A	625.00	03/05/2026	12-230-20-72210-000-000	12 CCEMS
	Check Total:	625.00			
Vendor: 19703	Stevinson Chevrolet			Check Sequence: 38	ACH Enabled: False
454921	LC138363 replaced customer supplied valve bod	792.31	03/05/2026	01-259-20-73640-000-000	01 Fleet Operations
	Check Total:	792.31			
Vendor: 19730	Stryker Sales Corporation			Check Sequence: 39	ACH Enabled: False
15010528	20065849 - Cardiac Monitors	312,767.81	03/05/2026	12-230-20-79500-000-000	12 CCEMS
	Check Total:	312,767.81			
Vendor: 20176	Town Office Supply			Check Sequence: 40	ACH Enabled: False
02252026 CCSO	2500 Envelopes	360.70	03/05/2026	01-251-20-72100-000-000	01 SO Admin
	Check Total:	360.70			
Vendor: 23421	Wold Architects and Engineers			Check Sequence: 41	ACH Enabled: False
11072	Project ID: 255050 Jail Need Assessment Study (	23,800.00	03/05/2026	01-100-10-77770-000-000	01 General
	Check Total:	23,800.00			
Vendor: 16370	Xcel Energy			Check Sequence: 42	ACH Enabled: False
1253242413	Acct 53-0014527114-0_ 3204 CR 312 Unit Temp	69.69	03/05/2026	01-120-10-73410-000-000	01 Facilities
	Check Total:	69.69			
Vendor: 16370	Xcel Energy			Check Sequence: 43	ACH Enabled: False

Invoice No	Description	Amount	Pmt Date	Acct Number	Reference
057977052	Acct 53-0015115571-1 _ 3204 Stanley Rd	188.55	03/05/2026	01-120-10-73410-000-000	01 Facilities
	Check Total:	188.55			
Vendor: 26069	ZOOM Video Communications			Check Sequence: 44	ACH Enabled: False
INV343989546	Acct 52675069 - Phone Monthly Usage Feb 202	21.27	03/05/2026	01-142-10-73450-000-000	01 IT
	Check Total:	21.27			
	Total for Check Run:	462,733.21			
	Total of Number of Checks:	44			

Payroll

Full name	February 25, 2026	March 6, 2026
Aab,Nickolas		$4,015.80
Alex,Mark		$3,172.35
Allen,Tristen		$3,036.01
Alvarado,Marilyn		$3,112.88
Bailey,Erik		$2,895.36
Banuelos,Justin		$3,122.96
Barton,Allen		$3,659.63
Beale,Ryan		$3,992.00
Beer,Alexander		$4,033.88
Behring,Stephanie		$4,284.96
Bell,Charleen		$4,027.11
Bellows,Breynden		$4,478.50
Beretta,John		$3,816.75
Berger,Alexis		$2,750.03
Bertelsen,Dustin		$2,569.12
Bertrand,Adam		$3,835.80
Blugerman,Delia		$1,092.42
Boggs-Blake,Clarissa		$4,381.37
Boldt,Nicholas		$4,816.07
Bowen,Natasha		$6,804.38
Brokaw,Melissa		$4,056.61
Brown,Matthew		$6,290.64
Buehrle,Joel		$4,544.87
Bunschoten,Alexander		$4,155.04
Buss,Stephen		$3,555.00
Butcher,Jonathan		$2,216.32
Butler,John		$4,337.54
Campbell,Beau		$6,105.91
Canada,Stacey		$3,573.69
Carbon,Brandon		$3,395.70
Carmelo,Lloyd		$2,772.04
Cassano,Sarah		$6,238.73
Church,Clark		$4,183.20
Comb,Madison		$3,347.00
Conrad,Rachel		$3,168.00
Corbett,Brenda		$3,394.34
Crawley,Aaron		$5,168.00
Crumrine,Nykolas		$3,221.02
Dale,Thomas		$2,672.60
Danielson,David		$4,896.54
Davis Lentz,Nichole		$3,185.75
DeMaio,Robin		$2,003.20
Denbow,Steven		$3,349.92
DePan,Matthew		$3,963.18
Dibiase,Nicholas		$4,668.78
Doll,Elizabeth		$2,302.53

Duvic,Erica		$3,184.23
Edge,Susan		$827.75
Elmquist,Reed		$1,809.28
Erickson,Troy		$3,100.88
Faselt,Gary		$191.46
Fontana,Aiden		$2,970.08
Fortune,Carol Ann		$6,851.20
Frey,Tammy		$3,796.28
Fulton,Jennifer		$4,299.80
Gallagher,Elizabeth		$5,003.33
Garcia,Jessica		$2,352.81
Garner,David		$3,262.20
Gee,Donna		$3,409.35
Giannuzzi,Mark		$3,194.26
Gilchrist,Mitchell		$3,395.70
Gillingham,Sarah		$4,065.14
Graber,Elizabeth		$2,717.60
Gray,Ruth		$3,953.32
Greek,Louis		$280.00
Greenhagen,Alexandra		$1,093.12
Gudmundsson,Snorri		$2,722.67
Guillen-Turner,Stephanie		$2,175.52
Guzik,Joshua		$4,370.23
Guzman,Nicolas		$2,826.11
Hague,Gary		$3,085.29
Hallgren,Christopher		$2,540.44
Harlow-Schalk,Rachel	$28,236.24	
Harsch,Michael		$3,893.37
Hartman-Ball,Jodie		$3,891.54
Hegmann,Christopher		$1,920.58
Hemmele,Brian		$2,560.00
Hendricks,Amy		$2,437.76
Hiler,Megan		$3,853.02
Holck,Timothy		$2,636.80
Honig,Zachary		$3,535.53
Horton,Dennis		$2,348.00
Hutchinson,Clark		$5,201.04
Ibarra Perez,Luz		$2,387.24
Ikesakes,Zeke		$57.30
Imrie,Nicolas		$5,701.14
Jeffers,Brandon		$2,249.60
Johnson,Donnelle		$3,834.81
Kopsch,Christopher		$4,015.81
Kuper,Emily		$3,861.40
Lamb,Stephanie		$2,359.50
Lamoureux,Marc		$3,081.60
LeBarron,Sue		$3,026.72
Leben,Lisa		$4,441.53
Lee,Carol		$3,409.34

Lenz,Kayli	$2,101.60
Lewis,Sarah	$2,651.24
Lichtman,Peter	$7,345.30
Lievers,Christine	$3,737.62
Lindemann,Austin	$3,716.64
Lipson,Bryce	$2,591.56
Lloyd,Rebecca	$3,891.54
Lucas,Isaac	$5,304.31
Ludolph,Shawn	$3,008.15
MacFarland,Paul	$5,943.92
Macilwaine,Graeme	$2,675.20
Manasjan,John	$4,487.01
Manley,John-Mark	$2,684.80
Marlin,George	$3,409.35
Marquardt,Katrina	$5,341.16
Marquardt,Seth	$5,487.84
Mauer,Darren	$2,792.00
McAllister,Garrett	$4,911.54
McCarthy,Kayla	$2,009.12
McPhillips,Raymond	$1,841.46
Meyer,Logan	$1,457.60
Miller,David	$2,848.80
Moon,Thomas	$2,701.28
Morgan,Jeromie	$3,157.80
Morris,Rosemarie	$3,001.18
Morrow,Brittany	$5,496.98
Mulleneaux,Elizabeth	$2,564.58
Neal,Justis	$3,615.81
Nelson,Cindy	$2,416.80
Nelson,Fred	$4,571.78
Nelson,Nichol	$3,938.30
Neville,Thomas	$3,169.25
Nichols,Mark	$5,484.70
Nicholson-Kluth,Holly	$5,399.16
Opel,Perrin	$3,929.40
Ovington,Suzanne	$2,150.04
Parker,Joseph	$1,623.68
Parker,Katherine	$6,734.63
Petty,Weston	$4,427.01
Plett,Virginie	$2,027.04
Porter,Ashton	$3,395.70
Post,Marcella	$2,961.14
Prentner,Donna	$3,528.97
Prinzler,Preston	$3,327.80
Prows,David	$3,549.13
Rabus,Jeff	$4,566.78
Reimer,Nanette	$4,199.70
Reynolds,Matthew	$2,038.80
Roach,James	$2,716.00

Roberts,Blake	$2,842.80
Roderick,Emily	$2,716.44
Rodriguez-Gonzales,Dominic	$4,409.00
Rodriguez,Perla	$2,231.96
Rohloff,Colton	$7,330.30
Romero Delatorre,Jose	$3,087.84
Rubin,Eric	$5,348.08
Ruholl,Stephen	$3,565.38
Ryan,Timothy	$5,957.57
Schell,Lisa	$2,358.40
Schildkret,Ilyssa	$3,384.64
Scribner,Brittany	$1,272.60
Skates,Sean	$4,000.80
Smith,Megan	$3,495.00
Sohlden,Alexis	$3,928.21
Spinner,Peggy	$3,311.80
Steadman,Betsy	$4,746.68
Steinbach,Mark R	$3,043.84
Stepter,Bradley	$5,620.13
Straley,David	$4,692.44
Streepey,Edward	$6,153.84
Sukovich,Mathew	$3,600.80
Sullivan,Cole	$2,600.72
Swanson,Joleen	$2,596.13
Tableman,Martha	$3,200.91
Taylor,Matthew	$4,874.14
Tennant,Denise	$2,375.20
Tetzlaff,Aron	$4,861.08
Teuling,Matthew	$1,774.80
Theisen,Jessica	$1,926.75
Thomas,Adam	$2,890.04
Thornton,Ronald	$5,075.65
Tilley,Carrie	$1,711.00
Troia,Latricia	$2,472.32
Troia,Tracy	$2,467.80
Trouche,Peter	$3,289.08
Tyll,Keegen	$3,214.28
Ulishney,Michael	$3,119.60
Valdez,Julia	$2,231.80
Vanbourgondien,Melissa	$3,571.38
Vieweg,Keith	$3,287.76
Walker,Jamie	$2,420.60
Walsh,Kayli	$3,986.68
Watanabe,Gavin	$3,707.55
Wayant,Erika	$3,030.34
Wertenberger,Ariel	$3,632.60
West,Larry	$3,184.60
Whetstine,Zachary	$3,063.80
Whisenand,Julie	$2,572.80

Wiggins,Jason		$3,929.40
Wild-Johnson,Molly		$2,022.04
Wilson,Karen		$1,296.00
Yeager,Patrick		$6,367.68
Grand Total	$28,236.24	$683,629.49

Reimbursements

Full name	**March 6, 2026**
Beale,Ryan	$30.00
Denbow,Steven	$120.00
Hague,Gary	$10.48
Ludolph,Shawn	$100.00
Grand Total	$260.48

Clear Creek County
Electronic Transfer Orders 2026

PAYROLL DATE (or) DATE OF TRANSFER	PAYEE	**Description**	**FICA SS EMPLOYEE**	**FICA SS EMPLOYERS**	**MEDIC**	**MEDIC MATCH**	**FWT**	**TOTAL AMOUNT**
2/25/2026	EFTPS	Federal Taxes	$1,750.65	$1,750.65	$409.43	$409.43	$8,721.46	$13,041.62
2/25/2026	Colorado Dept. of Revenue	State Taxes						$1,215.00
2/25/2026	Springbrook	Off-Cycle Payroll Severence						$16,139.70
2/27/2026	RMR	FSA Replenishment						$2,326.65
3/1/2026	UMR	Stop Loss & Fees						$98,256.40
3/3/2026	Delta Dental	Claims Paid						$999.10
3/6/2026	RMR	HSA Contribution						$10,650.70
3/6/2026	Empower	Retirement Contributions						$73,080.93
3/6/2026	Springbrook	Payroll						$454,844.42
3/6/2026	EFTPS	Federal Taxes	$40,677.64	$40,677.64	$9,513.31	$9,513.31	$73,559.99	$173,941.89
3/6/2026	Colorado Dept. of Revenue	State Taxes						$23,645.00
		Total transfer from 02/25 to 03/06/2026						**$868,141.41**

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Stoy Streepey, Public Works Director
Subject: Consideration of Approval of Resolution R-26-27, a Resolution Authorizing the Disposal of Seven Clear Creek County Vehicles

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RECOMMENDATION

Staff recommends approval of Resolution #26-27, a Resolution Authorizing the Disposal of Seven Clear Creek County Vehicles.

BACKGROUND

The Public Works Division is disposing of assets that are not used on a regular basis, expensive to maintain, and/or are no longer serviceable. The Board of County Commissioners typically authorizes the disposal of assets of this nature by Resolution. The vehicles and equipment recommended for disposal at this time are:

County Asset No.	Vehicle Year	Make	Model	VIN	Estimated Value
01080	2002	EZ Liner Striping Machine	AL120-EZ	1C 02362PS	$6,000
n/a	1973	General Trailer	n/a	9S7327	$750
01243	2008	Western Star Dump Truck	4900SA	5KKKALCV78PZ74266	$65,000
01154	1976	Fruehoff Water Tanker Trailer	OMX724410	OMX724410	$5,000
01047	1999	Stewart-Stevenson Snow Blower	SSLB700	2017H	$22,000
01065	2001	Caterpillar Motor Grader	140G AWD	72V14246	$39,900
01070	2001	Ford F250	F-250	1FTNF21S31EB60037	$3,875
				Total	**$142,525**

ANALYSIS

The Public Works Fleet Division has determined that the seven vehicles should be disposed of via public auction. The vehicles and equipment included in this request are expensive to maintain and no longer being used. The disposal of similar assets in recent years suggests that selling these assets at a public auction will generate more revenue and require less staff time than selling them via advertised closed bid.

Board Agenda Background

FISCAL IMPACT

The Public Works Road & Bridge Department budgeted the sale of assets (revenue) in the amount of $50,000 in the approved 2026 budget. The proceeds from the sale of the vehicles and equipment shown above will be credited to this account.

ATTACHMENTS:

1. Resolution R-26-27
2. Equipment Disposal List

R-26-27

RESOLUTION AUTHORIZING THE DISPOSAL OF SEVEN CLEAR CREEK COUNTY VEHICLES

WHEREAS, pursuant to C.R.S. § 30-11-101(1)(c), the Board of County Commissioners for Clear Creek County, Colorado, is empowered to sell, convey, or exchange any real or personal property owned by the County; and

WHEREAS, Clear Creek County desires to dispose of seven vehicles in its fleet that are no longer being used; and

WHEREAS, the seven vehicles proposed to be disposed of are 1) a 2022 EZ Liner Striping Machine Model AL120-EZ, VIN# 1C 02362PS, with approximately 527 hours of use, and an approximate value of $6,000.00; 2) a 1793 General Trailer, VIN# 9S7327, with an approximate value of $750.00; 3) a 2008 Western Star Dump Truck Model 4900SA, VIN# 5KKKALCV78PZ74266, with approximately 83,474 miles and an approximate value of $65,000.00; 4) a 1976 Fruehoff Tanker Trailer, VIN# OMX724410, with an approximate value of $5,000.00; 5) a 1999 Stewart Stevenson Snow Blower Model SSLB700, VIN# 2017H, with approximately 52 hours of use and an approximate value of $22,000.00; 6) a 2001 Caterpillar Motor Grader Model 140G AWD, VIN# 72V14246, with approximately 5,373 hours and an approximate value of $39,900.00; and 7) a 2001 Ford F-250, VIN# 1FTNF21S31EB60037, with approximately 187,959 miles and an approximate value of $3,875.00; and

WHEREAS, these seven vehicles have been determined to be in fair condition, and Clear Creek County Public Works recommends they be sold by public auction; and

WHEREAS, the Board of County Commissioners of Clear Creek County, Colorado desires to facilitate the disposal of these vehicles in the most convenient way possible.

NOW, THEREFORE, BE IT RESOLVED, that the above mentioned vehicles may be disposed of by public auction.

BE IT FURTHER RESOLVED, that Clear Creek County Public Works Director Stoy Streepey is authorized to execute on behalf of Clear Creek County, Colorado, title and other documents reasonably necessary to transfer ownership of these vehicles from Clear Creek County to the purchaser.

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ADOPTED this 17th day of March, 2026, at a regularly scheduled meeting of the Clear Creek County Board of County Commissioners.

_____
Rebecca Lloyd, Chair

_____
Jodie Hartman-Ball, Commissioner

ATTEST:

_____
George Marlin, Commissioner

_____
Deputy Clerk and Recorder
For Brenda L. Corbett
Clear Creek County Clerk and Recorder

CLEAR CREEK COUNTY
COLORADO

Public Works - Vehicle Disposal April 2026

PW Unit No.	County Asset No.	Vehicle Year	Make	Model	VIN	Mileage or Hour meer	Original Cost	MarketBook Auction Value	Original Purchase Date	Title/Bill of Sale	Additional Notes:
RB031	01080	2002	EZ Liner Stiping Machine	AL120-EZ	1C 02362PS	527 hrs.	$ 30,075.00	$ 6,000.00	4/15/2002	Bill of Sale	Bill of Sale for Buyer attached
RB032	n/a	1973	General Trailer	n/a	9S7327	n/a	$ 1,654.00	$ 750.00	11/3/2004	Title No. 51E138061	
RB069	01243	2008	Western Star Dump Truck	4900SA	5KKKALCV78PZ74266	83,474	$ 174,975.00	$ 65,000.00	4/4/2008	Title No. 51E150200	
RB073	01154	1976	Fruehoff Water Tanker Trailer	OMX724410	OMX724410	n/a	$ 11,000.00	$ 5,000.00	10/20/2005	Title No. 51E131711	
RB183	01047	1999	Stewart-Stevenson Snow Blower	SSLB700	2017H	52 hrs.	$ 54,998.00	$ 22,000.00	8/23/2000	Bill of Sale	Bill of Sale for Buyer attached
RB108	01065	2001	Caterpillar Motor Grader	140G AWD	72V14246	5,373 hrs.	$ 199,580.00	$ 39,900.00	6/1/2001	Bill of Sale	Bill of Sale for Buyer attached
RB001	01070	2001	Ford F250	F-250	1FTNF21S31EB60037	187959	$ 28,572.00	$ 3,875.00	9/26/2001	Title No. 51E124860	

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Nanette Reimer, Executive Assistant/Senior Paralegal
Subject: Consideration of Approval of Resolution R-26-28, a Resolution Authorizing the Disposal of One Clear Creek County Vehicle

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RECOMMENDATION

We are recommending that the Board of County Commissioners (BOCC) for Clear Creek County approve resolution R-26-28, a Resolution Authorizing the Disposal of One Clear Creek County Vehicle.

BACKGROUND

A vehicle used by the Clear Creek County Public Works Department sustained severe damage due to a motor vehicle accident and has been declared a total loss by our insurance carrier. It is the policy of our insurance carrier to leave the vehicle in the possession of the owner when a vehicle is declared to be a total loss. Due to the very poor condition of this vehicle, Public Works is recommending the Board authorize disposal of this vehicle via sale to a scrap yard.

ATTACHMENT:

1. Resolution R-26-28

R-26-28

RESOLUTION AUTHORIZING THE DISPOSAL OF ONE CLEAR CREEK COUNTY VEHICLE

WHEREAS, pursuant to C.R.S. § 30-11-101(1)(c), the Board of County Commissioners for Clear Creek County, Colorado, is empowered to sell, convey, or exchange any real or personal property owned by the County; and

WHEREAS, Clear Creek County desires to dispose of one vehicle in its fleet described as a 2018 Ford F-350 Super Duty XL, 2 door regular cab, VIN# 1FTRF3B64JEB09901, with 33,853 miles, and an approximate salvage value of $950.00; and

WHEREAS, this vehicle has sustained severe damage due to a motor vehicle accident and has been declared a total loss by our insurance carrier, and

WHEREAS, due to this vehicle being declared a total loss, Clear Creek County Public Works recommends it be sold to a scrap yard for disposal; and

WHEREAS, the Board of County Commissioners of Clear Creek County, Colorado, desires to facilitate the disposal of this vehicle in the most convenient way possible.

NOW, THEREFORE, BE IT RESOLVED, that the above-mentioned vehicle may be disposed of through sale to a scrap yard.

BE IT FURTHER RESOLVED, that Clear Creek County Public Works Director Stoy Streepey is authorized to execute on behalf of Clear Creek County, Colorado, title and other documents reasonably necessary to transfer ownership of this vehicle from Clear Creek County to the purchaser.

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ADOPTED this 17th day of March, 2026, at a regularly scheduled meeting of the Clear Creek County Board of County Commissioners.

_____
Rebecca Lloyd, Chair

_____
Jodie Hartman-Ball, Commissioner

ATTEST:

_____
George Marlin, Commissioner

_____
Deputy Clerk and Recorder
For Brenda L. Corbett
Clear Creek County Clerk and Recorder

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Nanette Reimer, Executive Assistant/Senior Paralegal
Subject: Consideration of Approval of a Letter to the Colorado Department of Transportation Supporting the Disposal Parcels of Land by the Colorado Department of Transportation Related to CDOT/Clear Creek County Greenway Project #C0703-452

RECOMMENDATION

We recommend the Board of County Commissioners (BOCC) for Clear Creek County approve the attached letter supporting the disposal of certain property owned by the Colorado Department of Transportation (CDOT) for land related to CDOT/Clear Creek County Greenway Project #C0703-452.

BACKGROUND

Clear Creek County has been working with CDOT for several years to complete the transfer of property owned by CDOT that was developed to serve as trailhead parking in the Dumont area. There have been several delays due to staff turnover for both the County and CDOT and also changes in the surveys and legal descriptions for the related properties; however, this transfer is finally nearing completion. In the course of processing this property transfer, CDOT identified another parcel it wishes to transfer into County ownership, adding to the delays. A map showing the location of these parcels is attached for reference. The Federal Highway Administration (FHWA) is requiring a statement from the County, in the form of the attached letter, stating our request for disposal of these parcels and verifying the understanding and requirements for the transfer of these parcels to complete the FHWA review process.

CONCLUSION

This letter satisfies the requirements of FHWA and will allow the property transfer to be completed.

ATTACHMENTS:

1. Letter Supporting Disposal of Parcels by CDOT
2. Maps Showing the East Parcel
3. Map Showing the West Parcels

Clear Creek County, Colorado

Commissioners
George Marlin, District 1
Rebecca Lloyd, District 2
Jodie Hartman-Ball, District 3

County Manager
Colton Rohloff

County Attorney
Peter A. Lichtman

Physical Address:
405 Argentine Street
Georgetown, Colorado
80444

Mailing Address:
P.O. Box 2000
Georgetown, Colorado
80444

Phone
(303) 679-2300

Website:
www.clearcreekcounty.us

Facebook:
ClearCreekCountyCOgov
YouTube:
@clearcreekcountyco
Instagram:
@clearcreekcountyco

March 17, 2026

Katie Madden
Colorado Department of Transportation
Property Management Supervisor
2829 West Howard Place
Denver, CO 80204

Dear Ms. Madden:

As a result of the CDOT/Clear Creek County Greenway project #C0703-452 constructed on or about 2022, Clear Creek County desires for CDOT to dispose of Parcels 146-EX, 147-EX, 148-EX, 149-EX, 151-EX, 152-EX, 153-EX, 154-EX, 155-EX (hereinafter "Trailhead Properties"), and 119-EX (hereinafter "Public Works Parcel") to the County for nominal value for continued use of the Trailhead Properties as **a trailhead and parking lot**, and for use of the Public Works Parcel to continue to provide public access to Clear Creek for fishing and similar uses, subject to the retention and maintenance of the existing Jersey barrier retaining structure along the southern boundary supporting the adjacent County property.

Clear Creek County has maintained this trailhead, parking lot and surrounding area since completion of the CDOT/Clear Creek County Greenway project and this disposal will formalize the transfer of ownership of the Trailhead Properties to the County for continued use as a trailhead and parking lot. The transfer of ownership of the Public Works Parcel will allow that property to continue to provide public access to Clear Creek for fishing and similar uses.

The disposal request is in accordance with 23 CFR 710.403(a), (c), (d), (e), and (f), and this request for disposal shall affirmatively provide for adherence to requirements contained in 23 CFR 710.409 and includes the information as required in 23 CFR 710.405(e)(1) through (9)."

We understand and acknowledge that in the event the Trailhead Properties being conveyed fail to be used for nonproprietary public use, this transaction and any deeds issued for the Trailhead Properties shall become null and void and ownership of the Trailhead Properties shall revert to the Department of Transportation, State of Colorado.

Sincerely,

Board of County Commissioners for Clear Creek County

Rebecca Lloyd, Chair

Jodie Hartman-Ball, Commissioner

George Marlin, Commissioner

Colorado Department of Transportation
425 Corporate Circle
Golden, CO 80401
Phone: 720-497-6983
Fax: 720-497-6901
Region 1 West

Sheet Revisions

Date	Description	Initials
02/18/25	Revisions to A-Line	RJD
06/02/25		DMC

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

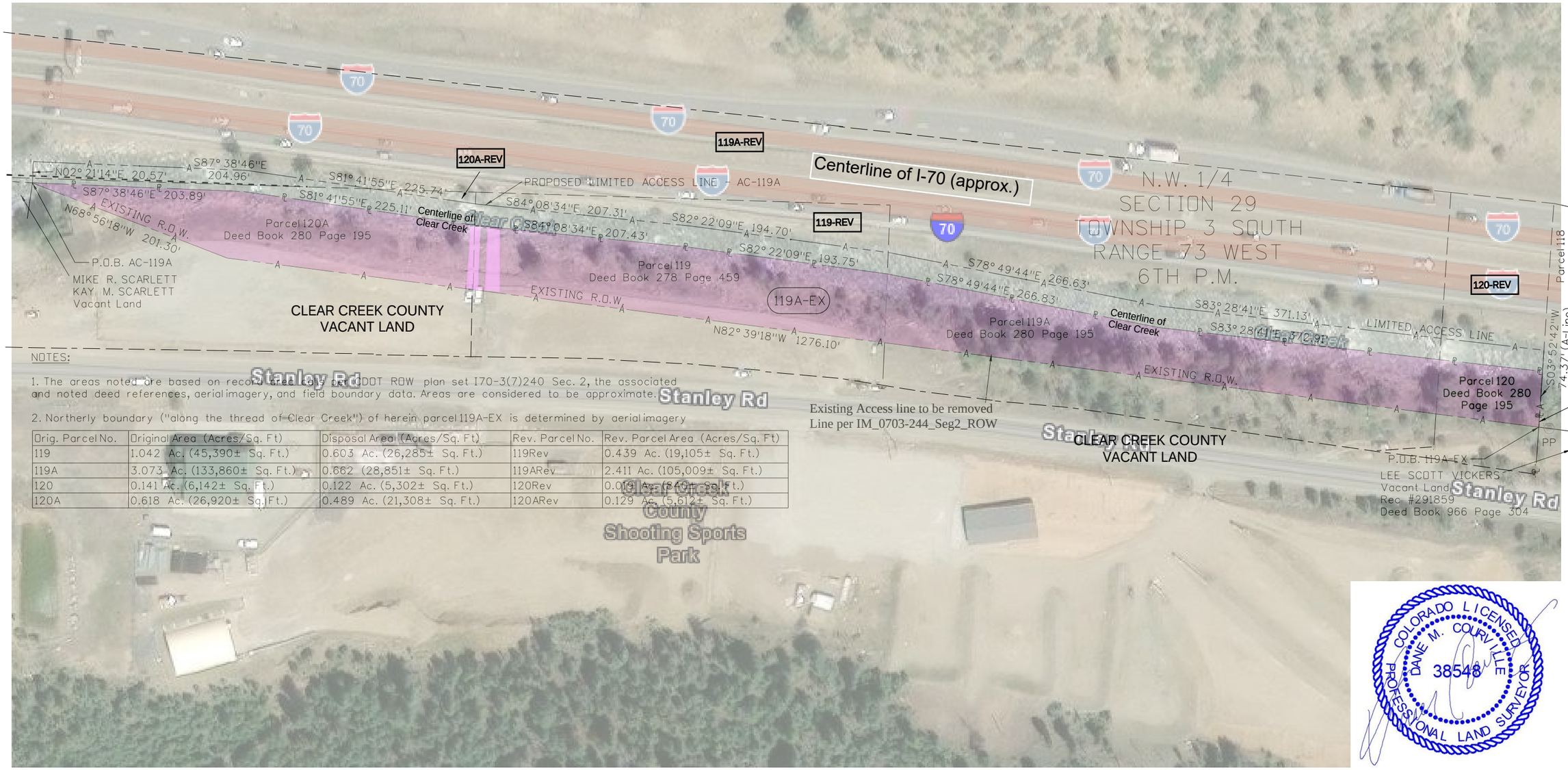
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

0' 25' 50' 100'

Right of Way
Exhibit
Project Number: I70-3(7)240 Sec. 2
Project Location: Dumont, CO

Project Code:	Last Mod. Date	Subset	Sheet No.
	6/3/2025		2

Exhibit "A"
Parcel 119A-EX
dated: 6/3/2025



NOTES:

1. The areas noted are based on record areas of CDOT ROW plan set I70-3(7)240 Sec. 2, the associated and noted deed references, aerial imagery, and field boundary data. Areas are considered to be approximate.

2. Northerly boundary ("along the thread of Clear Creek") of herein parcel 119A-EX is determined by aerial imagery

Orig. Parcel No.	Original Area (Acres/Sq. Ft)	Disposal Area (Acres/Sq. Ft)	Rev. Parcel No.	Rev. Parcel Area (Acres/Sq. Ft)
119	1.042 Ac. (45,390± Sq. Ft.)	0.603 Ac. (26,285± Sq. Ft.)	119Rev	0.439 Ac. (19,105± Sq. Ft.)
119A	3.073 Ac. (133,860± Sq. Ft.)	0.662 (28,851± Sq. Ft.)	119ARev	2.411 Ac. (105,009± Sq. Ft.)
120	0.141 Ac. (6,142± Sq. Ft.)	0.122 Ac. (5,302± Sq. Ft.)	120Rev	0.019 Ac. (840± Sq. Ft.)
120A	0.618 Ac. (26,920± Sq. Ft.)	0.489 Ac. (21,308± Sq. Ft.)	120ARev	0.129 Ac. (5,612± Sq. Ft.)

COLORADO LICENSED
DANE M. COURVILLE
38548
PROFESSIONAL LAND SURVEYOR

2/18/2025 dreelinr j 12:50:38 PM C:\Users\dreelinr j\Desktop\Projects\ROW Projects\Dumont Parcels\Dumont_Disposal_Exhibit.dgn

Colorado Department of Transportation
425 Corporate CIrcle
Golden, CO 80401
Phone: 720-497-6983
Fax: 720-497-6901
Region 1 WEST

Sheet Revisions		
Date	Description	Initials
02/18/25	Revisions to A-Line	RJD
	Remove Parcel 156 from Disposal	

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Right of Way
Exhibit
Project Number: I70-3(7)240 Sec. 2
Project Location: Dumont, CO

Project Code:	Last Mod. Date	Subset	Sheet No.
	02/25/2026		1

N
0' 25' 50' 100'
1" = 100'

COLORADO LICENSED
DANE M. COURVILLE
38548
3/2/2026
PROFESSIONAL LAND SURVEYOR

Exhibit "A"
Parcel 146-EX, 147-EX,
148-EX, 149-EX, 151-EX,
152-EX, 153-EX,
154-EX and 155-EX
dated 7/25/2025

N.E. 1/4
SECTION 30
TOWNSHIP 3 SOUTH
RANGE 73 WEST
6TH P.M.

approx. centerline of I-70

151-REV
Parcel 157Rev2
Deed Book 282 Page 175
S64°00'00"E
44.80'
PROPOSE LIMITED
ACCESS LINE - AC-146
North Bank Clear Creek
S77°59'45"E 331.30'
EXISTING R.O.W.
N77°16'00"E 190.42'
RSJ STORAGE LLC ET AL
211 W Dumont Road
Parcel 152
Deed Book 278 Page 53
P.O.B. OF AC-146
N48°58'00"W
133.33'
Parcel 155
Deed Book 280
Page 203
N17°34'00"E
57.02'
Parcel 154
Deed Book 280
Page 203
151-EX
Parcel 151
Deed Book 286
Page 113
S70°49'16"E 141.01'
S49°33'28"E 418.32'
WEST DUMONT ROAD
(Route No. 310)
S84°29'00"W
106.68'
TROY WILLIAMS
188 W Dumont Road
Rec #302767
Deed Book 1017 Page 92
155-EX
154-EX
153-EX
Parcel 153
Deed Book 280
Page 187
N78°33'30"W 224.65'
Parcel 149
Deed Book 278
Page 53
149-EX
148-EX
Parcel 148
Deed Book 277
Page 264
146-REV
Parcel 146
Deed Book 280
Page 187
PROP. LIMITED ACCESS
North Bank Clear Creek
BEGINNING OF
AC-146 (BOA)
N88°19'32"E 59.22'
END OF
AC-146 (EOA)
STANLEY ROAD
FEDERAL REAL ESTATE
HOLDINGS, LLC
3767 Stanley Road
Rec #305366
Deed Book 1028
Page 896
Clear Creek County
Parcel 156
Deed Book 508
Page 313
N64°01'00"W
18.50'
152-EX
JUDY ARLENE FARRIS AND
MITCHELL KANE FARRIS
158 W Dumont Road
Rec #300301
Deed Book 1005 Page 818
DANIEL LOVATO AND
JAMIELYN L. LOVATO
84 W Dumont Road
Rec #202851
Deed Book 603
Page 517
TIMOTHY P. KING
AND
MARCIE F. KING
72 W Dumont Road
Rec #231934
Deed Book 724
Page 222
ROW
EXISTING R.O.W.
N50°33'00"W 417.30'
IGNACIOUS PROPERTIES, LLC
20 W Dumont Road
Rec #268332
Deed Book 869 Page 869
Existing Barrier Line Per
IM_0703-244_Seg2_ROW (see note 3
herein) to be removed; barrier was
located to be the north edge of
pavement for Dumont Road.
Rc = 818.60'
Δc = 25°04'35"
Lc = 358.27'
C = 355.42'
CB = N76°52'01"W
147-EX
Parcel 147
Deed Book 278
Page 53
S04°10'14"W
65.16'
PROP. LIMITED ACCESS
LINE - AC-146
N76°36'30"E 88.19'
N76°36'30"E
88.19'
S13°23'30"E
45.03'
EXISTING R.O.W.
N04°10'14"E
28.27'
P.O.T. AC-146
S85°49'46"E
72.50'
S23°20'19"W 157.24'
STANLEY ROAD
(Route No. 312)
Existing Barrier Line Per
IM_0703-244_Seg2_ROW (see note 3
herein) to be removed; barrier was
located to be the north edge of
pavement for Dumont Road.
KARL J KARNER TRUST
Vacant Land
Rec #313707
Deed Book 1062 Page 413

NOTES:

1. The areas noted are based on record area calls per CDOT ROW plan set I70-3(7)240 Sec. 2, the associated and noted deed references, aerial imagery, and field boundary data. Areas are considered to be approximate.

2. Northerly boundaries of herein parcels 146-EX and 151-EX are determined by surveyed shots at ordinary highwater mark on the north bank of Clear Creek.

Orig. Parcel No.	Original Area (Acre/Sq. Ft)	Disposal Area (Acres/Sq. Ft)	Rev. Parcel No.	Rev. Parcel Area (Acres/Sq. Ft)
146	4.235 Ac. (184,477± Sq. Ft.)	1.475 Ac. (64,251± Sq. Ft.)	146Rev	2.760 (120,226± Sq. Ft.)
151	1.855 Ac. (81,544± Sq. Ft.)	0.322 Ac. (14,028± Sq. Ft.)	151Rev	1.533 Ac. (67,516± Sq. Ft.)

2/25/2026 pennell 3:14:57 PM C:\Users\pennell\Documents\Projects\70\I-70 Dumont Parcels 146EX 151EX\Dumont_Disposal_Exhibit.dgn

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Nanette Reimer, Executive Assistant/Senior Paralegal
Subject: Consideration of Approval of a Structure Agreement between Clear Creek County, Colorado and Mountain Top Environmental, LLC.

RECOMMENDATION

We are recommending the Clear Creek County Board of County Commissioners (BOCC) approve the Structure Agreement between Clear Creek County, Colorado and Mountain Top Environmental, LLC.

BACKGROUND

Mountain Top Environmental, LLC. (MTE) has applied to the Mined Land Reclamation Board for a permit to allow them to remove an extensive pile of mine tailings on property adjacent to Santa Fe Mine Road ("Project"). This Project is expected to take several years. As part of the permit application process, MTE is required to notify the owner of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the effected land if a mining operation will adversely affect the stability of that land and obtain a Structure Agreement as needed with adjacent property owners. Santa Fe Mine Road is located within 200 feet of their Project area and therefore MTE has provided notice of their Project to the County and is requesting that we enter into a Structure Agreement for their Project.

This Structure Agreement acknowledges the potential for damage to Santa Fe Mine Road as a result of the MTE Project and certifies that Clear Creek County shall be compensated for any damage to Santa Fe Mine Road from their Project.

Clear Creek County Public Works has reviewed the Project and has issued MTE a Right-of-way Permit for their Project. With a Right-of-way Permit issued, Clear Creek County Public Works supports the County's execution of this Structure Agreement.

ATTACHMENTS:

1. Structure Agreement
2. Project Maps

Structure Agreement

This letter has been provided to you as the owner of a structure on or within two hundred (200) feet of a proposed mine site. The State of Colorado, Division of Reclamation, Mining and Safety ("Division") requires that where a mining operation will adversely affect the stability of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the affected land, the Applicant shall either:

a) Provide a notarized agreement between the Applicant and the Person(s) having an interest in the structure, that the Applicant is to provide compensation for any damage to the structure; or

b) Where such an agreement cannot be reached, the Applicant shall provide an appropriate engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or

c) Where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility. (*Construction Materials Rule 6.3.12 and Rule 6.4.19 & Hard Rock/Metal Mining Rule 6.3.12 and Rule 6.4.20)*

The Colorado Mined Land Reclamation Board ("Board") has determined that this form, if properly executed, represents an agreement that complies with Construction Materials Rule 6.3.12(a), Rule 6.4.19(a), and C.R.S. § 34-32.5-115(4)(e) and with Hard Rock/Metal Mining Rule 6.3.12(a), Rule 6.4.20(a), and C.R.S. § 34-32-115(4)(d). This form is for the sole purpose of ensuring compliance with the Rules and Regulations and shall not make the Board or Division a necessary party to any private civil lawsuit to enforce the terms of the agreement or create any enforcement obligations in the Board or the Division.

The following structures are located on or within 200 feet of the proposed affected area:

1. Sante Fe Mine Road
2. _____
3. _____
4. _____
5. _____

(*Please list additional structures on a separate page*)

CERTIFICATION

The Applicant, Mountain Top Environmental LLC, a Colorado LLC, by Thomas Halm as Geologist and Partner, does hereby certify that Clear Creek County shall be compensated for any damage from the proposed mining/reclamation operation to the above listed structure(s) located on or within 200 feet of the proposed affected area described within Exhibit A, of the 110d Reclamation Permit for the Gem waste rock pile.

This form has been approved by the Colorado Mined Land Reclamation Board pursuant to its authority under the Colorado Land Reclamation Act for the Extraction of Construction Materials and the Colorado Mined Land Reclamation Act for Hard Rock, Metal, and Designated Mining Operations. Any alteration or modification to this form shall result in voiding this form.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEGED BY:

Applicant:

Representative Name: Signature:_____

Date: Title:

STATE OF_____)
) ss.
COUNTY OF_____)

The foregoing was acknowledged before me this____day of_____, 20___, by _____ as_____of_____.

_____ My Commission Expires:_____
Notary Public

NOTARY FOR STRUCTURE OWNER

ACKNOWLEGED BY:

Structure Owner:

Name: Clear Creek County Signature: _____

Date March 17, 2026 Title Chair

STATE OF Colorado)
) ss.
COUNTY OF Clear Creek)

The foregoing was acknowledged before me this 17 day of March, 2026, by Rebecca Lloyd as Chair of Board of County Commissioners

_____ My Commission Expires: _____

Notary Public

GEM Extraction Area

Alcan Mine
Gilson Gulch
Seaton Mtn
Freeman Mine
TRAIL
8966
9000
9183
4WD
205
209
Boomerang
BM 8723
Gilson Gulch
8600
8400
8607
Seaton Gl
Canyon
Delany Gulch
Buttermilk Gl
8579
Rosa Gl
8200
8412
7903
Colo School of Mines Experimental Mine
Idaho Springs
(BM 7524)
Virginia Canyon
Rosa Gulch
7800
7600
8000
R 73 W
R 72 W
31
3

200 0 200 400 FT

RECEIVED
NOV 20 2025
DIVISION OF RECLAMATION, MINING AND SAFETY

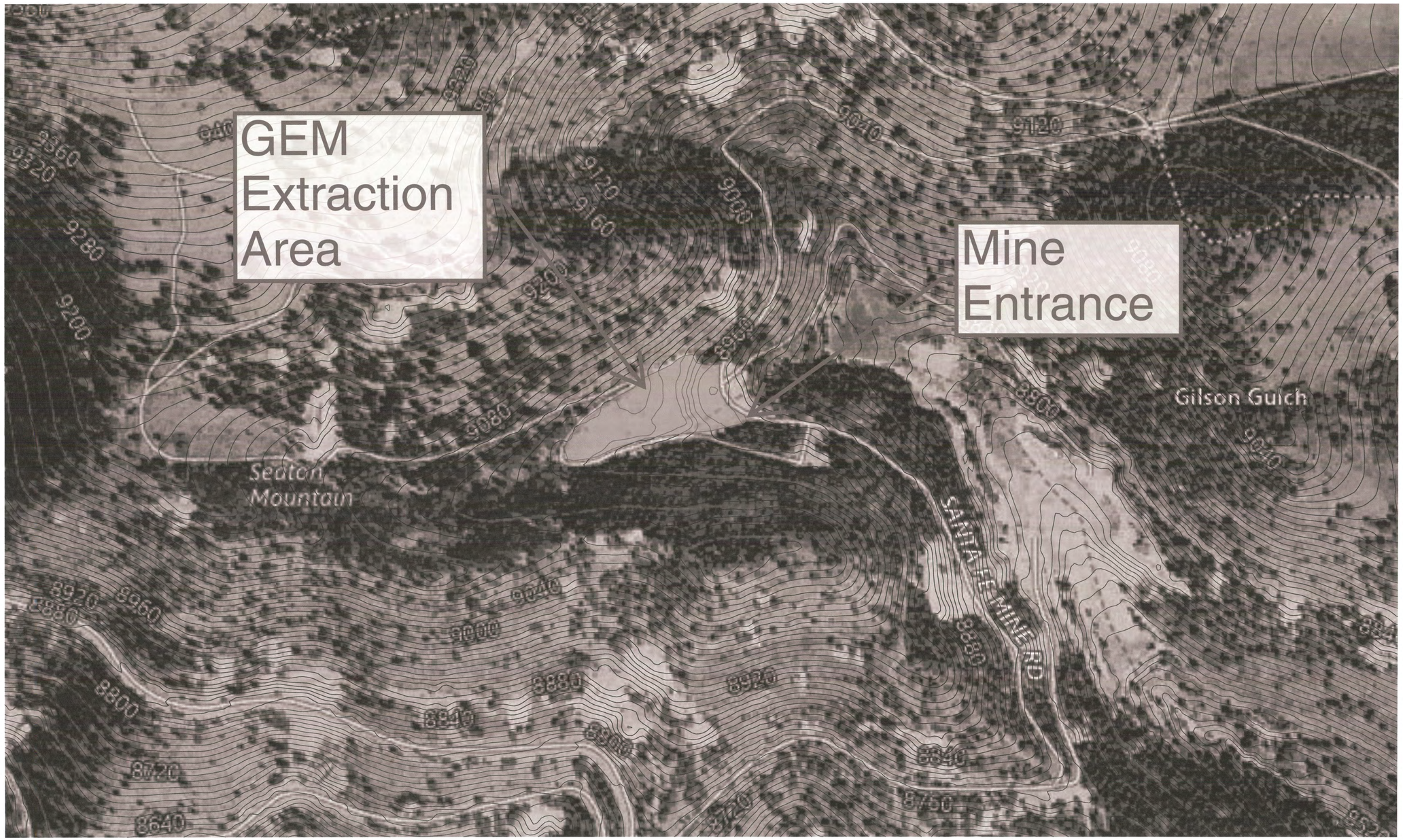
Designed By:
Zac Wurth

CO Division of Relamation, Mining and Safety
Limited Impact (110d) Permit
Mountain Top Environmental LLC
GEM Exhibit E Mining Map

Date:
11/04/2025

Scale
1:6,000

Sheet
1



100 0 100 200 FT

RECEIVED
NOV 20 2025
DIVISION OF RECLAMATION, MINING AND SAFETY

Designed By:
Zac Wurth

CO Division of Relamation, Mining and Safety
Limited Impact (110d) Permit
Mountain Top Environmental LLC
GEM Exhibit E Mining Map

Date:
11/04/2025

Scale
1:2,400

Sheet
1

CO Division of Relamation, Mining and Safety
Limited Impact (110d) Permit
Mountain Top Environmental LLC
GEM Exhibit E Mining Map

Designed By:
Zac Wurth

Date:
11/04/2025

Scale
1:500

Sheet
1

RECEIVED
NOV 20 2025
DIVISION OF RECLAMATION, MINING AND SAFTEY

GEM Extraction Area

Mine Entrance

20 0 20 40 FT

Designed By:
Zac Wurth

RECEIVED
NOV 20 2025
DIVISION OF RECLAMATION MINING AND SAFTEY

CO Division of Relamation, Mining and Safety
Limited Impact (110d) Permit
Mountain Top Environmental LLC
GEM Exhibit E Mining Map

Date:
11/04/2025

Scale
1:500

Sheet
1

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Erica Duvic, Grants Administrator
Subject: Consideration of a CDS/CPF Grant Application and Letter of Support for Courthouse Complex Generators

---

RECOMMENDATION

Approval of the application and letter of support for a Congressionally Designated Spending/Community Project Funding Grant for the Courthouse Complex Generators for up to $160,000.

BACKGROUND

Clear Creek County's courthouse/jail complex currently lacks sufficient backup generator capacity to sustain essential operations during extended power outages. This vulnerability was documented during the December 16–23, 2025 Public Safety Power Shutoff (PSPS) event, in which Xcel Energy enacted planned outages across most of the County due to extreme wildfire risk wind conditions. Though the courthouse complex retained power during that event, Xcel could not guarantee continuity, preventing the County from opening an in-county shelter and forcing the temporary relocation of jail inmates. The County's After Action Review identified generator upgrades as a high-priority corrective action.

Community Project Funding (CPF) and Congressionally Directed Spending (CDS) are federal, member-requested grants that provide targeted funding for local community projects such as infrastructure and public facilities. CPF is the term used in the House of Representatives; CDS is used in the Senate. The BOCC expressed interest in pursuing these funds and the generator project was identified as the most shovel-ready project available. Due to a short-notice CPF application deadline, staff submitted an application through Congressman Neguse's office prior to this item coming before the Board. The County will also apply jointly for CDS funding through Senators Bennett and Hickenlooper. This memo seeks Board authorization for that application and retroactive acknowledgment of the CPF submission. It also requests signature of a group letter of support for the application.

ANALYSIS

If awarded, the project would involve two components: rewiring the existing generator, which was originally installed to serve the emergency dispatch center that has since relocated outside the County and currently powers an empty space, and purchasing and installing a new generator. Together, these improvements would provide reliable backup power to the jail, Emergency Operations Center, in-county emergency shelter spaces, and the rooftop cell tower supporting first responder radio communications. Construction is estimated to last approximately one month with additional time required for procurement.

FISCAL IMPACT

CDS/CPF funds must be applied for through one of the Appropriation Committee's subcommittees and an account accepting requests. The County is applying through the Agriculture subcommittee's Rural Development, Community Facilities Grants, which requires a match. The total project cost is $160,000 and the expected county match is $40,000 (25%). The source of these matching funds has not been identified.

Board Agenda Background

The proposed project budget is based on estimates received from licensed electricians and includes a contingency for potential cost increases.

ATTACHMENT:

1. CDS CPF - Letter of Support

Clear Creek County, Colorado

Commissioners
George Marlin, District 1
Rebecca Lloyd, District 2
Jodie Hartman-Ball, District 3

County Manager
Colton Rohloff

County Attorney
Peter A. Lichtman

Physical Address:
405 Argentine Street
Georgetown, Colorado
80444

Mailing Address:
P.O. Box 2000
Georgetown, Colorado
80444

Phone
(303) 679-2300

Website:
www.clearcreekcounty.us

Facebook:
ClearCreekCountyCOgov
YouTube:
@clearcreekcountyco
Instagram:
@clearcreekcountyco

March 17, 2026

P.O. Box 2000
Georgetown, Colorado
80444

Dear Honorable Members of Congress:

The undersigned local governments and agencies of Clear Creek County, Colorado write in unified support of Clear Creek County's request for federal Community Project Funding and Congressionally Directed Spending to upgrade generator infrastructure at the courthouse/jail complex in Georgetown.

During the December 16–23, 2025 Public Safety Power Shutoff event, Xcel Energy enacted planned outages across most of Clear Creek County to prevent wildfires during an extreme wind event designated by the National Weather Service as a "Particularly Dangerous Situation." Approximately 5,500 residents lost power for up to seven days. Though the courthouse complex retained power during that event, Xcel could not guarantee continuity, leaving the County unable to reliably open an in-county emergency shelter or ensure uninterrupted jail operations.

This project will address those vulnerabilities directly. Rewiring an existing generator and adding a new unit will provide reliable backup power to the Emergency Operations Center, jail, emergency shelter facilities, and the communications infrastructure supporting first responder radio operations throughout the county.

Clear Creek County faces recurring high-wind and wildfire conditions that make extended power outages a predictable and ongoing threat. This investment will ensure that local government can fulfill its core public safety responsibilities to all residents when they need it most.

We respectfully urge your support for this request.

Sincerely,

Clear Creek County Board of County Commissioners

City of Idaho Springs

Town of Empire

Town of Georgetown

Town of Silver Plume

Clear Creek County Sheriff

Clear Creek Fire Authority

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: County Manager's Office
From: Colton Rohloff, County Manager
Subject: Consideration of Approval of Commissioners' Goals for 2026

RECOMMENDATION

Staff recommends approval of the 2026 Board of County Commissioners' goals as presented.

BACKGROUND

Each year, the Board of County Commissioners establishes a set of strategic goals intended to guide policy direction, organizational priorities, and collaborative efforts with partner agencies and community stakeholders. These goals provide a framework for staff work plans, budget priorities, and intergovernmental coordination throughout the year.

The proposed 2026 goals were developed through discussions among the Commissioners and County leadership and are intended to reflect both ongoing initiatives and emerging priorities facing Clear Creek County. The goals focus on areas such as childcare access, economic development, wildfire mitigation, housing, fiscal sustainability, and community engagement.

ANALYSIS

Adoption of annual Board goals provides a shared direction for the organization and helps ensure alignment between the Board's policy priorities and departmental work plans. These goals assist staff in prioritizing initiatives, coordinating with regional partners, and aligning future budget discussions with the strategic direction established by the Board.

Several of the proposed goals reflect ongoing work already underway within the County, including economic development coordination, regional housing initiatives, and wildfire mitigation efforts. Other goals emphasize strengthening internal organizational culture and expanding opportunities for community engagement.

CONCLUSION

Approval of the 2026 Board goals will provide clear policy direction for staff and partner organizations while ensuring that County efforts remain aligned with the priorities identified by the Board of County Commissioners. These goals will serve as a guiding framework for organizational initiatives, intergovernmental coordination, and community engagement throughout the coming year.

Following Board approval, staff will prepare a shorter, more public-facing version of the goals document for broader community communication and distribution.

ATTACHMENT:

1. Commissioners' Goals

Clear Creek County Commissioners' Goals

Expand Childcare Access
Support the expansion of childcare access throughout the County by partnering with local organizations and exploring options to increase funding for childcare scholarships.

Strengthen Organizational Resilience and Regional Coordination
Build organizational resiliency, succession-ready capacity, and advocacy with state and federal stakeholder agencies regarding operations and capital planning related to Interstate 70.

Diversify County Revenue and Mitigate External Impacts
Position the County, through legislative advocacy, the use of professional lobbyists, and other legislative strategies, to explore more diverse revenue options for counties and pursue direct mitigation of impacts on county services resulting from state and federal actions.

Advance Economic Development and Diversification
Continue building economic development capacity across the county and align goals to provide a clear path forward for increased economic diversification and long-term resiliency.

Support Regional Housing Solutions
Continue supporting the development and maturation of the Clear Creek Regional Housing Authority.

Enhance Wildfire Mitigation and Forest Health
Enhance wildfire mitigation capacity through collaboration with the CSU Extension Office and explore the development of a Forest Health Special District.

Foster a Collaborative and Innovative Organizational Culture
Continue cultivating a creative, collaborative, innovative, and safe work environment where healthy disagreement is encouraged and protected through board policies and training, with the goal of strengthening trust with staff and the public.

Increase Community Engagement and Transparency
Increase opportunities for direct community engagement by hosting more town halls and public forums throughout the County to share information, gather feedback, and strengthen relationships with residents.

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
Alexis Sohlden, Public Lands Manager
From: Lisa Leben, Special Projects and Water Resources Manager
Subject: Consideration of Approval of the Clear Creek County Sport Shooting Park Lease between the Board of County Commissioners of the County of Clear Creek, Colorado and the Clear Creek Metropolitan Recreation District

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RECOMMENDATION

Staff recommends approval of the Clear Creek County Sport Shooting Park Lease between the Board of County Commissioners of the County of Clear Creek, Colorado and the Clear Creek Metropolitan Recreation District (CCMRD).

BACKGROUND

In 2022, Clear Creek County published a Request for Qualifications (RFQ) to lease, manage, and operate the new Sport Shooting Park that was under construction. The CCMRD submitted the only response. Discussions were held and it was determined that it was too early to enter specific Lease negotiations. With construction moving forward over the past year, staff have been working with CCMRD on the lease, which is now ready for final consideration.

ANALYSIS

Established in 1979, the CCMRD is a park and recreation special district, and the organization has earned credibility as a successful operator and manager of recreational facilities throughout Clear Creek County. CCMRD has designated Jesse Peros to be the Manager of the shooting range. He's currently the CCMRD Director of Facility , he is a former police officer, and a lifelong hunter who has expertise with firearms and is familiar with shooting range operations. The lease terms were developed to facilitate a successful business plan for CCMRD to operate the new facility, which will provide a recreational benefit to the community.

CONCLUSION

The primary goal, behind this 6+ year effort, to build a shooting range in Clear Creek County is to provide a developed, designated public range that offers an alternative to dispersed shooting in the National Forest where it often occurs in unsafe or unsuitable locations. As stated in the 2019 U.S. Forest Service Recreational Sport Shooting Management Decision Notice, when the new Sport Shooting Park is open to the public, the Forest Service will close the areas north of I-70 in Clear Creek and Gilpin Counties that have been designated unsafe for recreational shooting.

Recreational shooting is a sport in which people of all ages can participate. This range will afford the increasing number of legal firearms owners the opportunity to practice in a location that is safe for everyone. In addition, the new facility will offer hunter sight-in days, education and safety training, fun competitions, archery, and shooting events.

Board Agenda Background

FISCAL IMPACT

The lease is designed to allow the CCMRD to operate profitably while establishing an accounting methodology by which net profit will be calculated with a portion of net profits to be paid to the County.

ATTACHMENT:

1. Shooting Range Lease

CLEAR CREEK COUNTY SPORT SHOOTING PARK LEASE
BETWEEN
THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF CLEAR CREEK, COLORADO
AND
THE CLEAR CREEK METROPOLITAN RECREATION DISTRICT

THIS LEASE AGREEMENT ("Lease") is by and between the Board of County Commissioners of the County of Clear Creek, Colorado , with an address of 405 Argentine Street, P.O. Box 2000, Georgetown CO 80444 ("Lessor") and the Clear Creek Metropolitan Recreation District, with an address of 98 12th Avenue, P.O. Box 1149, Idaho Springs, CO 80452 ("Lessee"). Lessor and Lessee may be collectively referred to as the Parties, and each individually as a "Party."

1. Definitions and Basic Provisions. The following definitions and basic provisions are applicable to this Lease:

a. "Premises": The real property subject to this Lease is located at 3204 Stanley Road, Dumont, CO, consisting of approximately 5.7 acres, as depicted on **EXHIBIT A**.

b. "Term": Subject to subsection 1.c., below, the initial Lease term ("Initial Term") will commence April 1, 2026, and terminate December 31, 2026, but the Lease may be renewed for up to four, successive five-year Terms thereafter (each a "Term" and collectively, the "Terms") if exercised as follows: If a Term remains to be exercised, Lessor will give Lessee written notice that the expiration of the Term is impending asking Lessee to confirm its intent to renew the Lease. The notice will be given no later than September 30 immediately preceding the expiration date of the then current Term. If Lessee gives written notice not later than November 15 immediately before the expiration date of its intent to renew (subject to lawful appropriation), the Lease will automatically renew for another five-year Term. If Lessee does not give notice within that time, the Lease will terminate at the end of the Term. If Lessor does not give the notice provided herein, the Lease will automatically renew, unless either Party submits written notice of termination at least 90 days prior to the expiration of the then current Term.

c. "Condition Precedent": The Initial Term shall be conditioned upon the following requirement having been satisfied: construction currently ongoing on the Premises shall be completed by the Lessor to both Parties' satisfaction on or before July 1, 2026. This is a Condition Precedent. In the event that the Condition Precedent is not satisfied on or before July 1, 2026, either Lessor or Lessee shall have the right to terminate the Lease upon delivery of written notice to the other no later than July 31, 2026, in which case the Lease shall be null and void and of no further force and effect. Neither party shall have any liability whatsoever to the other in relation to or arising from Lessor's inability or failure to cause the Condition Precedent to be satisfied.

d. "Basic Rent": The Base Rent for the Initial Term shall be $3,750.00 and shall be payable on or before December 31, 2026. Beginning on January 1, 2027, the Base Rent will be $6,000 a year, payable annually in one lump sum by January 31 of each calendar year for that year, increased at the beginning of each Term in accordance with the rate of inflation (Denver-Aurora-Lakewood, Colorado, CPI-U). If a fire ban requires the range to be closed (i.e., Stage 2 fire ban) occurs more than a total of 14 days during a calendar year, a prorated amount may be deducted from the next annual rent payment based on the number of days the range was closed.

e. "Additional Rent": Additional Rent means any and all other amounts, other than Basic Rent, due and payable under the terms of this Lease. Additional Rent shall include 20% of net profits of the previous calendar year, as determined by the formula outlined in Exhibit B, payable annually on January 31 of each year except 2027.

f. "Rent": All payments, reimbursements and other amounts due Lessor under provisions of this Lease, including Basic Rent and Additional Rent.

g. "Permitted Use": The use of the Premises will be for the Clear Creek County Sport Shooting Park," a public sport shooting park ("Shooting Park" or Facility"), which may include recreational activities compatible with shooting. Lessee will not, without the prior written consent of Lessor, make or allow to be made any alteration, addition or improvement to the Premises the nature of which would require a County building or land use permit.

2. Operational Requirements. The Lessee shall be required to operate under the following conditions:

a. The Facility shall be open to the public a minimum of eight (8) hours a day, five (5) days a week, to include weekends, with the exceptions of when a County fire ban is in place that prevents shooting at the range.

b. Firing weapons shall be limited to the hours of 8:30 am to 5:00 pm from November 1 through April 30, and 8:30 am to 6:00 pm from May 1 through October 30, except for Law Enforcement POST training and special events, which will require prior approval from Lessor and advanced notification to the community of dates and times.

c. User fees, including hourly and daily membership fees, law enforcement use and training, and hunter safety classroom rental fees, must receive prior written approval from Lessor prior to implementation or future changes.

d. The following ammunition shall not be fired on the Premises at any time by anyone: .50 caliber or larger high velocity; tracer; explosive; incendiary; full-automatic.

3. Maintenance, Repairs and Alteration. Lessee shall be responsible for providing regular custodial service and minor repairs for the Premises. Lessor shall be immediately notified of any problems with the heating and mechanical systems, lighting, water and/or wastewater systems to allow Lessor to repair these systems as quickly as possible to avoid further damage to the Premises. In the event Lessee fails to notify Lessor within 24 hours, then Lessor will have the right to expend

all sums necessary for delayed repairs and Lessee will reimburse Lessor upon demand for all such sums, including attorneys' fees and costs if required. Lessor will be responsible for HVAC, water, wastewater, mechanical, and lighting system repairs.

Lessee will, at Lessee's expense, keep the Premises orderly and in good condition and free of debris, as when this Lease began, excepting ordinary wear and tear and damage by casualty, including without limitation the interior surfaces of the ceiling, walls and floors, doors and partitions, and wall, floor and window coverings. Lessee will neither commit nor allow any waste or damage to the Premises inconsistent with the Permitted Use. Lessee shall repair or replace at Lessee's sole cost, to the extent not covered by insurance or required to be covered by insurance pursuant to this Lease, any damage done to the Premises caused by any act, omission or negligence of Lessee.

Lessee shall not make or allow any alterations, installations, cabling, additions or improvements in or to the Premises without first obtaining the written consent of Lessor. Lessee understands and agrees that Lessor's consent will be conditioned upon, among other things, Lessor's approval of plans, specifications and contractors, and Lessor's receipt of adequate security (such as a payment and performance bond) satisfactory to Lessor to assure completion of the work and payment of all costs of the work.

4. Utilities. All assessments for charges to provide internet and waste disposal to the Premises during the continuance of this Lease shall be paid by the Lessee as the same become due and payable.

5. Security. Lessee shall provide security for the site and shall maintain the fence around the Facility and keep the gates locked when the range is not in use.

6. Signage. Lessee will not, without the prior written consent of Lessor, attach any sign directly or indirectly to the exterior of the building or construct any signs and/or outdoor advertising larger than 10 square feet.

7. Sublease/Assignment. This Lease and the rights of Lessee hereunder shall not be assigned, other than updating primary contacts annually.

8. Insurance. Lessee shall secure and maintain during the life of the Lease such insurance, from an insurance company authorized to write casualty insurance in the State of Colorado, as will protect Lessee, its subcontractors, and the Lessor from claims for bodily injury, death, or property damage which may arise, and shall have filed the Certificate of Insurance or the certified copy of the insurance policy with the Lessor. Each insurance policy shall contain a clause or separate statement providing that it will not be cancelled by the insurance company without 10 days' written notice to the Lessor of intention to cancel. The amounts of such insurance shall not be less than the following.

a. Workers' Compensation and Employer's Liability Insurance shall be secured and maintained as required by the State of Colorado for full coverage of all persons employed at the Facility. Employer's liability coverage per accident shall be $1,000,000.00.

b. General Liability and Vehicular Liability: Bodily injury and property damage:

i. Injury to or sickness or disease or death of one person $500,000.00;

ii. Injury to or sickness or disease or death of two or more persons in a single occurrence $1,000,000.00;

iii. Property damage to property of one person $500,000.00; and

iv. Property damage to property of two or more persons in a single occurrence $1,000,000.00.

Prior to commencement of the Initial Term, Lessee shall certify that the aforementioned insurance is in effect and that Lessee has provided copies of applicable insurance certificates to the Lessor for this Lease.

9. Use of Premises; Compliance with Laws and Insurance Requirements. Lessee will not, without Lessor's prior written consent, use the Premises for any purpose other than the Permitted Use. Lessee will control Lessee's agents, employees, licensees and invitees in such manner as will not create any nuisance or interfere with Lessor or owners of neighboring properties, it being agreed that the noise associated with operating a shooting range are not "nuisances"; and will comply with all laws, ordinances, orders, rules and regulations now or hereafter adopted by any governmental authority having jurisdiction over the Premises. At all times during the Terms of the Lease, Lessee will maintain insurance with respect to its use and possession of the Premises.

10. Entry by Lessor. Lessor and Lessor's designees will have the right with reasonable advance notice, which may be verbal, to enter the Premises at all reasonable hours for the purpose of inspecting the Premises, making such repairs, alterations or improvement as Lessor may deem appropriate, or for any other lawful purpose, provided that no such entry will unreasonably interfere with Lessee's Permitted Use on the Premises.

11. Liability and Indemnity. Lessor will not be liable to Lessee or to Lessee's agents, employees, licensees or invitees, or to any person claiming by, through or under Lessor, for any injury to person, loss of or damage to property, resulting from any cause whatsoever other than Lessor's gross negligence or willful misconduct. To the extent permitted by law, Lessee agrees to indemnify Lessor against all such claims except those arising from Lessor's gross negligence or willful misconduct.

12. Lessee's Event of Default. The following will constitute "Events of Default" by Lessee under this Lease:

a. Failure by Lessee to correct or cure, within 30 days after Lessor's prior written request for such correction or cure, any deficiency in Lessee's performance of Lessee's obligations under this Lease; provided that such correction or cure can be made within 30 days or within such time as reasonably necessary so long as Lessee is diligently pursuing such correction or cure; or

b. The filing by or against Lessee of any petition under any chapter or provision of the federal Bankruptcy Code or any similar present or future state or federal law.

13. Lessor's Remedies. Upon the occurrence of any Event of Default mentioned in paragraph 12 above, Lessor will have the right to exercise any one or more of the following remedies:

a. Lessor may terminate this Lease, effective at such time as may be specified by written notice to Lessee, and demand (and if such demand is refused, recover) possession of the Premises from Lessee, in which event Lessee will indemnify Lessor against any loss, damage or expense that Lessor may suffer by reason of such Event of Default or such termination.

b. Lessor may not, without terminating this Lease, demand (and if such demand is refused, recover) possession of the Premises from Lessee.

c. Lessor may, without accelerating the remaining Rent due under this Lease, bring separate actions from time to time to collect any one or more delinquent installments or payments of Rent due under this Lease.

Any Rent due Lessor under this Lease will bear interest at the rate of 12% per year from the date due until paid, and Lessee will pay all reasonable costs and expenses, including reasonable attorneys' fees, incurred by Lessor in collecting any such sum or in enforcing any other right or remedy available to Lessor under this Lease.

14. Lessee's Remedies. Lessor's obligations under this Lease may, subject to the rules of law governing availability of such remedies generally, and any breach thereof may be redressed in an independent action for specific performance. Notwithstanding anything in this Lease to the contrary, in no event will Lessee attempt, or assert the right, to withhold any payment due Lessor under this Lease, or plead any setoff or counterclaim in any action by Lessor to enforce any provision of this Lease, on account of any alleged breach of this Lease by Lessor.

15. Environmental. Lessee, and not Lessor, is responsible for lead clean-up following the expiration of the Lease. Notwithstanding that, at the end of the Initial Term and every five (5) years of the Term thereafter, Lessee will perform pH tests of the soils in berms around the shooting

bays, and in areas beyond the bays, all in locations of expected shot fall. If pH tests in any area show a pH below a range of 6.5 – 8.5, Lessee shall spread limestone or other alkaline product for the purpose of bringing the pH of the soils within the 6.5 – 8.5 range. Lessee shall provide a written report of the pH test to County within 45 days after each testing along with a description of the corrective action taken. Lessee, at its expense, will be responsible for remediation and/or abatement of any environmental contamination that it directly causes at the Premises of a nature not commonly occurring at outdoor ranges. Environmental contamination will be defined as those materials and/or substances identified by local, state or federal governmental authorities or agencies as being "hazardous" (excluding the deposit of lead and associated substances).

16. Lessee's Authority. Lessee represents and warrants it has the full right, power and authority to enter into this Lease and has obtained all necessary consents from its directors and officers, if any, required under its governing documents in order to consummate this transaction, and the person executing this Lease has been duly authorized to do so.

17. Surrender of Premises; Holding Over. Upon the expiration or earlier termination of this Lease, or on or before the date specified in any demand for possession by Lessor pursuant to paragraph 13 above, Lessee will surrender possession of the Premises to Lessor and any remaining or existing improvements and any other installed or constructed improvement on the Premises will be deemed abandoned by Lessee. Possession of the Premises by Lessee after such expiration, termination or date specified in a demand for possession will be deemed a holdover of this Lease without Lessor's consent, and Lessee will be deemed to be a Lessee from month to month, at a monthly rate equal to 150% of the monthly installment of Base Rent for the final month of the Term, and subject to all of the other provisions and conditions of this Lease.

18. Notices. Any notice required or permitted to be given under this Lease will be in writing and will be deemed to have been sufficiently given for all purposes if sent by certified or registered mail, postage and fees prepaid, addressed to the Party to whom such notice is intended to be given at the address set forth below or otherwise provided by either Party in writing. Such notice shall be deemed to have been given when deposited in the U.S. Mail.

Lessor:
Clear Creek County
Attn: County Attorney and County Manager
405 Argentine Street, P.O. Box 2000
Georgetown, CO 80444

Lessee:
Clear Creek Metropolitan Recreational District
98 12th Avenue, P.O. Box 1149
Idaho Springs, CO 80452

19. Entire Agreement; No Waiver. This Lease and the exhibit hereto constitute the final and complete expression of the Parties' agreements with respect to the Premises and Lessee's occupancy of the Premises. By signing this Lease, both Parties acknowledge and agree that the Parties do not consent to any terms embedded within hyperlinks referenced within any document. Any terms, conditions, or agreements not explicitly outlined within the plain language of this Lease shall not be considered binding or enforceable. The plain language contained within this Lease constitutes the complete and exclusive agreement between the Parties and supersedes all prior agreements, negotiations, representations, and understandings, whether verbal or written. Each Party agrees that it has not relied upon or regarded as binding any prior agreements, negotiations, representations or understandings, whether verbal or written, except as expressly set forth herein. No provision of this Lease may be amended or waived except by written instrument signed by the Party to be charged with such amendment or waiver; without limiting the general applicability of the first clause of this sentence, Lessor's acceptance of Rent with knowledge that Lessee has defaulted under this Lease will not constitute a waiver of such default. Failure by Lessor to enforce any provision of this Lease will not constitute a waiver of such provision, and no waiver by Lessor of any provision of this Lease on one occasion will constitute a waiver of any other provision or of the same provision on another occasion.

20. Severability; Captions. If any clause or provision of this Lease shall be held invalid or unenforceable, the remainder of this Lease shall not be affected thereby, and there shall be deemed substituted for the affected clause or provision a valid and enforceable clause or provision as similar as possible to the affected clause or provision. The paragraph and subparagraph captions used in this Lease are included for convenience only, and will be deemed irrelevant to the construction of any provision of this Lease.

21. Binding Effect. The provisions of this Lease will bind and benefit Lessor and Lessee and their respective heirs, legal representatives, successors, and assigns.

22. Non-Appropriation/TABOR. The Parties understand and acknowledge that both Parties are subject to Article X, § 20 of the Colorado Constitution ("TABOR"). The Parties do not intend to violate the terms and requirements of TABOR by the execution of this Lease. It is understood and agreed that this Lease does not create a multi-fiscal year direct or indirect debt or obligation within the meaning of TABOR and, therefore, notwithstanding anything in this Lease to the contrary, any payment obligation of the Lessor or Lessee is expressly dependent and conditioned upon the continuing availability of funds beyond the term of the current fiscal period ending upon the next succeeding December 31. Financial obligations payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available in accordance with the rules, regulations, and resolutions of the Lessor or Lessee, as applicable, and other applicable law. Notwithstanding any other provision of this Lease concerning termination, upon the Lessor or Lessee's failure to appropriate such funds, this Lease shall automatically terminate.

23. Governing Law; Venue. This Lease will be governed by and construed in accordance with the laws of the State of Colorado. Venue of any action to enforce this Lease shall be in the Clear Creek County Colorado District Court.

24. **Compliance with Laws.** The Parties shall strictly comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

26. **Attorneys' Fees.** For any dispute arising from or related to this Lease, the prevailing Party shall be entitled to an award of reasonable attorneys' fees and costs whether or not legal proceedings are instituted.

27. Governmental Immunity. It is the intention of the Parties that this Lease shall not be construed as a contractual waiver, express or implied, of any immunities or defenses provided by the Colorado Governmental Immunity Act, Section 24-10-101 and following, Colorado Revised Statutes, or any other applicable law.

28. Counterparts. This Lease may be executed via electronic signature and counterparts, each of which when signed by all the Parties shall be deemed an original, but all of which when taken together shall constitute one agreement.

29. Amendment. This Lease may be amended only by an instrument in writing signed by the Parties. Any provision incorporated by reference which purports to negate this provision either with or without notice shall not be valid or enforceable in any action at law, whether by way of complaint, defense, or otherwise. Any provision rendered null and void by the operation of this provision shall not invalidate the remainder of the Lease, to the extent capable of execution.

30. Lease Agreement Documents. Each of the following documents is incorporated herein by reference whether or not attached hereto. If there is any conflict between this Lease and the Lease Agreement Documents, this Lease shall control. The "Lease Agreement Documents" shall consist of:

a) Exhibit A – Map of Leased Property

b) Exhibit B – Formula to determine Basic Rent

[SIGNATURES ON FOLLOWING PAGE]

Lessor:

Clear Creek County Board of County Commissioners

By: _____

Name: Rebecca Lloyd

Title: Chair, Board of County Commissioners

Date: _____

Lessee:

Clear Creek Metropolitan Recreation District

Name: Meghan Vickers

Title: President, Creek Metropolitan Recreation District Board

Date: _____

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; EXHIBITS TO FOLLOW]

EXHIBIT A

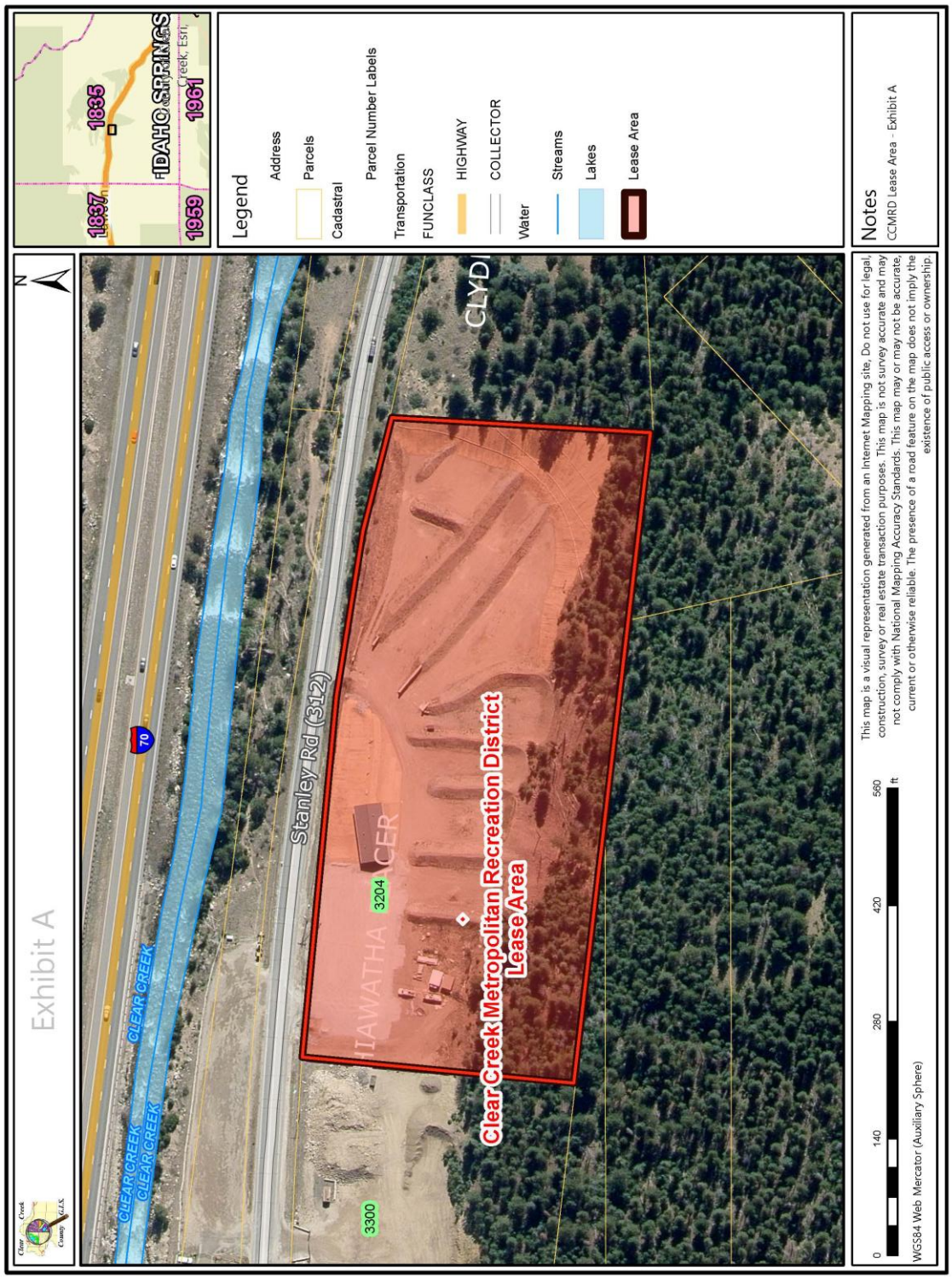

Exhibit A
N
Clear Creek County, U.S.
CLEAR CREEK
CLEAR CREEK
CLEAR CREEK
70
Stanley Rd (312)
3300
3204
CER
IAWATHA
CLYD
Clear Creek Metropolitan Recreation District
Lease Area
1837
1835
IDAHO SPRINGS
1959
1961
Creek, Esri
Legend
Address
Parcels
Cadastral
Parcel Number Labels
Transportation
FUNCLASS
HIGHWAY
COLLECTOR
Water
Streams
Lakes
Lease Area
Notes
CCMRD Lease Area - Exhibit A
0
140
280
420
560
ft
WGS84 Web Mercator (Auxiliary Sphere)
This map is a visual representation generated from an Internet Mapping site. Do not use for legal, construction, survey or real estate transaction purposes. This map is not survey accurate and may not comply with National Mapping Accuracy Standards. This map may or may not be accurate, current or otherwise reliable. The presence of a road feature on the map does not imply the existence of public access or ownership.

EXHIBIT B

Net Profit Calculation and Additional Rent Formula

This Exhibit establishes the accounting methodology by which "Net Profit" will be calculated for purposes of determining Additional Rent under Section 1(d) of the Lease.

1. Definitions

For the purposes of this Exhibit:

1.1 "Gross Revenue"

Gross Revenue means all earned income generated from operation of the Shooting Park, recognized on an accrual basis, including:

a. Daily use fees
b. Hourly lane or bay rental fees
c. Annual membership fees
d. Law Enforcement / POST training usage fees
e. Classroom rental and training program fees
f. Ammunition or target sales (if applicable)
g. Sponsor revenue directly tied to park operations
h. Concessions revenue, vendor fees, or event-related revenue
i. Any grant revenue restricted to operational activity
j. Any other revenue attributable to the Premises, unless expressly excluded

Exclusions:

- Grants restricted specifically for capital improvements
- Donations not tied to operations
- Insurance proceeds for casualty losses
- County payments or reimbursements unrelated to park operations

1.2 "Allowable Operating Expenses"

Allowable Operating Expenses include all ordinary, necessary, reasonable, and directly attributable operational costs of the Shooting Park, recognized on an accrual basis. Allowable Operating Expenses must fall within one of the categories below.

2. Allowable Operating Expense Categories

2.1 Personnel Costs

Includes only staff whose labor is directly assigned to the Shooting Park:

a. Wages and salaries
b. Employer payroll taxes

c. Employer PERA or retirement contributions
d. Employer-paid health, dental, and disability insurance
e. Overtime directly attributable to range operations
f. Contracted range safety officers, instructors, or event staff
g. Seasonal or temporary labor

Exclusions:

- District-wide administrative salaries
- Executive leadership not dedicated to range operations
- Volunteer time valued as an expense

2.2 Operations & Consumables

a. Targets, stands, backers, and consumable materials
b. Training ammunition used for instruction
c. PPE, safety glasses, hearing protection
d. Range cleaning supplies
e. Office supplies directly tied to the range
f. First aid/trauma kits for operational use

2.3 Repairs & Maintenance

a. Routine facility repairs
b. Berm, target system, and range surface maintenance
c. Drainage or minor grading
d. Fence, gate, and lock repairs

2.4 Utilities

Utilities directly attributable to the Premises, including:

a. Internet
b. Waste disposal or dumpster service

2.5 Insurance

Premiums for insurance coverages required under the Lease:

a. Public liability
b. Property damage
c. Any riders specifically required for the Shooting Park

2.6 Environmental Compliance Costs

a. pH soil testing (per Section 14)
b. Lime/alkalizing materials applied to maintain pH ranges
c. Required disposal of hazardous materials, excluding lead remediation at end-of-lease
d. Fees for environmental compliance reporting

2.7 Professional Services

a. Accounting or bookkeeping directly tied to range operations
b. Legal services tied to day-to-day operations
c. Software or IT services used exclusively for range scheduling or check-in systems

Exclusions:

- District-wide software licenses
- Legal costs from disputes unrelated to routine operations

2.8 Permits & Regulatory Fees

a. Local, state, or federal fees required to operate the Shooting Park
b. Fire inspections
c. Training certifications

2.9 Other Direct Costs

Expenses not included above are allowable only if:

a. Directly attributable to range operations,
b. Ordinary and necessary,
c. Not reimbursed by third parties, and
d. Do not exceed $2,500 per item without itemization and written justification.

3. Non-Allowable Expenses

The following are explicitly excluded from Allowable Operating Expenses:

a. Depreciation or amortization
b. District-wide overhead or administrative allocations
c. Capital improvements exceeding $5,000
d. Fundraising costs
e. Advocacy or lobbying expenses
f. Debt service or loan repayments
g. Travel expenses outside Clear Creek County unless tied to range training
h. Marketing expenses not exclusive to the Shooting Park
i. Insurance deductibles over $2,500 per claim

4. Net Profit Formula

Net Profit for each calendar year will be calculated as:

Net Profit = Gross Revenue − Allowable Operating Expenses

5. Additional Rent Calculation

Additional Rent = 20% × Net Profit

If Net Profit is zero or negative, no Additional Rent is owed for that year.

6. Annual Financial Reporting Requirements

The Lessee must submit to Lessor by January 31 each year:

a. Income Statement for the Shooting Park
   - Showing Gross Revenue and Allowable Operating Expenses
   - Presented on an accrual basis
b. Balance Sheet (range-only allocation permissible)
c. General ledger or transaction listing for all revenue and expenses
d. Itemized list of expenses over $2,500
e. Narrative explanation of:
   - Significant revenue changes
   - Significant expense variances
   - Operational changes affecting financial performance
f. Certification signed by the Finance Officer or Director stating:
   "This financial report is complete, accurate, and represents the true financial activity of the Public Sport Shooting Park for the preceding calendar year."

Right to Audit

The County may audit the supporting documentation with 10 business days' notice. If the audit identifies an underpayment:

- Lessee must correct the underpayment within 30 days, and
- Will pay interest at 1% per month on the underpaid Additional Rent.

7. Treatment of Special Situations

7.1 Prepaid Memberships

Must be recognized as revenue pro rata over the membership term.

7.2 Multi-Use Staff

Salaries must be allocated based on actual hours worked, supported by timesheets.

7.3 Shared Equipment

If equipment is used by multiple Rec District programs, only the proportionate share attributable to Shooting Park operations is allowable.

7.4 Closures or Restricted Hours

Fire bans, weather closures, or emergency shutdowns do not alter the Net Profit formula unless agreed in writing.

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
Alexis Sohlden, Public Lands Manager
From: Lisa Leben, Special Projects and Water Resources Manager
Subject: Consideration of Approval of the Water Leasing and Basin-Wide Augmentation Plan Participation Agreement Between the Clear Creek County Board of Commissioners and Excell Lawson Village, LLC

RECOMMENDATION

Staff recommends approval of the Water Leasing and Basin-Wide Augmentation Plan Participation Agreement with Excell Lawson Village, LLC for the Lawson Village Mobile Home Park (Park) located at 2038 and 2039 County Road 308, Dumont, Parcel Numbers 1837-261-04-001 and 1837-261-03-001.

BACKGROUND

On March 18, 2025, the Board of County Commissioners (BOCC) held a public hearing and approved a Water Leasing and Basin-Wide Augmentation Plan Participation Agreement for the subject property with Lawson WMP IV, LLC, for a term of 1-year. The BOCC felt that the 1-year term would give staff time to work with the applicant on additional considerations for a long-term agreement. Lawson WMP IV, LLC then sold the Park and the Lease was assigned to the new owner, Excell Lawson Village, LLC.

To address the BOCC's concern about residential housing affordability, this agreement states that the average annual rent increases charged to Park residents shall not materially exceed the annual rate of change published in the Consumer Price Index for All Urban Consumers: Rent of Primary Residence for Denver-Aurora-Lakewood (Rent CPI). If the County determines that the rent increase exceeds the Rent CPI, the BOCC may, at its discretion, impose corrective conditions. This new agreement includes a 10-year term, to renew automatically for an additional term of 10-years, unless earlier terminated.

ANALYSIS

Lessee requires 0.326 acre-feet of augmentation water for the 29-unit residential mobile home park located on the property, as physically supplied by two wells. The parties agreed that entering a new agreement with a 10-year term was preferable to amending the previous agreement with the former owner.

CONCLUSION

This agreement will provide the legal water supply for the property. While the primary purpose of developing the County's Water Bank was to provide water for economic development, one of the other policy goals for this valuable resource is affordable housing. This agreement is an example of utilizing the County's Water Bank as a tool in the pursuit of that goal.

FISCAL IMPACT

The costs due at execution of this agreement are $3,728, which covers water year 2026-27 (3/31/26-4/1/27).

ATTACHMENT:

1. Water Leasing and Basin-wide Augmentation Plan Participation Agreement

<u>REAL PROPERTY NOTICE</u>: ***This Agreement provides a water supply to the real property located at 2038 County Road 308 and 2039 County Road 308, Dumont Colorado 80436, which are assigned Clear Creek County Assessor Parcel Nos. 1837-261-04-001 (2038 C.R. 308) and 1837-261-03-001 (2039 C.R. 308). This Agreement will be recorded with the Clear Creek County Clerk and Recorder and should be associated with the aforementioned property for purposes of all future title searches.***

WATER LEASING AND BASIN-WIDE AUGMENTATION PLAN PARTICIPATION AGREEMENT

Between the
CLEAR CREEK COUNTY BOARD OF COMMISSIONERS
and EXCELL LAWSON VILLAGE, LLC

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Water Leasing and Basin-Wide Augmentation Plan Participation Agreement

THIS AGREEMENT, effective _____, 2026 ("Effective Date"), by and between THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF CLEAR CREEK ("**Clear Creek**"), a county of the State of Colorado, and EXCELL LAWSON VILLAGE, LLC, a Colorado limited liability company ("**Lessee**"). Clear Creek and Lessee are referred to individually as a Party and collectively as the Parties.

WITNESSETH

WHEREAS, Clear Creek purchased a portion of the fully consumable, non-tributary water developed in connection with operations at the Henderson Mine in Clear Creek and Grand Counties, Colorado, to be released upstream of the confluence of Lion Creek and the West Fork of Clear Creek, for a term expiring June 1, 2031 and renewable through June 1, 2071 in accordance with a Water Sales Agreement between Climax Molybdenum Company and Clear Creek dated June 1, 1991 ("**Water Sales Agreement**"); and

WHEREAS, Clear Creek owns fully consumable water rights delivered through the Vidler Tunnel, to be released to Leavenworth Creek; and

WHEREAS, Clear Creek owns 100 acre-feet of water storage and water rights decreed for augmentation purposes in Green Lake (Clear Creek's Rights in the Henderson Mine, the Vidler Tunnel, and Green Lake are collectively referred to herein as "**Water Rights**"); and

WHEREAS, in addition, Clear Creek has a contractual right to use 50 acre-feet of storage capacity in Guanella Reservoir, which capacity Clear Creek may use to store and release augmentation water; and

WHEREAS, Clear Creek may store water within or outside the County boundaries; and

WHEREAS, Lessee is the owner of property located at 2038 County Road 308 and 2039 County Road 308, Dumont, Colorado 80436, in Clear Creek County ("**Property**"); and

WHEREAS, Lessee requires augmentation water for a residential mobile home park located on the Property, as supplied by two wells located on the Property, one of which was decreed as the Trenberth Well No. 5 in Case No. W-4665 and is permitted under Permit No. 21882-F-R, issued by the Division of Water Resources ("DWR") on March 13, 2023, and one of which is decreed as the Trenberth Well No. 2 in Case No. W-4665 with Lessee currently working to permit or register it as required by the DWR (jointly, the "Wells"); and

WHEREAS, the Parties desire to enter into an agreement for the use and storage of the following described water by Lessee in connection with indoor residential and domestic use in up to approximately twenty-nine (29) mobile homes located on the Property, in order to allow Lessee to replace Lessee's out-of-priority depletions at the Property; and

WHEREAS, before entering into this Agreement and at no cost to Lessee, in order to utilize its Water Rights to replace out-of-priority depletions to the stream, Clear Creek adjudicated a basin-wide augmentation plan in District Court, Water Division No. 1, State of Colorado, in Case No. 05CW302, which was decreed on June 20, 2014 ("**Basin-Wide Augmentation Plan**" or "**Augmentation Plan**"); and

WHEREAS, a copy of said Basin-Wide Augmentation Plan has been provided to the Lessee and is incorporated by reference herein; and

WHEREAS, Lessee had the choice to develop and adjudicate its own augmentation plan or to participate in the Basin-Wide Augmentation Plan, and Lessee chose to participate in the Basin-Wide Augmentation Plan and submitted the **Application for Inclusion in the County of Clear Creek Augmentation Plan**, attached hereto as **Exhibit 1** and incorporated by reference; and

WHEREAS, it is intended that the Basin-Wide Augmentation Plan will be used to replace the out-of-priority depletions of the Lessee, as provided herein; and

WHEREAS, Clear Creek's obligation to replace out-of-priority depletions hereunder shall not exceed an annual amount of 0.326 acre-feet of water leased under this Agreement, which includes annual augmentation of 0.319 acre-feet of depletions and annual augmentation of transit losses of 0.007 acre-feet, as set forth in this Agreement; and

WHEREAS, Clear Creek may amend or supplement its Basin-Wide Augmentation Plan by supplemental decree of the Water Court ("**Supplemental Decree**") or approved

Substitute Water Supply Plan ("**SWSP**") in order to better or more efficiently serve the needs of the County or any of its Basin-Wide Augmentation Plan participants ("**Plan Participants**"); and

WHEREAS, the County approved a Water Leasing and Basin-Wide Augmentation Plan Participation Agreement for this Property with Lawson WMP IV, LLC, the prior owner of the Property, on March 18, 2025, for a one (1) calendar year term; and

WHEREAS, on March 17, 2025, the Property was sold to Lessee, and to assign the one-year Water Leasing and Basin-Wide Augmentation Plan Participation Agreement to Lessee, a Lease Assignment and Assumption Agreement was entered and recorded on April 28, 2025; and

WHEREAS, the Parties agree that entering a new Water Leasing and Basin-Wide Augmentation Plan Participation Agreement with a ten (10) year term is preferable to amending the previous agreement with the former owner; and

WHEREAS, the Parties desire to enter into this Agreement for the Lessee to participate in Clear Creek's Basin-Wide Augmentation Plan, subject to the terms of said Plan.

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements contained herein, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, Clear Creek and Lessee agree as follows:

1. Amount and Provision of Water.

a. Lease.

The "Water Year" for purposes hereof is April 1 of each year through the following March 31. All rights and obligations of Clear Creek and Lessee are contingent on inclusion of Lessee's water uses in the Basin-Wide Augmentation Plan and subject to Section 8 hereof. Clear Creek hereby leases to Lessee up to **0.326 acre-feet** of water available under the Water Rights per Water Year subject to the terms and conditions set forth in this Agreement ("**Water**"). The 0.326-acre-foot annual amount includes **0.319 acre-feet** of consumptive use to replace Lessee's depletions as well as **0.007 acre-feet** of transit losses. Lessee's actual monthly water consumptive use during the Water Year may vary, but Lessee's actual consumptive use to be augmented pursuant to this Agreement shall not exceed 0.319 acre-feet per Water Year.

Beginning on the Effective Date of this Agreement and for every month during the term of this Agreement, Clear Creek will make Water available for delivery pursuant to the terms of this Agreement, the terms of the Basin-Wide Augmentation Plan, and the direction of the water commissioner for Water Division 1, District 7 ("**Water Commissioner**").

b. Annual Projected Monthly Water Augmentation Notice.

No later than March 1 each year, Lessee shall provide Clear Creek written notice of its projected monthly consumptive water use to be augmented by Clear Creek under this Agreement for the forthcoming Water Year ("**Projected Monthly Water Augmentation Notice**"), in substantially the form attached hereto as **Exhibit 2**, although for no greater than 0.319 acre-feet of consumptive use per Water Year to replace depletions.

The Projected Monthly Water Augmentation Notice may be modified mid-Water Year if approved by Clear Creek following Lessee's written request submitted at least thirty (30) days in advance of the requested modification, and so long as the annual maximum amount is not exceeded. Said notice shall be delivered to Lisa Leben, Special Projects Manager, P.O. Box 2000, Georgetown, Colorado 80444, or such other person designated by Clear Creek. Deliveries of Water leased under this Agreement will be in accordance with the most recent Projected Monthly Water Augmentation Notice unless modified in writing by the Parties. If no notice is received by March 1, Clear Creek shall assume that the previous Water Year's Projected Monthly Water Augmentation Notice is still valid and shall deliver Water accordingly.

In the event Lessee does not require delivery of its full amount of Water in any given Water Year for any reason, including but not limited to river conditions when augmentation water is not required, Clear Creek shall be free to lease any excess Water to third parties. However, except for that amount of Water for which the Water Reservation Rate has been timely paid in accordance with Section 2.a. of this Agreement, non-use by Lessee during any Water Year shall in no way forfeit, terminate, or impair Lessee's right to the full amount of the Water in the next Water Year.

c. Provision of Augmentation Water.

i. Clear Creek agrees to provide the Water for use as augmentation water as necessary to replace out-of-priority depletions consistent with this Agreement and pursuant to the terms of the Basin-Wide

Augmentation Plan and any administrative requirements of the Offices of the State and Division Engineers or Water Commissioner.

ii. Water shall be provided from Clear Creek's current Basin-Wide Augmentation Plan water or any other source approved pursuant to Clear Creek's Basin-Wide Augmentation Plan. Clear Creek shall exercise its exchanges, decreed or otherwise, in priority as necessary to deliver water to Lessee.

iii. Clear Creek shall include Lessee's reported and projected use in its annual projections and all accounting required under the Basin-Wide Augmentation Plan.

2. Price; Payment Terms.

a. Price for Water.

The price for the Water leased by Lessee pursuant to this Agreement is a Delivered Base Rate of $3,000.00 per acre foot of water per Water Year ("**Delivered Base Rate**").

During the term of this Agreement, whenever Clear Creek adopts a new water rate schedule, the Delivered Base Rate automatically will change to Clear Creek's then-current water rate; provided that, in no event shall the Delivered Base Rate automatically change to Clear Creek's then-current water rate if such automatic adjustment would result in a new Delivered Base Rate that is less than the CPI-U adjusted Delivered Base Rate from the prior year, as described below. In addition, if Clear Creek adopts any new fees during the term of this Agreement, including but not limited to a storage reservation fee, during the term of this Agreement, Lessee shall also pay such new fees in addition to the Delivered Base Rate.

Beginning in the 2026 – 2027 Water Year, for each year in which the Lessee leases water under this Agreement, the Delivered Base Rate will be adjusted annually for inflation in accordance with the Denver-Aurora-Lakewood metropolitan area Consumer Price index for All Items, All Urban Consumers (CPI-U) published by the United States Department of Commerce (or, if that is unavailable, the most nearly applicable index selected at the discretion of Clear Creek). The adjustment will be made in the manner illustrated in **Exhibit 3** hereto, except in the years when the Delivered Base Rate automatically changes as described in the preceding paragraph.

The base rate for water made available to Lessee under this Agreement but not delivered because Lessee does not request delivery in its Projected Monthly Water Augmentation Notice will be one-half the Delivered Base Rate – that is, $1,500 per acre-foot today, based on the current Delivered Base Rate ("**Water Reservation Rate**"). The Water Reservation Rate will increase commensurate with future increases in the Delivered Base Rate.

b. <u>Basin-Wide Augmentation Plan Costs</u>.

Lessee is not required to pay the one-time Augmentation Participation Fee of $10,000 because the prior owner of the Property paid it.

The price for Lessee's participation in the Basin-Wide Augmentation Plan pursuant to this Agreement shall consist of the following:

i. *Costs due at execution of this Agreement*: At the time of execution of this Agreement, Lessee shall pay to Clear Creek $3,728 which is comprised of:

(1) A one-time New Customer Application Fee of $2,000; and

(2) The Annual Augmentation Plan Administrative Fee of $750 to pay for administrative costs, which fee may be adjusted in the future by Clear Creek to reflect increased administrative costs ("**Administrative Fee**"); and

(3) The annual cost of the 0.326 acre-feet of Water for the upcoming Water Year (2026 – 2027), which is $978 (based on 0.326 x $3,000.

ii. *Costs due at the beginning of each subsequent Water Year*:

(1) At the beginning of each Water Year during the term of this Agreement, starting with the 2027 – 2028 Water Year, Lessee will pay to Clear Creek the cost of the full amount of Water stated in its Projected Monthly Water Augmentation Notice and any applicable Water Reservation Rate.

(2) At the beginning of each Water Year during the term of this Agreement, Lessee will pay the then-current Administrative

Fee to Clear Creek. The current Administrative Fee is $750, and each Water Year, the Administrative Fee automatically will change to Clear Creek's then-current Administrative Fee as described above. However, if there has been no change to the Administrative Fee during the prior Water Year, the Administrative Fee will be adjusted annually for inflation in accordance with the Denver-Aurora-Lakewood metropolitan area Consumer Price Index for All Items, All Urban Consumers (CPI-U) published by the United States Department of Commerce (or, if that is unavailable, the most nearly applicable index selected at the discretion of Clear Creek).

c. Payment Date.

Lessee must pay for both the Water and the Administrative Fee before the start of each new Water Year. Payment is due on or before March 1 of each year. Late payments will be assessed a $100 fee, plus an interest rate charge of one- and one-half percent (1.5%) per month. Solely as an accommodation, but not as a condition of payment, Clear Creek will issue a written invoice for each Water Year.

3. Responsibilities of Lessee.

a. Lessee wishes to have Clear Creek release Augmentation Water for Lessee to replace out-of-priority depletions consistent with this Agreement and the terms of the Basin-Wide Augmentation Plan, for which it agrees to assume the responsibilities enumerated in this Section 3, and throughout this Agreement.

b. Lessee agrees to notify Clear Creek of any material changes to water diversion, conveyance, or treatment facilities that may impact Clear Creek's augmentation obligations under this Agreement and/or the Basin-Wide Augmentation Plan.

c. Lessee hereby agrees to be bound by the terms and conditions of the Basin-Wide Augmentation Plan.

d. At Lessee's cost, Lessee shall install and maintain measurement devices and measure and record water diversions as may be required by the Division Engineer or Water Commissioner and as necessary to meet the reporting requirements of the Basin-Wide Augmentation Plan, including, specifically, a data-logging, totalizing flow meter on each Well. Lessee shall also comply with all permitting and/or registration requirements of the DWR. As

mentioned above in the Recitals, the Trenberth Well No. 2 in Case No. W-4665 requires a well permit or registration from the DWR to be lawfully used; if Lessee does not obtain such permit or registration, Clear Creek reserves the right to remove that well from the Augmentation Plan and this Agreement and to require an amendment of this Agreement to reflect those changes and the reduction in the amount of Water leased hereunder.

e. Lessee is not required to report to Clear Creek its actual use each month unless its actual use varies from the Projected Monthly Water Augmentation Notice for that Water Year, in which case Lessee shall report its actual monthly use in a form approved by Clear Creek by email; provided that, within fourteen (14) days of a request by Clear Creek to Lessee for a report of Lessee's actual water usage (*i.e.*, the volume of such usage) during a prior month, Lessee shall report to Clear Creek its actual monthly usage in a form approved by Clear Creek by email. A **Sample Monthly Accounting Form** for Lessee is attached hereto as **Exhibit 4.**

f. Lessee shall cooperate with Clear Creek in preparing its Annual Report to the Division Engineer, as required under the Basin-Wide Augmentation Plan, and will make all diversion and use records and other relevant information or documentation available to Clear Creek upon request.

g. Clear Creek may at any time conduct an audit of water uses on the Property, and Lessee shall cooperate with such audit in good faith, including, but not limited to, providing any records or other information relevant to such water use as requested by Clear Creek.

h. No later than January 31 of each calendar year during the term of this Agreement, Lessee shall submit to the Clear Creek County Manager a written report documenting all rent increases implemented during the prior calendar year for each residential unit on the Property. The report shall include, at minimum: i. the prior rent amount, ii. the new rent amount, iii. the effective date of the increase, and iv. the percentage change. The County may request additional documentation reasonably necessary to verify compliance with Section 8(d), below. Failure to provide timely or accurate reporting shall be treated as a default under Section 11 of this Agreement.

4. **Delivery**.

a. **Commencement of Delivery and Delivery Rates**.

Clear Creek shall deliver and administer releases of Water for the account of Lessee at times and rates specified in the Projected Monthly Water Augmentation Notice, or any written modification thereof, except that no releases shall be required in free river conditions. Delivery of Water shall be the physical moment a release or delivery of water from one of the Places of Delivery, described below, is made into the Clear Creek stream system.

b. <u>Places of Delivery</u>.

The Water shall be delivered to or for the account of Lessee from one or more of the following Places of Delivery, at Clear Creek's sole election:

i. Climax's permitted point or points of discharge from the Henderson Mine into the West Fork of Clear Creek and/or any tributaries thereto; provided, however, that the point of delivery shall be upstream of the confluence of Lion Creek and the West Fork of Clear Creek; or

ii. The City of Golden's permitted point of discharge from the Vidler Tunnel Collection System to the point at which the east portal of the Vidler Tunnel discharges into Leavenworth Creek in Clear Creek County; or

iii. The City of Golden's permitted point or points of discharge from Golden Reservoirs Nos. 1, 2, and 3 (also known as Guanella Reservoir) into the West Fork of Clear Creek and/or any tributaries thereto; or

iv. Clear Creek's permitted point of discharge from Green Lake into the South Fork of Clear Creek and/or any tributaries thereto; or

v. Such other discharge points on the Clear Creek drainage within Clear Creek County as Clear Creek and Lessee agree upon in writing.

c. <u>Risk and Assessments of Loss including Transit Loss</u>.

Lessee shall be solely responsible for all conveyance, transport, and use of the Water downstream of the Place of Delivery and all transit losses resulting from moving water to or from storage, and all losses in providing augmentation water to the stream system. Based on the distance from Lessee's point of diversion to Clear Creek's

augmentation sources, 0.007 acre-feet of transit losses is assessed and included in the 0.326-acre-foot total amount of Water leased under this Agreement. Lessee shall also bear all risk of loss, including, but not limited to, carrying charges imposed by the Office of the State Engineer or its representatives and non-use.

5. Beneficial Use.

This Agreement is entered into for the sole purpose of making Water available to Lessee for augmentation of out-of-priority depletions at the Property, as more particularly described on **Exhibit 1,** in Clear Creek County, Colorado.

Lessee shall divert water for the purposes hereunder by means of the Wells, more specifically described in **Exhibit 1** attached hereto and incorporated by reference herein.

Lessee shall utilize the Water to replace depletions from the operations and uses set forth in **Exhibit 1** attached hereto and incorporated by reference herein.

Water delivered hereunder is for replacement of out-of-priority depletions only for those uses as specified on **Exhibit 1**. Clear Creek's agreement to provide Water is expressly limited to use of the Water for augmentation use, which use has been evaluated based on the operations, uses, amounts, and timeframes described in **Exhibit 1**. Clear Creek is not responsible for and is under no obligation to provide Water for any current or future water uses on the Property which are not expressly described in or are otherwise inconsistent with the terms of **Exhibit 1**.

Clear Creek shall have no duty or other obligation to provide Water at such times as it is not required to replace out-of-priority depletions under the terms of this Agreement.

Clear Creek intends to consumptively use 100% of the Water to be delivered hereunder, and any non-use or non-consumption by Lessee shall not be deemed to be evidence of an intent by Clear Creek to abandon the right of 100% consumptive use.

6. Sources of Water.

The Water is from fully consumable developed non-tributary water, transmountain water sources, and tributary water decreed for augmentation purposes, and users thereof are entitled to consume 100% of all water delivered minus any losses as set forth in Section 4 above.

7. Assumption of Risk.

a. Risk of Use.

Clear Creek shall not be responsible for Lessee's use of the Water and the effects thereof on third parties, including, but not limited to, the effects of diversions, discharges, and changes in the quantity and the quality of the water.

b. Hold Harmless.

Lessee agrees to hold Clear Creek harmless from and against all loss, cost, liability and expense (including reasonable attorneys' fees and expenses) arising wholly or in part out of Lessee's use of the Water, the effects thereof on third parties, or both.

c. Assumption of Risk: No Warranties of Merchantability or Fitness.

Lessee agrees it is acquiring the Water "as is," and that there are no warranties, express or implied, of any kind including, but not limited to, potential limitations on use imposed by State and Federal law. Clear Creek and Lessee expressly disclaim any warranty of merchantability or fitness of the Water for any particular purpose. In addition, Lessee agrees it is participating in the Basin-Wide Augmentation Plan as it is decreed, and that there are no warranties, express or implied, of any kind including, but not limited to, potential limitations imposed by State or Federal law, or administration by the Division of Water Resources or other state or local agency.

d. Assumption of Risk: Changes in Quality.

Lessee understands that changes in the quality of the Water shall not be deemed to constitute a breach of this Agreement.

e. Assumption of Risk: Changes in Quantity.

Based upon historic availability of the water from the Henderson Mine, the Vidler Tunnel, Guanella Reservoir, and Green Lake, it is anticipated that sufficient water will be available every year to Clear Creek, of which the amounts specified in Section 1, above, will be available to Lessee. Lessee understands that the quantity of water produced by the Henderson Mine and the Water Rights has changed from time to time in the past, the quantity thereof might vary during the term hereof, and the amount of Water provided for in Section 1 above may not always be physically available for delivery to Lessee. Lessee agrees that in the event of such physical shortage due to a force majeure, Clear Creek shall not be responsible for providing an alternative supply of Water to Lessee and

the failure to deliver the full amount of Water provided for herein for this specific reason shall not be deemed to be a breach of this Agreement. In the event that sufficient water is not available to Clear Creek, the Water made available to Lessee and other parties who enter into water leases with Clear Creek after January 1, 2006, will be adjusted proportionately. As soon as reasonably determinable, Clear Creek shall notify Lessee of the amount of Water it expects to have available during such period, if such amount is expected to be less than the amounts specified in Section 1. In the event of a reduction in delivery pursuant to this subsection "e," Clear Creek shall pay Lessee a refund of any prepaid amounts for Water that Clear Creek is unable to deliver.

f. **Water Rights.**

i. Lessee's rights under this Agreement are subject to the Water Sales Agreement, and the Water Agreement between City of Golden, Colorado, and Clear Creek dated February 1, 2001, as amended by the First Amendment thereto dated March 11, 2004, and the Second Amendment thereto dated January 4, 2005, and the Water Sales Agreement between Climax Molybdenum Company and Clear Creek dated June 1, 1991 ("**Water Agreements**"). The Water Rights hereunder and the delivery of water are subject to regulations and administration by the Office of the State Engineer and Lessee hereby recognizes that such administration could change to the detriment of Lessee. Clear Creek shall not be liable for any such changes in said administration.

ii. The delivery of water contemplated by this Agreement is subject to regulation and permitting requirements under both State and Federal law. Lessee agrees that it will not protest or otherwise object to the issuance of any permit or other governmental authorization necessary to authorize the discharge or other delivery of water from the Henderson Mine, Vidler Tunnel or the Water Rights or to exchange any of such water into Golden Reservoir Nos. 1, 2 and 3 or other reservoirs (Guanella Reservoir) or to rehabilitate and store water in Green Lake. Lessee shall not be responsible for any costs or expenses associated with issuance of any permits or governmental authorizations necessary to authorize such delivery.

iii. Lessee will not take any action to increase the stringency of water quality, or other standards applicable to Clear Creek or its tributaries which are in force as of the date first above written, and agrees that

it will not propose or support any law, rule or regulation that would materially impair the ability to discharge water and wastewater from the Henderson Mine and Vidler Tunnel pursuant to the Water Sales Agreement or Water Agreement.

8. Term and Termination.

a. Term. This Agreement shall take effect on the Effective Date identified above and shall remain in effect for ten (10) calendar years from the Effective Date, and, if Lessee is in full compliance with this Agreement during the initial term, this Agreement shall thereafter renew automatically for an additional term of ten (10) calendar years, unless earlier terminated as provided for in this Agreement.

b. Prior Agreements. This Agreement sets forth the entire agreement and understandings of the Parties hereto with respect to the subject matter herein, and this Agreement supersedes and nullifies any and all other agreements made between the Parties hereto with respect to the subject matter herein.

c. Termination. Either Party may terminate this Agreement upon twelve (12) months' written notice to the other Party hereto. At the time of the notice of termination, all use of the Wells on the Property must cease, unless otherwise authorized by Clear Creek and the Water Commissioner. Water made available to Lessee by the County for the final twelve (12) months after written notice to terminate shall be deemed first applied to be replacement of all lagged depletions associated with the use of the Water at the Property. During the final twelve (12) months, Lessee shall pay the Administrative Fee and for all Water delivered under this Agreement, including applicable transit losses, at the Delivered Base Rate, as calculated above, except that no Water Reservation Fee will be charged during that time.

d. CPI Rent Escalation Review and Termination Right. The Parties acknowledge that this Agreement supports residential housing affordability. Accordingly, Lessee agrees that average annual rent increases charged to residents of the Property shall not materially exceed the annual rate of change published in the Consumer Price Index for All Urban Consumers: Rent of Primary Residence for the Denver-Aurora-Lakewood, CO (CBSA) (Series CUUSA433SEHA), or its successor index ("Rent CPI"). If the County determines that the annual average rent increase for the Property exceeds the Rent CPI for the same calendar year, the Board of County Commissioners may, at its discretion, impose corrective conditions, suspend participation in the augmentation program, or terminate this Agreement upon twelve (12) months' written notice.

9. County Water Projects.

If, during the term of this Agreement, Clear Creek submits water applications or develops water for delivery or storage of water systems, Lessee agrees that it will not oppose any water rights or permit applications, or propose or support any law, rule or regulation that would materially impair development of those projects or system.

10. Assessments.

Apart from Lessee's Administrative Fee set forth in Section 2 above, Clear Creek shall be responsible for payment of all other administrative costs of its Basin-Wide Augmentation Plan. Clear Creek shall also be solely responsible for payment of all assessments by the City of Golden and Henderson Mine.

11. Default.

a. If Lessee fails to comply with any requirement of this Agreement or the Basin-Wide Augmentation Plan, Clear Creek shall provide Lessee with written notice of said failure, giving Lessee at least thirty (30) days to cure the defect. If Lessee fails to cure the defect within the given timeframe, Clear Creek may, at its option, terminate this Agreement and take necessary actions to remove Lessee from the Basin-Wide Augmentation Plan.

b. In the event that either Party fails to perform one or more of its obligations hereunder, and said Party remains in default for thirty (30) days after receipt of written notice from the other Party complaining thereof, then the non-defaulting Party may, at its sole election, in addition to any other remedies it may have, declare the Agreement to be terminated.

12. Force Majeure.

Subject to the terms and conditions in this Section, no Party to this Agreement shall be liable for any delay or failure to perform under this Agreement due solely to conditions or events of force majeure, as that term is specifically defined herein. As used herein, force majeure means any delay or failure of a Party to perform its obligations under this Agreement caused by events beyond the Parties' reasonable control, and without the fault or negligence of the Party, including, without limitation: (a) changes in State or Federal law or administrative practice concerning water rights administration, water quality, or stream flow requirements; (b) acts of God; (c) sudden actions of the elements such as floods, earthquakes, storms, or tornadoes; (d) sabotage; (e) vandalism beyond that which can be reasonably prevented by the Party; (f) terrorism; (g) war; (h) riots; (i)

fire; (j) explosion; (k) blockades; (l) insurrection; (m) strike, slow down or label disruptions (even if such difficulties could be resolved by conceding to the demands of a labor group); and (n) actions by Federal, State, municipal, or any other government or agency (including but not limited to the adoption or change in any rule or regulation or environmental constraint imposed by Federal, State or local governing bodies or courts) but only if such requirements, actions, or failures to act, prevent, or delay performance. In the event any delay or failure of performance on the part of the Party claiming force majeure continues for an uninterrupted period of more than one-hundred and twenty (120) days from its occurrence or inception is noticed pursuant to this Section, the Party not claiming force majeure may, at any time, following the end of such 120-day period, terminate this agreement upon written notice to the Party claiming force majeure, without further obligation except as to costs and balances incurred prior to the effective date of such termination.

13. <u>Notices</u>.

All notices and other required communications under this Agreement shall be addressed as follows:

Clear Creek: Board of County Commissioners of County of Clear Creek
c/o Lisa Leben, Water Resources Manager
P.O. Box 2000
Georgetown, CO 80444
303-679-2434
lleben@clearcreekcounty.us

With a copy to:
Clear Creek County Attorney
P.O. Box 2000
Georgetown, CO 80444
303-679-2326
plichtman@clearcreekcounty.us

Lessee: Excell Lawson Village, LLC
c/o Virgil W. Shouse, III
1512 Larimer Street
Apt. 13
Denver, CO 80202
720-260-8435
virgil@excellfund.com

All notices shall be given by (i) email or (ii) U.S. Postal Service Certified Mail. All notices shall be effective, and shall be deemed delivered, respectively, on the day of delivery as indicated on (i) the sender's email system or (ii) the U.S. Postal Service Certified Mail tracking card.

Either Party may change its address by written notice to the other Party.

14. Exhibits.

The contents of Exhibits 1, 2, 3, 4, and 5 are incorporated into this Agreement by reference as if they were fully set forth herein.

15. Titles and Subtitles.

Titles of Sections and Subsections are placed herein for convenience of reference only, and shall not have the effect of modifying, amending, or changing the express terms and provision of this Agreement.

16. Nonseverability.

If any provision of this Agreement is determined to be invalid, illegal or unenforceable, the remaining provisions of this Agreement shall remain in full force and effect if the essential terms and conditions of this Agreement for each Party remain valid, binding and enforceable.

17. Modification.

This Agreement shall not be modified, amended, supplemented, extended, or altered except as the Parties may from time to time agree by written instrument signed by their authorized officers or representatives.

18. Assignment, Lease or Sale.

This Water has been made available to Lessee for the uses described in **Exhibit 1**. It is the intent of the Parties that this Water shall be used solely for the identified uses on the Property. Lessee may assign this Agreement for the use of the Water for the purpose described in **Exhibit 1**, without obtaining the prior written approval of Clear Creek, provided that (a) the assignment is in the form of the assignment and assumption template attached hereto as **Exhibit 5**, (b) Lessee records the executed assignment in the

official records of the Clerk and Recorder of Clear Creek County promptly after the Lessee's conveyance of the property benefitted by this Agreement to the assignee, and (c) Lessee provides a copy of the fully executed and recorded assignment to Clear Creek within thirty (30) days of the conveyance of the property benefitted by this Agreement. However, any assignment of this Agreement or any rights of Lessee thereunder for use of Water for purposes other than those specified in **Exhibit 1** is prohibited and shall be deemed void unless consented to in advance, in writing, by Clear Creek, which consent may be granted or refused at Clear Creek's sole discretion. Even if an assignment is made with such consent, Lessee shall remain bound by the terms of this Agreement, and shall remain responsible for all obligations to Clear Creek hereunder, unless it is expressly released, in writing, by Clear Creek.

All sales, leases and subleases by Lessee of Water delivered under this Agreement are prohibited.

Any violation of this Section by Lessee will be deemed a material breach of this Agreement which shall terminate this Agreement without notice or an opportunity to cure.

19. Binding Effect on Successors and Assigns; 3rd Parties.

Subject to the provisions of the previous Section, the terms and provisions of this Agreement shall apply to and be binding upon the successors and assigns of the Parties.

This Agreement is not intended by any of the Parties hereto and shall not be interpreted to benefit any third party.

20. Gender and Number.

As used herein, unless the context clearly indicates the contrary, the singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

21. Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be taken to be an original upon execution and delivery to the other Party. Such counterparts shall together constitute one and the same Agreement.

22. Waiver.

No waiver of any provision of this Agreement shall be valid unless in writing and signed by the Party against whom charged. No waiver of any provision of this Agreement shall constitute a waiver of any other provision of this Agreement or of the same provision on another occasion. Only the Board of County Commissioners is authorized to waive a provision on behalf of Clear Creek.

23. Amendment to Basin-Wide Augmentation Plan.

Clear Creek may amend its Basin-Wide Augmentation Plan by or though amendments, supplemental decrees, or Substitute Water Supply Plans, in its sole discretion. In said event, Lessee shall be given an opportunity to terminate this Agreement, at its sole discretion, if the terms of any such subsequent modifications are unsatisfactory to Lessee, and shall have no other remedy of any nature.

24. Merger.

This Agreement constitutes the final agreement between the Parties. It is the complete and exclusive expression of the Parties' agreement on the matters contained in this Agreement. All prior and contemporaneous negotiations and agreements between the Parties on the matters contained in this Agreement are expressly merged into and superseded by this Agreement. The provisions of this Agreement may not be explained, supplemented, or qualified through evidence of trade usage or a prior course of dealings. In entering into this Agreement neither Party has relied upon any statement, representation, warranty, or agreement of the other Party except for those expressly contained in this Agreement. There are no conditions precedent to the effectiveness of this Agreement other than those expressly stated in this Agreement.

25. Governing Law.

This Agreement and its application shall be governed by the laws of the State of Colorado.

IN WITNESS WHEREOF, the Parties hereto have entered into this Agreement as of the date and year first written above.

[Signature page(s) follow]

THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF CLEAR CREEK

By:_____
Rebecca Lloyd, Chair

Board of County Commissioners

Attest:

Date:_____

_____
Deputy Clerk & Recorder

Lessee: EXCELL LAWSON VILLAGE, LLC

By:_____
Name: _____
Title: _____

STATE OF COLORADO)
) ss.
County of _____)

Subscribed under oath before me on this _____ day of _____, 20_____, by _____ as _____ of _____.

My commission expires: _____.

_____
Notary Public

EXHIBIT 1

INTERNAL USE: Applicant Name: **Excell Lawson Village, LLC**

Application for Inclusion in the County of Clear Creek Augmentation Plan

Case No. 05CW302, Water Division No. 1

Structure Type (Circle One): [Wells (2)] Pond/Reservoir Surface Diversion

Applicant Name: Excell Lawson Village, LLC, c/o Virgil Shouse

Mailing Address: 1512 Larimer Street, Apt. 13

City, State and Zip: Denver, Colorado 80202

Phone: (303) 320-0003

Email Address: virgil@excellfund.com

Business Name: Lawson Village Mobile Home Park

Structure Addresses: 2038 Cnty Rd. 308 and 2039 Cnty Rd. 308 (Clear Creek County Assessor Parcel Nos. 1837-261-04-001 and 1837-261-03-001). A metes and bounds legal description of the subject parcels is attached.

Subdivision Name: See attached legal description.

Wastewater Treatment System: Check One: Public [**X**] Private: ☐
Central Wastewater Treatment System (i.e. Not Septic?) _____
Location of Treatment System: Onsite ☐ Offsite: ☐
Name of System: Central Clear Creek Sanitation District

Type of System: Septic Tank with Leach Field: ☐ Vault: ☐ Other: ☐ Describe: _____
Name of Stream to which wastewater returns: _____

Is Application for an Existing Well? Yes
If yes, Permit No(s).: 21882-F-R, which was decreed as the Trenberth Well No. 5 in Case No. W-4655, and an unregistered and unpermitted well (currently in the process of being permitted) decreed as Trenberth Well No. 2 in Case No. W-4655 (WDID 0705722) – Pursuant to the Water Leasing and Plan Participation Agreement with the County, the Applicant must work with the Division of Water Resources to permit or register the Trenberth Well No. 2 as necessary.

If Reservoir, Elevation: N/A

Court Case No.: Case No. W-4665

Approximate Date of Well Construction if not permit or decree: 1976 for Trenberth Well No. 5

Previous Augmentation Source? (Court Case No. if Available):
_____

Structure ID Number of Well (if applicable): Permit 21882-F-R (WDID 0705724) and WDID 0705772

DIVERSION LOCATIONS:

1. **Permit 21882-F-R (Trenberth Well No. 5. WDID 0705724):**
   PLSS: NE ¼ of the NE ¼ of Section 26 Township 3 South, Range 74 West, 6th P.M. Dist. From Sec. Line: 1,150 ft N and 100 ft E
   NAD 83 UTM Location: Zone 13N Easting: 445959 m Northing: 4401749 m
   Distance from Stream: 60 feet (NOTE: Zone 1: 0'-750' - Zone 2: 750'-1500' - Zone 3: Greater than 1500')

2. **Trenberth Well No. 2 (WDID 0705722):**
   PLSS: NE ¼ of the NE ¼ of Section 26 Township 3 South, Range 74 West, 6th P.M. Dist. From Sec. Line: 745 ft N and 716 ft E
   NAD 83 UTM Location: Zone 13N Easting: 445722 m Northing: 4401878 m
   Distance from Stream: 560 feet (NOTE: Zone 1: 0'-750' - Zone 2: 750'-1500' - Zone 3: Greater than 1500')

Location of Depletions (SUBBASINS): See MAP of Subbasins provided.

Headwaters of Clear Creek (Subbasin A) □

Headwaters of South Fork of Clear Creek (Subbasin B)

Headwaters of West Fork of Clear Creek (Subbasin C) □

Headwaters of Mill Creek (Subbasin D) □

Headwaters of Fall River (Subbasin E) □

Confluence of Clear Creek and S. Fork of Clear Creek to confluence of Clear Creek and Beaver Brook (Subbasin F) [**X**]

Annual Augmentation Requirements Table:

Use	Quantity	Units	Depletion Factor (AF)	Annual Depletion (AF)	Diversion Factor	Annual Diversion (AF)
In-House - WWTP		Each	0.0157	0.000	20	0.000
In-House - OWTS		Each	0.0314	0.000	10	0.000
Accessory Unit - WWTP		Each	0.01345	0.000	20	0.000
Accessory Unit-OWTS		Each	0.0269	0.000	10	0.000
Apartment. Hotel Motel or Cabin - WWTP		Per Room	0.009	0.000	20	0.000
Apartment, Hotel, Motel, or Cabin - OWTS		Per Room	0.0179	0.000	10	0.000
Commercial -Warehouse -WWTP		Per 1,000 sf	0.0045	0.000	20	0.000
Commercial - Warehouse - OWTS		Per 1,000 sf	0.009	0.000	10	0.000
Commercial - Office - WWTP		Per 1,000 sf	0.009	0.000	20	0.000
Commercial - Office - OWTS		Per 1,000 sf	0.018	0.000	10	0.000
Restaurant - WWTP		Per Customer	0.0005	0.000	20	0.000
Restaurant - OWTS		Per Customer	0.001	0.000	10	0.000
Fast Food Restaurant - WWTP		Per Customer	0.00045	0.000	20	0.000
Fast Food Restaurant - OWTS		Per Customer	0.0009	0.000	10	0.000
Recreational Vehicles		Per Vehicle	0.045	0.000	1	0.000
Recreational Vehicles - Bath House -WWTP		Per 10 Vehicles	0.0017	0.000	20	0.000
Recreational Vehicles - Bath House - OWTS		Per 10 Vehicles	0.0034	0.000	10	0.000
Domestic Large Animal & Livestock Watering		Per Animal	0.012	0.000	1	0.000
Irrigation - Elev. 6 500-8 250'		Acres	1.70	0.000	Varies	0.000
Irrigation - Elev. 8,250'+		Acres	1.73	0.000	Varies	0.000
Evaporation - On-channel reservoirs, gravel pits		Acres, Surface Area	1.82	0.000	1	0.000
Evaporation - Off-channel reservoirs		Acres, Surface Area	2.92	0.000	1	0.000
Dust Control		Metered	1.00	0.000	1	0.000
Snowmaking		Metered	1.00*	0.000	4.167	0.000
Other Purpose	1	Metered	1.00	**0.319**	20	**6.383**
**OWTS = On-Site Wastewater Treatment Systems*			**Total:**	**0.319**		**6.383**

*** Snowmaking Diversions are 100% consumptive at the time of diversion; credit for return flows shall be as set forth in the decree in case No. 05CW302.**

- Depletion Factors shown in this table do not apply to fully depletive reaches containing intervening water rights at such time as the intervening water right has placed a call on the river. A fully depletive reach is one in which a Participating Diversion is located upstream and the return flow from such diversion returns to the stream below an intervening water right, including an instream flow water right when said intervening water right has placed a call on the river.

Payment for Transit Losses and Total Annual Amount of Augmentation Water Requested: In addition to paying for its annual augmentation requirements indicated in the table above, the Applicant must pay the County to replace all transit losses associated with the augmentation of the Applicant's water use. The amount of transit losses is **0.007 acre-feet per year**. As a result, the Applicant requests a **total annual amount of 0.326 acre-feet** of augmentation water from the County.

Provide a detailed description of proposed water uses for each property:

Domestic water demand from 29 mobile homes. Four years of meter readings from both wells plus 10%

equal 0.319 AF of depletions per year. Water use is assumed to be distributed evenly across each month of the year (0.0266 AF/month of depletions). On central wastewater treatment system, so depletions are 5% of total pumping. No outdoor water use.

Applicant's Signature: Virgil Shouse mgr **Date:** 02/26/26

EXHIBIT 1

County of Clear Creek Augmentation Plan User Application

INTERNAL: Applicant Name: Excell Lawson Village, LLC

COUNTY INTERNAL USE ONLY BELOW THIS LINE:

Reviewed By: County: Lisa Leben Engineer Consulted: DiNatale Water

Conditional Approval*: X Denied: □ Date:_____

Reason: Outside Augmentation Area: □ No Appropriate Augmentation Source: □

No Appropriate Exchange: □ Inappropriate Use: □

Post-pumping depletion augmentation requirements: 1 year

600-foot well spacing review conducted? N/A

Total augmentation water adjudicated (AF): 183

Amount committed to previous participating diversions (without transit losses)(AF): 52.544

Amount committed to previous participating diversions and the one proposed herein (without transit losses)(AF): 52.863

Balance of uncommitted replacement water, after including the proposed diversion (AF): 130.137

Subbasin of depletion (A-G): F

Type of replacement (release from X, admin exchange, etc.): Release from storage in Green Lake or Guanella Reservoir

Name of aug source(s) (Green Lake, etc.): Green Lake storage, Guanella Reservoir Storage or Henderson Mine Direct release

Water available in aug source (AF): As of 12/31/2025, 96.49 AF in storage in both Guanella Reservoir and Green Lake.

Amount of transit losses incurred: 0.007 acre-feet per year

Total amount of augmentation water, including replacement of transit losses: 0.326 acre-feet per year

Exchange to depletion location required (Y/N): N **Exchange rate required (cfs):** N/A

Exchange potential available (cfs): N/A **Remaining exchange potential after (cfs):** N/A

Measurement device (flume, flow meter, presumptive estimate): Meter

Conditions of Approval: Applicant must comply with all terms and conditions of the County's Basin-Wide Augmentation Plan decreed in Case No. 05CW302, and Applicant must register or permit the Trenberth Well No. 2 with the Division of Water Resources, as noted above in the Application.

Signed: Lisa LeLa Date: 2/17/26

*Note: All approvals are subject to final approval pursuant to the County's augmentation plan decree, Case No. 05CW302.

Exhibit 2 to Water Leasing and Participation Agreement:
Projected Monthly Water Augmentation Notice

Augmentation Deliveries for Water Year 20__

Month	Augmentation*
April	0.0266 acre-feet per Month
May	
June	
July	
August	
September	
October	
November	
December	
January	
February	
March	
Total	0.319 acre-feet plus transit losses of 0.007 acre-feet/year.

TOTAL: 0.326 acre-feet per year

*Augmentation water not to exceed 0.326 acre-feet per year.

Exhibit 3 to Water Leasing and Participation Agreement:
Calculation of Lease Price

Calculation of Lease Price:

The Lease Price for Water in any Water Year shall be computed according to the following formula:

$$P = \frac{\$(D)\ (A)\ (B)}{(C)}$$

Where:

P = Lease Price

A = Total number of acre feet of Water leased hereunder for the Water Year in question.

B = The Consumer Price Index for the reporting period preceding the first day of the Water Year.

C = The CPI (U) for the later of (a) the reporting period preceding April 1, 20___ (at the date hereof, the period July-December 20___) or (b) the reporting period preceding the effective date of the most recent Delivered Base Rate adjustment.

D = Delivered Base Rate

In the event that the United States Department of Commerce ceases to publish the CPI (U) or ceases to publish same on a semi-annual basis or for the Denver-Boulder-Greeley metropolitan area, then Clear Creek shall select the index which most as most closely reflects the factors taken into account by the Department of Commerce in computation of the CPI (U) for the Denver-Boulder-Greeley metropolitan area.

Exhibit 4

0702532_January-2026.xls

Clear Creek County Augmentation Plan

January 2026

To: Div1Acounting@state.co.us, jason.smith2@state.co.us

Owner Information:
Board of County Commissioners of the County of Clear Creek
c/o Lisa Leben
P.O. Box 2000
Georgetown, CO 80444
(303) 679-2434

Owner's Engineer:
DiNatale Water Consultants
c/o Stephen Buechner
3100 Arapahoe Avenue, Suite 102
Boulder, CO 80303
(303) 709-7044

Table No. 1

Water Rights In Priority

Water Commissioner: *Smith (970) 352-8712*

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

Date	In priority?	Admin No.	Call Name	Water Source	Does call affect diversions and require replacements?	List sub-basins affected if call located within Clear Creek Co.
12/1/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/2/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/3/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/4/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/5/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/6/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/7/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/8/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/9/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/10/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/11/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/12/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/13/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/14/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/15/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/16/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/17/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/18/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/19/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/20/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/21/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/22/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/23/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/24/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/25/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/26/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/27/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/28/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/29/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/30/25	No	19055.00000	Croke Canal	Clear Creek	Yes	
12/31/25	No	19055.00000	Croke Canal	Clear Creek	Yes	

Exhibit 4

Table No. 2

Diversions

Case No. 05CW302 Accounting

Clear Creek County Augmentation Plan

4	5	6	7	8	10	12	13	14	15	16	17	18	19	20	21	22	23	25	26	27	29	30	32	33	34	35

*No editing required

'Graham Contracting not included in total as it is replaced at the beginning of the month from Guanella Reservoir

Date	Call Admin No.	Sub-basin A	Sub-basin C	Sub-basin F			Sub-basin A	Sub-basin D	Sub-basin D	Sub-basin F	Sub-basin C	Sub-basin D	Sub-basin F	Sub-basin C	Sub-basin F	Sub-basin F			Sub-basin F	Sub-basin D	Sub-basin F	Sub-basin B		Sub-basin F	Sub-basin C	Sub-basin C	Sub-basin F	Sub-basin F	Sub-basin F	Sub-basin F	Sub-basin E	Sub-basin E	Total Water Diversions (ac-ft)
								Road & Bridge														Town of Georgetown										
		Silver Plume	Conestoga Wagon Park	Clear Creek County Animal Control (Commercial)	Clear Creek County Animal Control (Animal Water)	Clear Creek County Animal Control (Irrigation)	Colorado Historical Society	County Road & Bridge - Bridge Shop	County Road & Bridge - Hawatha	County Road & Bridge - Kermits	County Road & Bridge - Jones Pass	Mill Creek Park	Western Inn	Empire Junction	Vail Summit Resorts, Inc.	Easter Seals In-House Usage	Easter Seals Pond Evaporation	Easter Seals Livestock Watering	Game Check Infil. Gallery	Happy Thought Reservoirs/ Mill Ck. Ponds Evaporation	Lawson Adventure Park	Bighorn Crossing Indoor	Bighorn Crossing Brewery	Alvarado Open Space Pond Evaporation	Sparks Ponds Evaporation	Bard Creek Homeowners Pond Evaporation	Idaho Springs RV Park (Indoor Use)	Idaho Springs RV Park (RV Usage)	Lawson Mobile Home Park	Taco Bell	Knight Pond	Bockman Pond	
		WDID: 0706662 (ac-ft)	WDID: 0706116 (ac-ft)	WDID: 0706115 (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: 0706747 (ac-ft)	WDID: 0706745 (ac-ft)	WDID:0706749 (ac-ft)	WDID: 0706854 (ac-ft)	WDID: 0705391 WDID: 0701176 WDID: 0701177 (ac-ft)	WDID: 0706128 WDID: 0706129 (ac-ft)	WDID: 0705135 (ac-ft)	WDID: 0706154 (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: 0707068 (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	WDID: (ac-ft)	
		SE 1/4, SW 1/4, Sec 14, T4S, R75W	SE 1/4, NW 1/4, Sec 21, T3S, R75W	NW 1/4, NW 1/4, Sec 30, T3S, R73W	NW 1/4, NW 1/4, Sec 30, T3S, R73W	NW 1/4, NW 1/4, Sec 30, T3S, R73W	SE 1/4, SW 1/4, Sec 14, T4S, R75W	NW 1/4, NW 1/4, Sec 29, T3S, R73W	NW 1/4, NW 1/4, Sec 29, T3S, R73W	NE 1/4, NW 1/4, Sec 34, T3S, R73W	NE 1/4, SE 1/4, Sec 19, T3S, R75W	W 1/4 Sec 14, T3S, R74W	SE 1/4, NW 1/4, Sec 26 T3S, R74W	SE 1/4, SW 1/4, Sec 27, T3S, R74W	NE 1/4, NE 1/4, Sec 25, T3S, R74W	SW 1/4, SE 1/4, Sec 27, T3S, R74W	SW 1/4, SE 1/4, Sec 27, T3S, R74W	SW 1/4, SE 1/4, Sec 27, T3S, R74W	NW 1/4, SW 1/4, Sec 32, T3S, R72W	SW 1/4, NW 1/4, Sec 19, T3S, R73W	SE 1/4, NE 1/4, Sec 26, T3S, R74W	NW 1/4, NE 1/4, Sec 8, T4S, R74W	NW 1/4, NE 1/4, Sec 8, T4S, R74W	NE 1/4, SW 1/4, Sec 33, T3S, R74W	SW 1/4, SW1/4, Sec. 28, T3S, R74W	Sec. 32 & 33, T3S, R74W	Sec. 28 & 29, T3S, R73W	Sec. 28 & 29, T3S, R73W	NE1/4 NE1/4 Sec 26 T3S R74W	NE1/4 NE1/4 Sec 25 T3S R74W	NE1/4 NE1/4 Sec 20 T3S R73W	NW1/4 NW1/4 Sec 21 T3S R73W	
12/1/25	19055.000	0.126	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/2/25	19055.000	0.126	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/3/25	19055.000	0.126	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/4/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/5/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/6/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/7/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/8/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/9/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/10/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/11/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/12/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/13/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/14/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/15/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/16/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/17/25	19055.000	0.126	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.275
12/18/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/19/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/20/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/21/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/22/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/23/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/24/25	19055.000	0.126	0.016	0.030	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.331
12/25/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324
12/26/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324
12/27/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324
12/28/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324
12/29/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324
12/30/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324
12/31/25	19055.000	0.126	0.016	0.026	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	0.011	0.008	0.003	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.003	0.017	0.020	0.000	0.001	0.017	0.019	0.00003	0.0001	0.324

Exhibit 4

Table No. 3

Out of Priority Depletions

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

***No editing required**

*Graham Contracting not included in total as it is replaced at the beginning of the month from Guanella Reservoir

Day	Cell Admin No.	Sub-basin A	Sub-basin C	Sub-basin F			Sub-basin A	Sub-basin D	Sub-basin D	Sub-basin F	Sub-basin C	Sub-basin D	Sub-basin F	Sub-basin C	Sub-basin F					Sub-basin D	Sub-basin F	Sub-basin B		Sub-basin F	Sub-basin C	Sub-basin C	Sub-basin F	Sub-basin F	Sub-basin F	Sub-basin F	Sub-basin E	Sub-basin E	
								Road & Bridge														Town of Georgetown										
		Silver Plume	Conestoga Wagon Park	Clear Creek County Animal Control (Commercial)	Clear Creek County Animal Control (Animal Water)	Clear Creek County Animal Control (Irrigation)	Colorado Historical Society	County Road & Bridge - Bridge Shop	County Road & Bridge - Hiawatha	County Road & Bridge - Kermits	County Road & Bridge - Jones Pass	Mill Creek	Western Inn	Empire Junction	Vail Summit Resorts, Inc.	Easter Seals In-House Usage	Easter Seals Pond Evaporation	Easter Seals Livestock Watering	Game Check Infil. Gallery	Happy Thought Res./ Mill Ck Ponds Evaporation	Lawson Adventure Park	Bighorn Crossing In-house	Bighorn Crossing Brewery	Alvarado Open Space Pond Evaporation	Sparks Ponds Evaporation	Bard Creek Homeowners Pond Evaporation	Idaho Springs RV Park (Indoor Use)	Idaho Springs RV Park (RV Usage)	Lawson Mobile Park	Taco Bell	Knight Pond	Bockman Pond	Total Customer Depletions
		WDID: 0700662	WDID: 0706116	WDID: 0706115	WDID:	WDID:	WDID:	WDID: 0700746	WDID: 0700747	WDID: 0700745	WDID:0700749	WDID: 0700654	WDID: 0705091 WDID: 0701176 WDID: 0701177	WDID: 0706128 WDID: 0706129	WDID: 0705135	WDID:0706154	WDID:	WDID:	WDID:	WDID:	WDID:	WDID:	WDID:	WDID: 0700750	WDID:	WDID:	WDID:	WDID:	WDID:	WDID:	WDID:	
		(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)
Wastewater Treatment Method:		WWTP	OWTS	WWTP	-	-	-	-	-	-	-	OWTS	WWTP	OWTS	WWTP	OWTS	-	-	-	-	OWTS	WWTP	WWTP	-	-	-	WWTP	WWTP	WWTP	WWTP	WWTP	
Depletion Percentage:		5%	10%	5%	100%	85%	100%	100%	100%	100%	100%	10%	5%	10%	15%	10%	100%	100%	85%	100%	10%	5%	100%	100%	100%	100%	5%	100%	5%	5%	100%	100%	
Return Flow Percentage:		95%	90%	95%	0%	15%	0%	0%	0%	0%	0%	90%	95%	90%	85%	90%	0%	0%	15%	0%	90%	95%	0%	0%	0%	0%	95%	0%	95%	95%	0%	0%	
12/1/25	19055.000	0.006	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.018
12/2/25	19055.000	0.006	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/3/25	19055.000	0.006	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/4/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/5/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/6/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/7/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/8/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/9/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/10/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/11/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/12/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/13/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/14/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/15/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/16/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/17/25	19055.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.016
12/18/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/19/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/20/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/21/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/22/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/23/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/24/25	19055.000	0.006	0.002	0.001	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.045
12/25/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041
12/26/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041
12/27/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041
12/28/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041
12/29/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041
12/30/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041
12/31/25	19055.000	0.006	0.002	0.001	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.0010	0.00000	0.00000	0.041

Table No. 4

Reservoir Storage Contents

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

Not yet constructed

Month	Green Lake Case No. 09CW277 WDID: 0704384				Guanella Reservoir Case No. 10CW78 WDID: 0704030				Clear Creek Reservoir No. 2 Case No. 00CW265 WDID: 0703012		Clear Creek Reservoir No. 3 Case No. 00CW265 WDID: 0703013		Clear Creek Reservoir No. 4 Case No. 00CW265 WDID: 0703014		Ball Placer Reservoir Case No. 01CW290 WDID: 0703302		Leavenworth Reservoir No. 1 Case No. 01CW290 WDID: 0703303		Leavenworth Reservoir No. 2 Case No. 01CW290 WDID: 0703304		Bakerville Reservoir No. 1 Case No. 01CW290 WDID: 0703305		Bakerville Reservoir No. 2 Case No. 01CW290 WDID: 0703306		Grizzly Gulch Reservoir Case No. 05CW303 WDID: 0703027	
	Beginning of Month (ac-ft) (A)	End of Month (ac-ft) (B)	Inflow (ac-ft) (C)	Outflow (ac-ft) (D)	Beginning of Month (ac-ft) (E)	End of Month (ac-ft) (F)	Inflow (ac-ft) (G)	Outflow (ac-ft) (H)	Beginning of Month (ac-ft) (I)	End of Month (ac-ft) (J)	Beginning of Month (ac-ft) (K)	End of Month (ac-ft) (L)	Beginning of Month (ac-ft) (M)	End of Month (ac-ft) (N)	Beginning of Month (ac-ft) (O)	End of Month (ac-ft) (P)	Beginning of Month (ac-ft) (Q)	End of Month (ac-ft) (R)	Beginning of Month (ac-ft) (S)	End of Month (ac-ft) (T)	Beginning of Month (ac-ft) (U)	End of Month (ac-ft) (V)	Beginning of Month (ac-ft) (W)	End of Month (ac-ft) (X)	Beginning of Month (ac-ft) (Y)	End of Month (ac-ft) (Z)
Jun-25	80.23	90.15	0.00	2.54	23.36	48.44	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jul-25	90.15	84.91	0.00	2.52	52.95	46.67	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aug-25	84.91	76.25	0.00	3.32	46.67	42.56	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sep-25	76.25	70.91	0.00	1.77	42.56	40.38	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oct-25	70.91	32.29	0.00	1.04	40.38	69.76	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nov-25	32.29	30.47	0.00	0.95	69.76	67.82	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dec-25	30.47	29.50	0.00	0.58	67.82	66.99	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jan-26	29.50		0.00	0.34	66.99		0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feb-26			0.00	0.00			0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mar-26			0.00	0.00			0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apr-26			0.00	0.00			0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
May-26			0.00	0.00			0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Beginning and End of Month Reservoir Storage Contents provided from Black Hawk and Golden for Green Lake and Guanella Reservoirs, respectively. Detailed accounting for Green Lake and Guanella Reservoir containing data on inflows, releases, losses and contents by water type are submitted monthly by Black Hawk and Golden, respectively. Detailed accounting for Clear Creek Reservoirs Nos. 2, 3 & 4, Ball Placer Reservoir, Leavenworth Reservoirs Nos. 1 & 2, Bakerville Reservoirs Nos. 1 & 2, and Grizzly Gulch Reservoir containing data on inflows, releases, losses and contents by water type will be provided by the Applicant in accordance with their respective decrees upon reservoir construction.*

Exhibit 4

Table No. 5

Replacements

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

Step 1: **Please enter daily inflow and release information into Columns (A), (B), (C), (D), (E), (F) and (G).**

Day	Inflows & Releases													
	Vidler Tunnel Inflow to Basin		Direct Deliveries through Vidler Tunnel Applied to Augmentation		Vidler Exchange to Guanella 02CW379 for Storage		Vidler Exchange to Green Lake 05CW302 for Storage		Case No. 09CW277 Green Lake Inflows (Non-Vidler) to Storage*		Case No. 10CW78 Guanella Reservoir Releases		Case No. 09CW277 Green Lake Releases	
	WDID: 0704626		WDID: 0704626		WDID: 0704626		WDID: 0704626		WDID: 0704384		WDID: 0704030		WDID: 0704384	
	(ac-ft) (A)	(cfs)	(ac-ft) (B)	(cfs)	(ac-ft) (C)	(cfs)	(ac-ft) (D)	(cfs)	(ac-ft) (E)	(cfs)	(ac-ft) (F)	(cfs)	(ac-ft) (G)	(cfs)
12/1/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/2/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/3/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/4/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/5/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/6/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/7/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/8/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/9/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/10/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/11/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/12/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/13/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/14/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/15/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/16/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/17/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/18/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/19/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/20/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/21/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/22/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/23/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/24/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/25/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/26/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/27/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/28/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/29/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/30/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/31/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Day	Transit Losses							
	Vidler Tunnel Deliveries Transit Losses		Vidler Tunnel to Guanella Reservoir Transit Losses		Vidler Tunnel to Green Lake Transit Losses		Reservoirs to Users Transit Losses	
	WDID: 0704626		WDID: 0704030		WDID: 0704626			
	(ac-ft) (H)	(cfs)	(ac-ft) (I)	(cfs)	(ac-ft) (J)	(cfs)	(ac-ft) (K)	(cfs)
12/1/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/2/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/3/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/4/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/5/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/6/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/7/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/8/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/9/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/10/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/11/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/12/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/13/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/14/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/15/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/16/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/17/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/18/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/19/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/20/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/21/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/22/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/23/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/24/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/25/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/26/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/27/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/28/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/29/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/30/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12/31/25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table No. 6

Exchanges

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

Step 1: **Please enter exchange information into Columns (A), (B), (C), (D), (E), (F) and (G)**

**Applicant shall notify and obtain approval of the Water Commissioner prior to operating any of the decreed exchanges and shall notify the Water Commissioner upon the completion of such operation. Notification shall include the proposed exchange to be operated, the exchange-to points and the source of replacement water.*

Start Date (A)	End Date (B)	Case No. (C)	Exchange To Point (D)	Exchange From Point (E)	Exchange Amount (cfs) (F)	Sub-Basin (G)
12/1/25	12/31/26	05CW302	Silver Plume	Confl. of S. Clear Creek and Clear Creek	0.003	A
12/1/25	12/31/26	05CW302	Mill Creek	Confl. of Clear Creek and Mill Creek	0.001	D
12/1/25	12/31/26	05CW302	Happy Thoughts Reservoirs	Confl. of Clear Creek and Mill Creek	0.000	D
12/1/25	12/31/26	05CW302	Sparks Ponds	Confl. Of W. Clear Creek and Clear Ck.	0.000	C
12/1/25	12/31/26	05CW302	Bard Creek Valley HOA Pond	Confl. Of W. Clear Creek and Clear Ck.	0.000	C
12/1/25	12/31/26	05CW302	Graham Knight Pond	Confl. Of Fall River and Clear Creek	0.00000	E
12/1/25	12/31/26	05CW302	Bockman Pond	Confl. Of Fall River and Clear Creek	0.00000	E
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

(A) Start date of Exchange
(B) End date of exchange
(C) Case No. for Exchange operated
(D) Exchange To Point (where water diverted)
(E) Exchange From Point (where water released)
(F) Exchange amount (cfs)
(G) Sub-basin(s) where exchange is located

Exhibit 4

Table No. 7

Monthly Water Balance

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

(A) 1 acre-foot is released from Henderson Mine each month
(B) Column A less transit losses
(C) Seepage from Green Lake, measured and scaled for County
(D) Column (C) less transit loss
(E) Table 3 Total Customer Depletions

(F) = (A) + (B) + (C) + (D) + (E)
(G) Table 5 (B) - Table 5 (H)
(H) Table 5 (F) + Table 5 (G) - Table 5 (K)
(I) Total replacements made by substitute supply by exchange from Table 6; calculated each day
(J) = (A) + (B) + (C) + (D) + (G) + (H)
(K) = (E) + (J)

Day	Henderson Mine Direct Releases (ac-ft) (A)	Henderson Mine Water Transit Losses (ac-ft) (B)	Green Lake Seepage (Clear Ck. Cty Portion) (ac-ft) (C)	Green Lake Seepage Transit Losses (ac-ft) (D)	Total Out of Priority Customer Depletions (ac-ft) (E)	Total Out of Priority Customer Depletions After Applying Henderson Mine Releases and Green Lake Seepage (ac-ft) (F)	Additional Augmentation Water		Total Substitute Supply Used in Exchange (ac-ft) (I)	Total Augmentation Water Applied to Customer Depletions (ac-ft) (J)	Net Deficit (-) or Credit (+) (ac-ft) (K)
							Direct Deliveries through Vidler Tunnel Applied to Augmentation (ac-ft) (G)	Sum of Guanella Reservoir & Green Lake Releases (ac-ft) (H)			
12/1/25	0.032	-0.002	0.0220	-0.001	-0.018	0.033	0.000	0.000	0.008	0.052	0.033
12/2/25	0.032	-0.002	0.0220	-0.001	-0.016	0.035	0.000	0.000	0.008	0.052	0.035
12/3/25	0.032	-0.002	0.0220	-0.001	-0.016	0.035	0.000	0.000	0.008	0.052	0.035
12/4/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/5/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/6/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/7/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/8/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/9/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/10/25	0.032	-0.002	0.0210	-0.001	-0.016	0.034	0.000	0.000	0.008	0.051	0.034
12/11/25	0.032	-0.002	0.0200	-0.001	-0.016	0.033	0.000	0.000	0.008	0.050	0.033
12/12/25	0.032	-0.002	0.0200	-0.001	-0.016	0.033	0.000	0.000	0.008	0.050	0.033
12/13/25	0.032	-0.002	0.0190	-0.001	-0.016	0.032	0.000	0.000	0.008	0.049	0.032
12/14/25	0.032	-0.002	0.0190	-0.001	-0.016	0.032	0.000	0.000	0.008	0.049	0.032
12/15/25	0.032	-0.002	0.0190	-0.001	-0.016	0.032	0.000	0.000	0.008	0.049	0.032
12/16/25	0.032	-0.002	0.0180	-0.001	-0.016	0.032	0.000	0.000	0.008	0.048	0.032
12/17/25	0.032	-0.002	0.0180	-0.001	-0.016	0.032	0.000	0.000	0.008	0.048	0.032
12/18/25	0.032	-0.002	0.0180	-0.001	-0.045	0.003	0.000	0.000	0.008	0.048	0.003
12/19/25	0.032	-0.002	0.0180	-0.001	-0.045	0.003	0.000	0.000	0.008	0.048	0.003
12/20/25	0.032	-0.002	0.0170	-0.001	-0.045	0.002	0.000	0.000	0.008	0.047	0.002
12/21/25	0.032	-0.002	0.0170	-0.001	-0.045	0.002	0.000	0.000	0.008	0.047	0.002
12/22/25	0.032	-0.002	0.0170	-0.001	-0.045	0.002	0.000	0.000	0.008	0.047	0.002
12/23/25	0.032	-0.002	0.0160	-0.001	-0.045	0.001	0.000	0.000	0.008	0.046	0.001
12/24/25	0.032	-0.002	0.0160	-0.001	-0.045	0.001	0.000	0.000	0.008	0.046	0.001
12/25/25	0.032	-0.002	0.0160	-0.001	-0.041	0.005	0.000	0.000	0.008	0.046	0.005
12/26/25	0.032	-0.002	0.0160	-0.001	-0.041	0.005	0.000	0.000	0.008	0.046	0.005
12/27/25	0.032	-0.002	0.0160	-0.001	-0.041	0.005	0.000	0.000	0.008	0.046	0.005
12/28/25	0.032	-0.002	0.0150	-0.001	-0.041	0.004	0.000	0.000	0.008	0.045	0.004
12/29/25	0.032	-0.002	0.0150	-0.001	-0.041	0.004	0.000	0.000	0.008	0.045	0.004
12/30/25	0.032	-0.002	0.0210	-0.001	-0.041	0.009	0.000	0.000	0.008	0.051	0.009
12/31/25	0.032	-0.002	0.0200	-0.001	-0.041	0.009	0.000	0.000	0.008	0.050	0.009

Table No. 8

Annual Water Balance

Case No. 05CW302 Accounting
Clear Creek County Augmentation Plan

Step 1: **Hit the "Update Summary" button**

Current month:	**January**
Total Replacement Water :	**1.119**
Total Customer Depletions:	**-0.417**
Net Depletion/Credit:	**0.702**

Month	Total Replacement Water (acre-feet)	Total Customer Depletions (acre-feet)	Net Depletion/Credit (acre-feet)
Jun-25	6.317	-5.082	1.234
Jul-25	7.264	-7.241	0.023
Aug-25	7.126	-6.588	0.539
Sep-25	3.822	-5.218	-1.396
Oct-25	7.147	-4.282	2.865
Nov-25	2.918	-2.651	0.268
Dec-25	1.504	-0.878	0.626
Jan-26			
Feb-26			
Mar-26			
Apr-26			
May-26			
Total	**36.098**	**-31.940**	**4.158**

Exhibit 5 to Water Leasing and Participation Agreement: Assignment and Assumption Template

ASSIGNMENT AND ASSUMPTION OF WATER LEASING AND BASIN-WIDE AUGMENTATION PLAN PARTICIPATION AGREEMENT

This **ASSIGNMENT AND ASSUMPTION OF WATER LEASING AND BASIN-WIDE AUGMENTATION PLAN PARTICIPATION AGREEMENT** ("Assignment"), dated _____, 20__, is made and entered into by and between _____, with a mailing address of _____ ("Assignor") and, _____, with a mailing address of _____ ("Assignee").

RECITALS

A. Assignor is presently the holder of the lessee's interest under the provisions of a Water Leasing and Basin-Wide Augmentation Plan Participation Agreement ("Agreement") by and between the Board of County Commissioners of the County of Clear Creek ("Clear Creek") and Assignor, with an effective date of _____, 20__, wherein Clear Creek agreed to make a portion of its Water Rights, as defined in the Agreement, available to Assignor under the terms of that Agreement and to release augmentation water for Assignor to replace out-of-priority depletions under the terms of the Agreement. A true and complete copy of the Agreement and all exhibits thereto was recorded in the records of the Clear Creek County Clerk and Recorder, on _____, 20__, at Reception No. _____.

B. Paragraph 18 of the Agreement allows Assignor to assign the Agreement for the use of the Water, as defined in the Agreement, only for those purposes described in Section 5 of the Agreement, without the prior written approval of Clear Creek, provided that the assignment is in the form of the assignment template attached to the Agreement and provided that Assignor provides a copy of this Assignment to Clear Creek within thirty (30) days of the Effective Date, as defined below.

C. Assignor desires to assign all of its right, title, and interest in and to the Agreement to Assignee as of the Effective Date, and Assignee agrees to assume and be fully responsible for all of the obligations of the Assignor, as the lessee under the Agreement and to use the water provided under the Agreement only for those purposes described in Section 5 of the Agreement.

D. Accordingly, Assignor and Assignee desire to execute and enter into this Assignment in order to evidence and accomplish the purposes set forth in the above Recitals as of the Effective Date.

NOW, THEREFORE, for and in consideration of the foregoing Recitals, and the mutual covenants contained herein, and for such other good and valuable consideration, the receipt, adequacy, and legal sufficiency of which are hereby expressly acknowledged by Assignor and Assignee, and intending to be legally bound hereby, Assignor and Assignee do hereby specifically covenant and agree as follows:

AGREEMENT

1. Recitals.

The above and foregoing Recitals are made an integral part of this Assignment, and Assignor and Assignee expressly acknowledge and agree that this Assignment is intended to effect the purposes of those Recitals.

2. Assignment.

As of the Effective Date, Assignor hereby assigns, conveys, transfers and sets over unto Assignee, all of Assignor's right, title, and interest as lessee, in, to, and under the Agreement, expressly subject to the rights and privileges of Clear Creek under that Agreement. Assignor represents and warrants to Assignee that Assignor's right, title, and interest in and to the Agreement is free of any and all liens, charges, or encumbrances of any kind or nature whatsoever and that Assignor has fully paid and satisfied any and all fees and payments due under the Agreement to Clear Creek. Assignor also represents and warrants that Assignor has not previously assigned, transferred, or conveyed any part or all of their right, title, or interest under the Agreement to any other person or entity.

3. Assumption.

Assignee hereby assumes and agrees to pay, perform, fulfill, and comply with all covenants and obligations to be paid, performed, fulfilled, or complied with by the lessee under the Agreement, from and after the Effective Date and for the remainder of the term of the Agreement, including any renewal term pursuant to Section 8 of the Agreement, except that, in the event there are any unpaid fees or payments, of any kind or nature whatsoever, which became due under the Agreement before the Effective Date, Assignee also assumes and agrees to pay any and all such fees and payments, notwithstanding their accrual before the Effective Date.

4. Liability.

Assignor and Assignee agree that:

(a) Assignee shall be responsible to Clear Creek under the Agreement for the discharge and performance of any and all duties and obligations to be performed and/or discharged by the lessee of the Agreement arising from and after (but not prior to) the Effective Date of this Assignment, except as provided below in Paragraph 4(c)

(b) Assignor shall remain fully liable to Clear Creek for the performance of all of the terms, covenants, and conditions to be performed and/or discharged by the lessee of the Agreement arising prior to (but not from and after) the Effective Date of this Assignment, except as provided below in Paragraph 4(c).

(c) For any and all unpaid fees and payments due under the Agreement, of any kind or nature whatsoever, regardless of whether accrued and first owed before or after the Effective Date of this Assignment, Assignee shall be liable to Clear Creek for such fees and payments.

5. Miscellaneous.

(a) Effective Date. This Assignment shall take effect on the date that Assignor conveys the real property benefitted by the Agreement to Assignee, as evidenced by the applicable deed or other recorded conveyance instrument ("Effective Date").

(b) Recording. Promptly after the Effective Date, Assignor shall record this Assignment in the official records of the Clerk and Recorder of Clear Creek County.

(c) Recorded Copy to Clear Creek. Consistent with Paragraph 18 of the Agreement, within thirty (30) days of the Effective Date, Assignor shall provide a copy of this Assignment, as recorded and including the recording information, to Clear Creek.

(d) Authority. Each party to this Assignment represents and warrants to the other parties to this Assignment that it is duly authorized to enter into this Assignment and to perform its respective obligations hereunder without the consent or approval of any other person or party, and that the person(s) signing this Assignment on its respective behalf is duly authorized to sign on behalf of such party.

(e) Disclaimer. The transfer and assignment set forth herein is made by Assignor without any express or implied representation or warranty of any kind or nature, except as expressly set forth in this Assignment.

(f) No Third-Party Beneficiaries. Nothing in this Assignment, express or implied, is intended or shall be construed to confer upon, or give to, any person, corporation, or other entity, other than the named parties to this Assignment, any rights, remedies, obligations, or liabilities; however, this Assignment does not modify or waive any of the rights or remedies of Clear Creek that are set forth in the Agreement.

(g) Binding Effect and Interpretation. This Assignment shall be binding upon and inure to the benefit of the Assignor and the Assignee, and their respective successors, heirs, and permitted assigns. Assignor and Assignee understand, agree, and acknowledge that (i) this Assignment has been freely negotiated by all of the parties hereto; and (ii) in any controversy, dispute or contest over the meaning, interpretation, validity or enforceability of this Assignment, or any of its terms or conditions, there shall not be any inference, presumption, or conclusion drawn whatsoever against any party by virtue of that party having drafted this Assignment, or any portion thereof.

(h) Counterparts. This Assignment may be executed in two or more counterparts, each of which shall be deemed an original copy, and all of which together will constitute one and the same instrument.

(i) Entire Agreement. This Assignment represents the entire understanding and agreement between the Assignor and Assignee with respect to the subject matter hereof, and no amendment or modification of this Assignment shall be effective unless it is set forth in a writing

specifically stating that it is intended to be an amendment hereof, specifying what provision hereof is being amended thereby, and signed by the Assignor and Assignee.

(j) Severability. If any term or provision of this Assignment is invalid, illegal, or incapable of being enforced by virtue of any federal or state law, or public policy, all other terms and provisions of this Assignment shall nevertheless remain in full force and effect so long as the legal substance of the transaction contemplated hereby is not affected in any manner materially adverse to any of the parties to this Assignment. Upon such determination that any such term or provision is invalid, illegal, or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Assignment to affect the original intent of the parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby are consummated as originally contemplated to the greatest extent possible.

[***Signature Pages Follow***]

IN WITNESS WHEREOF, Assignor and Assignee have each caused this Assignment to be duly executed as of the date first written above.

ASSIGNOR:

By: _____
Name: _____
Title: _____

STATE OF COLORADO)
) ss.
County of _____)

Subscribed under oath before me on this _____ day of _____, 20____, by _____ of _____.

My commission expires: _____.

_____

Notary Public

ASSIGNEE: _____

By: _____
Name: _____

STATE OF COLORADO)
) ss.
County of _____)

Subscribed under oath before me on this _____ day of _____, 20____, by _____.

My commission expires: _____.

_____
Notary Public

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Carol Ann Fortune, Human Resources Director
Subject: Consideration of Resolution R-26-29, a Resolution Adopting the Amended 2024 Compensation Plan for All County Employees, Including Those of Elected County Officials, and Rescinding Resolution R-25-78

RECOMMENDATION

Staff recommends approval of Resolution R-26-29**,** a Resolution Adopting the Amended 2024 Compensation Plan for All County Employees, Including Those of Elected County Officials, and Rescinding Resolution R-25-78.

BACKGROUND

The Clear Creek County Compensation Plan is periodically updated to reflect organizational changes, Board policy decisions, and adjustments approved through the annual budget process. Maintaining an accurate Compensation Plan ensures that the County's position classifications and salary ranges align with current operational structures.

During the 2025 calendar year and the 2026 budget planning processes, the Board of County Commissioners approved several organizational changes that impact positions currently listed in the Compensation Plan. As a result, Human Resources has prepared updates to Exhibit A of the Plan to remove positions that are no longer utilized, update positions that have been restructured, and add positions that have been approved for implementation.

These updates reflect administrative and operational changes already approved by the Board and are intended to ensure that the Compensation Plan accurately reflects the County's current organizational structure.

ANALYSIS

The proposed amendments to the Compensation Plan include the following updates:

Positions Removed from the Compensation Plan

Several positions are being removed from the Compensation Plan because they are no longer utilized or have been replaced by updated positions approved by the Board:

- **Laborer/Cashier – Transfer Station (Range 11)**
  Removed because the Board previously approved converting this seasonal role to a full-time year-round Transfer Station position currently reflected in Range 12, during the 2026 budget process.
- **Deputy Clerk Treasurer (Range 13)**
  Removed following structural changes approved by the Board in 2025, establishing two Chief Deputy Clerk positions and eliminating the Deputy Clerk Treasurer role.

Board Agenda Background

- **Captain – Administrative and Special Services (Sheriff's Office) (Range 27)**
  Removed and replaced with a Special Services Lieutenant position in Range 26 to better align with operational needs within the Sheriff's Office. (not currently approved by the Board).
- **Assistant to the Public Works Director / County Engineer (Range 27)**
  Removed following the retirement of the Public Works Director and the consolidation of responsibilities into the new Public Works Director role.
- **IT Director (Range 28)**
  Removed following the Board's decision during the 2026 budget process to replace the position with contracted information technology services.

Positions Added to the Compensation Plan

- **Trek Teen Council Coordinator (Range 13)**
  Added back to the Compensation Plan to support the Mountain Youth Network (MYN) Trek Teen Council Program, which serves as a youth advisory group representing the voice of students in Clear Creek County and supporting community prevention initiatives. The position provides coordination, planning, and facilitation of youth leadership activities, outreach events, and community presentations aligned with the Communities That Care and Positive Youth Development frameworks.

  The position was previously left unfilled due to temporary funding reductions in 2025, but can now be reinstated due to secured grant funding through the GROC program and the EPIC (Elevating Prevention in Colorado) grant, providing funding for the position through June 2031.
- **Special Services Lieutenant (Range 26)**
  Position created to replace Captain of Administrative and Special Services, to better align with operational needs within the Sheriff's Office. (not currently approved by the Board)
- **Long Range Planner (Range 24)**
  Added following Board approval during the 2026 budget process to support long-term planning and development initiatives.
- **Community Development Director (Range 28)**
  Added to replace the Strategic and Community Planning Director position that was eliminated in 2025, reflecting the County's updated organizational structure for planning and community development functions. This position will be posted internally and represents a net-zero change in the County's current FTE count.

  If filled through an internal promotion, a small salary adjustment may be required depending on the selected candidate, but it is not expected to impact the overall STATCOMM division budget. The position has not yet been posted, and revenues will be monitored closely before the position is posted. (not currently approved by the Board)

These updates do not change the underlying salary-grade structure of the Compensation Plan and are administrative in nature, ensuring the Plan accurately reflects positions currently authorized by the Board.

Board Agenda Background

CONCLUSION

The proposed amendments update the Compensation Plan to reflect organizational changes approved by the Board through prior policy and budget decisions. Updating the Plan ensures the County maintains an accurate and transparent compensation framework that aligns with the current organizational structure.

Staff recommends adoption of Resolution R-26-29, which incorporates these updates into the Compensation Plan and rescinds Resolution 25-78.

FISCAL IMPACT

The amendments reflect positions and organizational changes previously approved through the County's budget process. Any fiscal impacts associated with these positions have already been incorporated into the applicable departmental budgets.

ATTACHMENTS:

1. Resolution R-26-29 – with Exhibits A and B
2. Resolution R-25-78 – to be rescinded

R-26-29

A RESOLUTION ADOPTING THE AMENDED 2024 COMPENSATION PLAN FOR ALL COUNTY EMPLOYEES, INCLUDING THOSE OF ELECTED COUNTY OFFICIALS, AND RESCINDING RESOLUTION R-25-78

WHEREAS, the Clear Creek County Board of County Commissioners ("Board") desires to maintain a competitive compensation plan to attract, retain, and motivate qualified employees while adhering to the County's fiscal responsibilities; and

WHEREAS, on September 2, 2025, the Board adopted the 2024 Amended Compensation Plan ("Plan") by Resolution R-25-78; and

WHEREAS, from time to time the Compensation Plan must be updated to reflect organizational changes approved by the Board of County Commissioners through the budget process and other Board actions; and

WHEREAS, the Compensation Plan Guidelines previously referenced the potential use of traditional merit increases, which have not been consistently funded or implemented due to budgetary and operational considerations; and

WHEREAS, the Board approved converting the seasonal Laborer/Cashier Transfer Station position to a full-time year-round position during the 2026 budget process, and the seasonal position in Range 11 will therefore be removed from the Compensation Plan; and

WHEREAS, the Board approved structural changes within the Treasurer's Office in 2025, establishing two Chief Deputy Clerk positions and eliminating the Deputy Clerk Treasurer position; and

WHEREAS, the Sheriff's Office has reorganized administrative operations, resulting in the removal of the Captain: Administrative and Special Services position and the creation of a Special Services Lieutenant position in Range 26; and

WHEREAS, the Assistant to the Public Works Director/County Engineer position has been removed following the retirement of the Public Works Director and consolidation of responsibilities within the Public Works leadership structure; and

WHEREAS, during the 2026 budget process, the Board approved replacing the IT Director position with contracted information technology services; and

WHEREAS, grant funding has been restored for the Trek Teen Council Coordinator position, allowing the position to be reinstated within the Compensation Plan; and

WHEREAS, the Board approved the creation of a Long Range Planner position in Range 24 during the 2026 budget process to support long-term planning initiatives; and

WHEREAS, the Community Development Director position has been created in Range 28 to replace the previously eliminated Strategic and Community Planning Director position and reflect the County's proposed organizational structure; and

WHEREAS, these updates have been reviewed for consistency and do not materially alter the overall structure of the Compensation Plan; and

WHEREAS, these changes are included in an Amended 2024 Compensation Plan ("Amended Plan"), comprised of Exhibit "A" and Exhibit "B" of this Resolution; and

WHEREAS, the Board recognizes the importance of a comprehensive compensation plan that reflects changes in the job market, updated job descriptions, and findings from the 2024 market study conducted using Payfactors from Payscale; and

WHEREAS, the Board strives to ensure equity and consistency in pay practices for all County employees, including those under elected officials and the Sheriff's Office, while maintaining role-specific compensation structures such as step plans for certain Sheriff's Office positions; and

WHEREAS, the Board further strives to apply data-driven compensation practices by utilizing Payfactors from Payscale to align salary grades and ranges with 100% of the survey market value of the midpoint, ensuring transparency and competitiveness; and

WHEREAS, the Amended Plan has a multi-year application, recognizing that employment positions, responsibilities, and economic conditions evolve over time, necessitating periodic adjustments to ensure the Amended Plan remains effective and relevant; and

WHEREAS, the Amended Plan is a "living document" subject to non-fundamental changes to reflect changing circumstances influencing compensation of employees; and

WHEREAS, the Board affirms that transitioning employees into the Amended Plan will be managed equitably, with adjustments to address pay compression and to ensure all eligible employees are compensated appropriately relative to their assigned ranges; and

WHEREAS, the Board supports the implementation of performance-based pay increases to reward contributions and align with the County's goals of fostering accountability and excellence among its workforce; and

WHEREAS, the Board acknowledges the need for cost-of-living adjustments (COLAs) and regular range reviews to maintain alignment with market conditions and ensure long-term sustainability of the Amended Plan; and

WHEREAS, the County Manager, in consultation with the Human Resources Director, shall have the authority to make non-fundamental changes to the Amended Plan, provided the Board is timely apprised, and such changes are subject to further Board action as necessary; and

WHEREAS, all County employee positions, including those of County elected officials, with the exception of Sheriff's Office Detentions Deputy and Sheriff's Office Deputy Sheriff-Patrol, are included in the Non-Exempt and Exempt Salary Grades/Ranges tables attached hereto as Exhibit "A" and the salary grades for the two Sheriff's Office positions of Non-Certified Deputy and Certified Deputy are listed in a separate table attached hereto as Exhibit "B"; and

WHEREAS, it is recommended that the Amended Plan be effective immediately; and

WHEREAS, the Board affirms that any recommendations for modifications to the Amended Plan will be prepared with input from subject matter experts, ensuring consistency with organizational needs and alignment with market data.

NOW, THEREFORE, BE IT RESOLVED, by the Clear Creek County Board of County Commissioners, that the updated Clear Creek County Compensation Plan for All County Employees, Including Those of Elected Officials, attached hereto as Exhibit A & B, are hereby adopted.

BE IT FURTHER RESOLVED, the following positions are removed from Exhibit A of the Compensation Plan: Laborer/Cashier Transfer Station, Deputy Clerk Treasurer, Captain – Administrative and Special Services, Assistant to the Public Works Director / County Engineer, and IT Director.

BE IT EVEN FURTHER RESOLVED, the following positions are added to Exhibit A of the Compensation Plan: Trek Teen Council Coordinator, Special Services Lieutenant, Long Range Planner, and Community Development Director.

BE IT EVEN FURTHER RESOLVED, that the Amended Compensation Plan shall be effective as of March 17, 2026, and shall remain in full force and effect unless amended or rescinded by subsequent action of the Board of County Commissioners.

BE IT EVEN FURTHER RESOLVED, that Resolution R-25-78 is hereby rescinded effective as of the date of adoption of this Resolution.

ADOPTED this 17th day of March, 2026, at a regularly scheduled meeting of the Clear Creek County Board of County Commissioners.

Rebecca Lloyd, Chair

George Marlin, Commissioner

Jodie Hartman-Ball, Commissioner

ATTEST:

Deputy Clerk and Recorder
For Brenda L. Corbett
Clear Creek County Clerk and Recorder

The Amended 2024 Compensation Plan for All County Employees, Including Those of Elected County Officials, attached hereto as Exhibit A & B, are hereby accepted and approved:

_____
Ron Thornton, County Sheriff

_____
Brenda Corbett, County Clerk and Recorder

_____
Chris Hegmann, County Coroner

_____
Carol Lee, County Treasurer & Public Trustee

_____
Donna Gee, County Assessor

_____
Gary Faselt, County Surveyor

EXHIBIT A
Exempt and Non Exempt Grade and Range by Job Title
Rev 03-2026

Range	Type	Job Title	Minimum	Midpoint	Maximum	Spread
10	Non-exempt	MYN Youth Advisor	$ 32,552.00	$ 38,064.00	$ 43,576.00	34%
		MYN Youth Advisor STEPP	$ 15.65	$ 18.30	$ 20.95	
		Election Judge				
11	Non-exempt	Shelter Assistant	$ 36,088.00	$ 42,640.00	$ 49,088.00	36%
			$ 17.35	$ 20.50	$ 23.60	
12	Non-exempt	Facilities Maintenance Worker*	$ 40,248.00	$ 47,736.00	$ 55,224.00	37%
		Laborer/Cashier TS	$ 19.35	$ 22.95	$ 26.55	
		Property Transfer Technician/Mail Clerk				
		Trails Technician				
		Deputy Coroner I				
13	Non-exempt	Bus Operator	$ 44,928.00	$ 53,456.00	$ 61,984.00	38%
		Administrative Assistant II R&B	$ 21.60	$ 25.70	$ 29.80	
		Trek Teen Council Coordinator				
14	Non-exempt	MYN Youth Program Coordinator	$ 50,128.00	$ 59,904.00	$ 69,680.00	39%
		Records Technician	$ 24.10	$ 28.80	$ 33.50	
		Ambulance Billing Specialist				
		Animal Control/CEO*				
		Appraiser Trainee*				
		Bookkeeper-Admin HS				
		Child Support Admin Tech				
		Deputy Clerk and Recorder*				
		Facilities Technician I				
		Inmate Program Coordinator				
		Planning & Building Services Assistant*				
		Accounting Specialist S.O.				
		Shelter Assistant Manager				
		IM Eligibility Case Manager-HS				
15	Non-exempt	Administrative Assistant S.O.*	$ 55,952.00	$ 67,080.00	$ 78,312.00	40%
		Deputy Clerk-Senior*	$ 26.90	$ 32.25	$ 37.65	
		Building Inspector*				
		Caseworker I				
		HR Generalist*				
		Equipment Operator I				
		Planner*				
		Permit Services Technician*				
		Code Enforcement Officer*				
		Trails Supervisor*				
		Office Administrator- HS				
		Facilities Technician II				
		Deputy Coroner II				
		Entry-Level Mechanic				
		MYN Youth Involvement Coordinator				
		Court Security Officer				
		Digital Evidence Custodian				
		Accounts Payable Specialist				
		Level 2 - Help Desk Tech*				
		Emergency Medical Technician**				
		CCIC/NCIC Terminal Agency Coordinator/Records Technician				
		Deputy Clerk to the Board of County Commissioners*				

Range	Type	Job Title	Minimum	Midpoint	Maximum	Spread
16	Non-exempt	Public Health Administrative Assistant*	$ 62,400.00	$ 75,088.00	$ 87,880.00	41%
		Deputy Coroner III	$ 30.00	$ 36.10	$ 42.25	
		Equipment Operator II				
		Public Works Technician				
		Assistance Coordinator HS				
		Engineering Technician*				
		Kitchen Manager				
		Licensed Appraiser*				
		Administrative Specialist R&B				
		Human Resources Analyst*				
17	Non-exempt	Plans Examiner*	$ 69,576.00	$ 84,136.00	$ 98,800.00	42%
		GIS Specialist	$ 33.45	$ 40.45	$ 47.50	
		Shop Foreman R&B				
		Equipment Operator III				
		HR Specialist				
		Senior Mechanic				
		Critical Care Paramedic (FTO $1.50 increase)**				
		Community Paramedic/911**				
18	Non-exempt	Chief Deputy Coroner	$ 77,584.00	$ 94,224.00	$ 110,968.00	43%
		Building Maintenance Supervisor	$ 37.30	$ 45.30	$ 53.35	
19	Non-exempt	Investigator	$ 86,528.00	$ 105,560.00	$ 124,592.00	44%
		Executive Assistant/Senior Paralegal	$ 41.60	$ 50.75	$ 59.90	
		Sergeant - Detentions				
		Sergeant-Patrol				
		Non Certified Sergeant				
		Administrative Sergeant				
		EMS Captain**				
22	Exempt	Caseworker III	$ 60,500.00	$ 73,200.00	$ 85,900.00	44%
		MYN Manager				
		Open Space Coordinator*				
		Transit Supervisor				
		Environmental Health Technician*				
		Veterans Service Officer*				
		Planning & Building Services Operations Manager*				
23	Exempt	Public Health Nurse*	$ 69,000.00	$ 84,200.00	$ 99,400.00	46%
		Environmental Health Specialist Manager*				
		Shelter Manager				
		Grants Administrator				
24	Exempt	Public Information Officer	$ 78,700.00	$ 96,800.00	$ 114,900.00	48%
		Transfer Station Facility Manager				
		Strategic Communication Manager				
		Adult Protection Supervisor				
		School Resource Officer				
		Caseworker Supervisor				
		Emergency Management Director				
		Behavioral Health Co-Responder				
		Captial Projects Manager				
		District Supervisor-R&B				
		Nurse Practitioner - Public Health*				
		Systems Administrator*				
		Senior Accountant				
		Chief Deputy Treasurer and Public Trustee				
		Long Range Planner				

Range	Type	Job Title	Minimum	Midpoint	Maximum	Spread
25	Exempt	Special Projects/Water Resources Manager*	$ 89,800.00	$ 111,300.00	$ 132,900.00	50%
		Captain: Quality Assurance Clinical Education**				
		Psychologist				
		Planning Manager*				
		Public Lands Manager				
26	Exempt	Internal Services Director	$ 102,400.00	$ 128,000.00	$ 153,600.00	52%
		Lieutenant Patrol				
		Lieutenant Detentions				
		Special Services Lieutenant				
		Correctional Nurse				
		CCHAT Director - LCSW				
		Chief Building Official*				
27	Exempt	Public Health Director	$ 116,900.00	$ 147,200.00	$ 177,600.00	54%
		Captain-Patrol				
		Captain-Detentions				
		EMS Director				
		Administrative Services Director				
28	Exempt	Public Works Director	$ 133,300.00	$ 169,300.00	$ 205,300.00	56%
		Human Services Director				
		Undersheriff				
		Community Development Director				
29	Exempt	Finance Director	$ 152,100.00	$ 194,700.00	$ 237,300.00	58%
		Deputy County Manager				
		Assistant County Attorney				
		Human Resources Director				

* Based on 32 hours per week
** Based on 56 hours per week

hourly rate and annualized salary is based on 32 hours per week

EXHIBIT B
CCC Sheriff 7 Step Plan
Rev 08-2025

Step	Job Title	Annual Pay	Hourly	Spread
1	Non Certified Deputy	$ 69,967.90	$ 33.64	
2	Non Certified Deputy	$ 72,067.04	$ 34.65	3.00%
3	Non Certified Deputy	$ 74,229.01	$ 35.69	3.00%
4	Non Certified Deputy	$ 76,455.87	$ 36.76	3.00%
5	Non Certified Deputy	$ 78,749.68	$ 37.86	3.00%
6	Non Certified Deputy	$ 81,111.47	$ 39.00	3.00%
7	Non Certified Deputy	$ 84,015.04	$ 40.17	3.00%

Step	Job Title	Annual Pay		Spread
1	Certified Deputy	$ 90,902.53	$ 43.70	
2	Certified Deputy	$ 93,629.60	$ 45.01	3.00%
3	Certified Deputy	$ 96,438.49	$ 46.36	3.00%
4	Certified Deputy	$ 99,331.64	$ 47.76	3.00%
5	Certified Deputy	$ 102,311.59	$ 49.19	3.00%
6	Certified Deputy	$ 105,380.94	$ 50.66	3.00%
7	Certified Deputy	$ 108,542.37	$ 52.18	3.00%

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R-25-78

RESOLUTION ADOPTING THE AMENDED 2024 COMPENSATION PLAN FOR ALL COUNTY EMPLOYEES, INCLUDING THOSE OF ELECTED COUNTY OFFICIALS, AND RESCINDING RESOLUTION R-25-76

WHEREAS, the Clear Creek County Board of County Commissioners ("Board") desires to maintain a competitive compensation plan to attract, retain and motivate qualified employees while adhering to the County's fiscal responsibilities; and

WHEREAS, on January 7, 2025, the Board adopted the 2024 Compensation Plan ("Plan") by Resolution R-25-09; and

WHEREAS, on January 21, 2025, the Board adopted the 2024 Amended Compensation Plan ("Plan") by Resolution R-25-17; and

WHEREAS, on May 20, 2025, the Board adopted the 2024 Amended Compensation Plan ("Plan") by Resolution R-25-53; and

WHEREAS, on July 1, 2025, the Board adopted the 2024 Amended Compensation Plan ("Plan") by Resolution R-25-63; and

WHEREAS, on August 19, 2025, the Board adopted the 2024 Amended Compensation Plan ("Plan") by Resolution R-25-76; and

WHEREAS, Human Resources and EMS leadership completed a routine role review and prepared an updated EMS Captain job description to clarify core duties and lead-direction responsibilities; and

WHEREAS, with the updated job description in place, the EMS Captain position will be reflected as Non-Exempt (overtime-eligible) on a prospective basis within Exhibit A of the Compensation Plan, effective September 1, 2025; and

WHEREAS, these updates have been reviewed for consistency and do not materially impact the overall structure of the Plan or the 2025 budget; and

WHEREAS, these changes are included in an Amended 2024 Compensation Plan ("Amended Plan"), comprised of Exhibit "A" and "B" of this Resolution; and

WHEREAS, the Board recognizes the importance of a comprehensive compensation plan that reflects changes in the job market, updated job descriptions, and findings from the 2024 market study conducted using Payfactors from Payscale; and

WHEREAS, the Board strives to ensure equity and consistency in pay practices for all County employees, including those under elected officials and the Sheriff's Office, while maintaining role-specific compensation structures such as step plans for certain Sheriff's

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Office positions; and

WHEREAS, the Board further strives to apply data-driven compensation practices by utilizing Payfactors from Payscale to align salary grades and ranges with 100% of the survey market value of the midpoint, which is the difference between previous compensation analysis and current compensation data for a given salary grade, ensuring transparency and competitiveness; and

WHEREAS, the Amended Plan has a multi-year application, recognizing that employment positions, responsibilities, and economic conditions evolve over time, necessitating periodic adjustments to ensure the Amended Plan remains effective and relevant; and,

WHEREAS, the Amended Plan is a "living document" subject to non-fundamental changes to reflect changing circumstances influencing compensation of employees; and

WHEREAS, the Board affirms that transitioning employees into the Amended Plan will be managed equitably, with adjustments to address pay compression and to ensure all eligible employees are compensated appropriately relative to their assigned ranges; and

WHEREAS, the Board supports the implementation of performance-based pay increases to reward contributions and align with the County's goals of fostering accountability and excellence among its workforce; and

WHEREAS, the Board acknowledges the need for cost-of-living adjustments (COLAs) and regular range reviews to maintain alignment with market conditions and ensure long-term sustainability of the Amended Plan; and

WHEREAS, the County Manager, in consultation with the Human Resources Director, shall have the authority to make non-fundamental changes to the Amended Plan, provided the Board is timely apprised, and such changes are subject to further Board action as necessary; and

WHEREAS, all County employee positions, including those of County elected officials, with the exception of Sheriff's Office Detentions Deputy and Sheriff's Office Deputy Sheriff- Patrol, are included in the Non-Exempt and Exempt Salary Grades/Ranges tables attached hereto as Exhibit "A" and the salary grades for the two Sheriff's Office positions of Non-Certified Deputy and Certified Deputy are listed in a separate table, attached hereto as Exhibit "B"; and

WHEREAS, it is recommended that the Amended Plan be effective immediately; and

WHEREAS, the Amended Plan includes strategies for competitive pay, market benchmarking, and adjustments for range penetration, ensuring that all new hires are compensated commensurate with their experience and qualifications; and

WHEREAS, the Board affirms that any recommendations for modifications to the Amended Plan will be prepared with input from subject matter experts, ensuring consistency with organizational needs and alignment with market data.

NOW, THEREFORE, BE IT RESOLVED, by the Clear Creek County Board of County Commissioners:

1. Adoption of the 2024 Amended Compensation Plan: Effective immediately upon adoption of this Resolution, the 2024 Amended Compensation Plan is adopted as stated on the grid of salary grades and job positions attached hereto as Exhibit A and Exhibit B.

2. New Hire Starting Rates: New hire starting rates will be determined based on experience, skills, and market conditions. Hiring managers are authorized to offer compensation up to 10% above the minimum salary range. Offers exceeding this require approval from the County Manager or the relevant Elected Official.

3. Performance-Based Pay: Performance reviews will be conducted annually on the employee's work anniversary date, and future pay increases will be contingent on satisfactory performance evaluations. Employees who do not meet expectations will not receive increases until performance improves, as documented in subsequent evaluations.

4. Addressing Pay Compression: Regular audits will be conducted to address and correct pay compression issues, ensuring long-term employees are compensated equitably in comparison to new hires within the same range.

5. Equitable Adjustments: Eligible employees, as reflected in the current year budget, will receive a wage adjustment to move to the minimum of the new range or 100% of the market increase, whichever is greater. Employees currently above the maximum of their new pay range will not receive additional increases until the range maximum exceeds their current pay.

6. Budgeting for Wage Increases: It is recommended that the County budget for a 3% increase in total salary and wage costs annually, subject to economic conditions, to be distributed equitably among all employees.

7. Non-Fundamental Changes: The County Manager is authorized to make nonfundamental changes to the Amended Plan, in consultation with the Human Resources Director, provided the Board is timely informed and retains ultimate oversight.

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Page 4 of 9 R $0.00 D $0.00 T $0.00 Clear Creek

NOW, THEREFORE BE IT FURTHER RESOLVED, that Resolution R-25-76 is rescinded effective upon the adoption of this Resolution R-25-78.

BE IT EVEN FURTHER RESOLVED that this Resolution shall remain in full force and effect until amended or rescinded by the Clear Creek County Board of County Commissioners.

ADOPTED this 2nd day of September, 2025, at a regularly scheduled meeting of the Clear Creek County Board of County Commissioners.

George Marlin, Chair

Jodie Hartman-Ball, Commissioner

Rebecca Lloyd, Commissioner

ATTEST:

Deputy Clerk and Recorder
For Brenda L. Corbett
Clear Creek County Clerk and Recorder

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[Signatures continue on following page]

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Page 5 of 9 R $0.00 D $0.00 T $0.00 Clear Creek

The Amended 2024 Compensation Plan for All County Employees, Including Those of Elected County Officials, attached hereto as Exhibit A, are hereby accepted and approved:

Matthew Harris, County Sheriff

Brenda Corbett, County Clerk & Recorder

Chris Hegmann, County Coroner

Carol Lee, County Treasurer & Public Trustee

Donna Gee, County Assessor

Gary Faselt, County Surveyor

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Page 5 of 9 R $0.00 D $0.00 T $0.00 Clear Creek

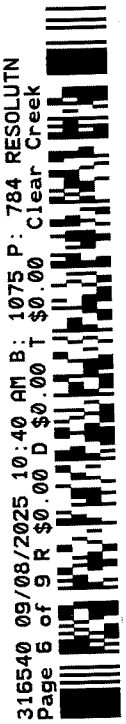
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EXHIBIT A
Exempt and Non Exempt Grade and Range by Job Title
Rev 09-2025

Range	Type	Job Title	Minimum	Midpoint	Maximum	Spread
10	Non-exempt	MYN Youth Advisor	$ 32,552.00	$ 38,064.00	$ 43,576.00	34%
		MYN Youth Advisor STEPP	$ 15.65	$ 18.30	$ 20.95	
		Election Judge				
11	Non-exempt	Laborer/TS seasonal	$ 36,088.00	$ 42,640.00	$ 49,088.00	36%
		Shelter Assistant	$ 17.35	$ 20.50	$ 23.60	
12	Non-exempt	Facilities Maintenance Worker*	$ 40,248.00	$ 47,736.00	$ 55,224.00	37%
		Laborer/Cashier TS	$ 19.35	$ 22.95	$ 26.55	
		Property Transfer Technician/Mail Clerk				
		Trails Technician				
		Deputy Coroner I				
13	Non-exempt	Bus Operator	$ 44,928.00	$ 53,456.00	$ 61,984.00	38%
		Deputy Clerk Treasurer*	$ 21.60	$ 25.70	$ 29.80	
		Administrative Assistant II R&B				
14	Non-exempt	MYN Youth Program Coordinator	$ 50,128.00	$ 59,904.00	$ 69,680.00	39%
		Records Technician	$ 24.10	$ 28.80	$ 33.50	
		Ambulance Billing Specialist				
		Animal Control/CEO*				
		Appraiser Trainee*				
		Bookkeeper-Admin HS				
		Child Support Admin Tech				
		Deputy Clerk and Recorder*				
		Facilities Technician I*				
		Inmate Program Coordinator				
		Planning & Building Services Assistant*				
		Accounting Specialist S.O.				
		Shelter Assistant Manager				
		IM Eligibility Case Manager-HS				
15	Non-exempt	Administrative Assistant S.O.*	$ 55,952.00	$ 67,080.00	$ 78,312.00	40%
		Deputy Clerk-Senior*	$ 26.90	$ 32.25	$ 37.65	
		Building Inspector*				
		Caseworker I				
		HR Generalist*				
		Equipment Operator I				
		Planner*				
		Permit Services Technician*				
		Code Enforcement Officer*				
		Trails Supervisor*				
		Office Administrator- HS				
		Facilities Technician II*				
		Deputy Coroner II				
		Entry-Level Mechanic				
		MYN Youth Involvement Coordinator				
		Court Security Officer				
		Digital Evidence Custodian				
		Accounts Payable Specialist				
		Level 2 - Help Desk Tech*				
		Emergency Medical Technician**				
		CCIC/NCIC Terminal Agency Coordinator/Records Technician				
		Deputy Clerk to the Board of County Commissioners				

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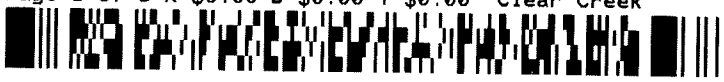


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Range	Type	Job Title	Minimum	Midpoint	Maximum	Spread
16	Non-exempt	Public Health Administrative Assistant*	$ 62,400.00	$ 75,088.00	$ 87,880.00	41%
		Deputy Coroner III	$ 30.00	$ 36.10	$ 42.25	
		Equipment Operator II				
		Public Works Technician				
		Assistance Coordinator HS				
		Engineering Technician*				
		Kitchen Manager				
		Licensed Appraiser*				
		Administrative Specialist R&B				
		Human Resources Analyst*				
17	Non-exempt	Plans Examiner*	$ 69,576.00	$ 84,136.00	$ 98,800.00	42%
		GIS Specialist*	$ 33.45	$ 40.45	$ 47.50	
		Shop Foreman R&B				
		Equipment Operator III				
		HR Specialist*				
		Senior Mechanic				
		Critical Care Paramedic (FTO $1.50 increase)**				
		Community Paramedic/911**				
18	Non-exempt	Chief Deputy Coroner	$ 77,584.00	$ 94,224.00	$ 110,968.00	43%
		Building Maintenance Supervisor*	$ 37.30	$ 45.30	$ 53.35	
19	Non-exempt	Investigator	$ 86,528.00	$ 105,560.00	$ 124,592.00	44%
		Executive Assistant/Senior Paralegal*	$ 41.60	$ 50.75	$ 59.90	
		Sergeant - Detentions				
		Sergeant-Patrol				
		Non Certified Sergeant				
		Administrative Sergeant				
		EMS Captain**				
22	Exempt	Caseworker III	$ 60,500.00	$ 73,200.00	$ 85,900.00	44%
		MYN Manager				
		Open Space Coordinator*				
		Transit Supervisor				
		Environmental Health Technician*				
		Veterans Service Officer*				
		Planning & Building Services Operations Manager*				
23	Exempt	Public Health Nurse*	$ 69,000.00	$ 84,200.00	$ 99,400.00	46%
		Environmental Health Specialist Manager*				
		Shelter Manager				
		Grants Administrator				
24	Exempt	Public Information Officer*	$ 78,700.00	$ 96,800.00	$ 114,900.00	48%
		Transfer Station Facility Manager				
		Strategic Communication Manager				
		Adult Protection Supervisor				
		School Resource Officer				
		Caseworker Supervisor				
		Emergency Management Director				
		Behavioral Health Co-Responder				
		Captial Projects Manager				
		District Supervisor-R&B				
		Nurse Practitioner - Public Health*				
		Systems Administrator*				
		Senior Accountant				
		Chief Deputy Treasurer and Public Trustee*				

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Range	Type	Job Title	Minimum	Midpoint	Maximum	Spread
25	Exempt	Special Projects/Water Resources Manager*	$ 89,800.00	$ 111,300.00	$ 132,900.00	50%
		Captain: Quality Assurance Clinical Education**				
		Psychologist				
		Planning Manager*				
		Public Lands Manager*				
26	Exempt	Internal Services Director	$ 102,400.00	$ 128,000.00	$ 153,600.00	52%
		Lieutenant Patrol				
		Lieutenant Detentions				
		Correctional Nurse				
		CCHAT Director - LCSW				
		Chief Building Official*				
27	Exempt	Assistant to the Public Works Director/County Engineer	$ 116,900.00	$ 147,200.00	$ 177,600.00	54%
		Public Health Director				
		Captain-Patrol				
		Captain-Detentions				
		Captain Admin and Special Services-SO				
		EMS Director				
		Administrative Services Director				
28	Exempt	Public Works Director	$ 133,300.00	$ 169,300.00	$ 205,300.00	56%
		Human Services Director				
		Undersheriff				
29	Exempt	Finance Director/Assistant County Manager	$ 152,100.00	$ 194,700.00	$ 237,300.00	58%
		Deputy County Manager				
		Assistant County Attorney				
		Human Resources Director				
		IT Director				

* Based on 32 hours per week
** Based on 56 hours per week

hourly rate and annualized salary is based on 32 hours per week

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EXHIBIT B
CCC Sheriff 7 Step Plan
Rev 08-2025

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Step	Job Title	Annual Pay	Hourly	Spread
1	Non Certified Deputy	$ 69,967.90	$ 33.64	
2	Non Certified Deputy	$ 72,067.04	$ 34.65	3.00%
3	Non Certified Deputy	$ 74,229.01	$ 35.69	3.00%
4	Non Certified Deputy	$ 76,455.87	$ 36.76	3.00%
5	Non Certified Deputy	$ 78,749.68	$ 37.86	3.00%
6	Non Certified Deputy	$ 81,111.47	$ 39.00	3.00%
7	Non Certified Deputy	$ 84,015.04	$ 40.17	3.00%

Step	Job Title	Annual Pay	Hourly	Spread
1	Certified Deputy	$ 90,902.53	$ 43.70	
2	Certified Deputy	$ 93,629.60	$ 45.01	3.00%
3	Certified Deputy	$ 96,438.49	$ 46.36	3.00%
4	Certified Deputy	$ 99,331.64	$ 47.76	3.00%
5	Certified Deputy	$ 102,311.59	$ 49.19	3.00%
6	Certified Deputy	$ 105,380.94	$ 50.66	3.00%
7	Certified Deputy	$ 108,542.37	$ 52.18	3.00%

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: David Danielson, Chief Building Official
Subject: Consideration of R-24-19: a Resolution for Adoption of the 2024 International Code Series to Include the Building, Residential, Plumbing, Mechanical, Energy Conservation, Fuel Gas, Existing Building, Fire, and Swimming Pool and Spa Codes, and for the Adoption of the 2025 Colorado Wildfire Resiliency Code Effective in the Unincorporated Area of Clear Creek County

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RECOMMENDATION

Staff recommends approval of Resolution R-24-19, a Resolution for Adoption of the 2024 International Code Series to Include the Building, Residential, Plumbing, Mechanical, Energy Conservation, Fuel Gas, Existing Building, Fire, and Swimming Pool and Spa Codes, and for the Adoption of the 2025 Colorado Wildfire Resiliency Code Effective in the Unincorporated Area of Clear Creek County.

BACKGROUND

On March 3, 2026, County staff presented proposed Building Code amendments, which included the 2024 International Code Series and the 2025 Colorado Wildfire Resiliency Code. The proposal set the limits of applicability of the Code and describes how the Code is to be applied and enforced.

The State of Colorado passed SB25-142, which requires all jurisdictions adopt a minimum wildfire resiliency code within nine (9) months of the Colorado Wildfire Resiliency Code Board adopting a wildfire resiliency code. Because of these State requirements, the County must adopt a Wildfire Resiliency Code no later than April 1, 2026.

Staff is also recommending removal of a weakening code amendment of the International Residential Code (IRC) that currently does not require all new dwellings to be provided with an automatic sprinkler system. Under this recommendation, new dwellings would be required to install automatic sprinkler systems per IRC Code text. These systems may be designed prescriptively per section 2904 of the IRC or in accordance with National Fire Protection Agency Standard 13D.

A study of the data from the National Fire Incident Reporting System indicates these fire suppression systems are associated with an 80% reduction in fire related death and injury. These systems also control or extinguish fires in roughly 90% of incidents in which they activate.

ANALYSIS

In support of state requirements and decisions made by the Colorado Wildfire Resiliency Code Board, Building Department staff recommends adoption of the 2024 International Code Series and the 2025 Colorado Wildfire Resiliency Code with amendments.

Board Agenda Background

CONCLUSION:

Adoption of the proposed amendments, including the 2024 International Code Series and the 2025 Colorado Wildfire Resiliency Code, will ensure the County remains in compliance with state requirements, and strengthens wildfire preparedness and prevention. Data shows these updated code amendments will improve life-safety, reduce fire related deaths and injury as well as property loss.

ATTACHMENTS:

1. Resolution R-26-19
2. 2024 Redline Building Code Amendments
3. Tracked Changes to Building Code Amendments
4. Evergreen Fire Protection District Letter of Support
5. Clear Creek Fire Authority Code Adoption Letter of Support

R-26-19

RESOLUTION FOR ADOPTION OF THE 2024 INTERNATIONAL CODE SERIES TO INCLUDE THE BUILDING, RESIDENTIAL, PLUMBING, MECHANICAL, ENERGY CONSERVATION, FUEL GAS, EXISTING BUILDING, FIRE, AND SWIMMING POOL AND SPA CODES, AND FOR THE ADOPTION OF THE 2025 COLORADO WILDFIRE RESILIENCY CODE EFFECTIVE IN THE UNINCORPORATED AREA OF CLEAR CREEK COUNTY

WHEREAS, C.R.S. §§ 30-28-201 and 204 authorize boards of county commissioners to adopt and amend a county building code after public hearing; and

WHEREAS, the Board of County Commissioners adopted a building code for all of Clear Creek County, in 1964; the building code has been updated from time-to-time, most recently by the adoption of Resolution R-24-82 on December 17, 2024, adopting the 2021 International Code Series; and

WHEREAS, the 2021 Codes have since been updated in the 2024 International Building, Residential, Plumbing, Mechanical, Energy Conservation, Fuel Gas, Existing Building, and Swimming Pool and Spa Code, and 2025 Colorado Wildfire Resiliency Code which will be referred to as the 2024 International Code Series; and

WHEREAS, the County Building Official has recommended the adoption of the 2024 International Code Series, with the additional modifications for local conditions set forth herein; and

WHEREAS, the Board of County Commissioners has given notice by at least one publication in a newspaper of general circulation in the County at least fourteen days prior to the hearing, stating the time and place of the hearing at which the proposed codes could be inspected; and

WHEREAS, the Board of County Commissioners, following a public hearing on March 17, 2026, finds that the proposed code adoption will promote the public health, safety and welfare, and should be adopted.

NOW THEREFORE BE IT RESOLVED, that the Clear Creek County Board of County Commissioners hereby adopts the 2024 International Code Series, attached hereto, for the purpose of regulating the future construction or alteration of dwellings, buildings and structures within the unincorporated areas of Clear Creek County with the deletions and additions as noted herein.

BE IT FURTHER RESOLVED, that this resolution is hereby adopted and shall be in full force and effect upon its adoption and shall apply to all permits applied for after March 17, 2026.

BE IT FURTHER RESOLVED that resolution R-24-82 is hereby rescinded upon the adoption of this resolution.

ADOPTED this 17th day of March, 2026, at a regularly scheduled meeting of the Clear Creek County Board of County Commissioners.

_____
Rebecca Lloyd, Chair

_____
Jodie Hartman-Ball, Commissioner

ATTEST:

_____
George Marlin, Commissioner

_____
Deputy Clerk and Recorder for
Brenda L. Corbett
Clear Creek County Clerk and Record

2024 CLEAR CREEK COUNTY INTERNATIONAL CODE SERIES AND 2025 COLORADO WILDFIRE RESILIENCY CODE AMENDMENTS

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EXHIBITS

Exhibit 1 – Special Wind Region Map for Clear Creek County (See page 46)
Exhibit 2 –Clear Creek County Roadway Design and Construction Manual Chapter 4 (attached)
Exhibit 3 – Clear Creek County Best Management Practices Manual (attached)

2024 INTERNATIONAL RESIDENTIAL CODE

CHAPTER 1 ADMINISTRATION

SECTION R101 – TITLE, SCOPE AND PURPOSE

Delete section 101.1 Title and replace with the following:

R101.1 Title. These provisions shall be known as the Residential Code for One- and Two-Family Dwellings of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION R102 – APPLICABILITY

Add the following section:

R102.4.3 All references to the International Property Maintenance Code in this code shall be deleted.

SECTION R103 – DEPARTMENT OF BUILDING SAFETY

Delete R103.1 in its entirety and replace with the following:

R103.1 Creation of Enforcement Agency. The Building Department is hereby created and the official in charge thereof shall be known as the building official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION R105 – PERMITS

Add section R105.1.2 License Required:

105.1.2 License Required. All persons undertaking work which requires a permit as provided in Section 105, or seeking to obtain that permit from the County, are required to have a currently valid contractor's license issued from Clear Creek County Planning and Building Services Department. That license shall have been issued by the County in accordance with the provisions of the Clear Creek County Contractors Licensing Requirements and the Contractor Licensing Regulations adopted by the Board of County Commissioners, and any regulations subsequently adopted by the Board of County Commissioners, as said resolution and regulations may be amended from time to time by said Board.

Exceptions:

1. The owner of a single-family dwelling shall be allowed to secure a permit to construct, alter, or repair said home provided the following conditions are met:

   A. The homeowner currently occupies the dwelling or will occupy the residence once the construction has been completed.

   B. The homeowner undertakes the work themselves.

2. The Building Official may waive the provisions of this section where it can be established that no license exists for the installation, alteration, or repair of a certain type of work requiring a permit, or due to other unique circumstances.

Delete Number 1 under "Building" and replace with the following:

R105.2 Work Exempt from Permit

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15m^2) and the structure is located more than 50 feet (15240 mm) from the nearest adjacent structure.

Add new Numbers 11 & 12 under "Building" as follows:

11. Non-permanent coverings consisting of pole and fabric.
12. All pre-manufactured single unit detached shipping containers used for storage only which have not been modified.

Add the following as end of **R105.3.1**:

The building official is authorized to deny a permit to an applicant or property not meeting the provisions of this code, to any person who has an outstanding failure to appear in court pertaining to a county related violation, a person or property with associated outstanding permit(s) or fees related to any county application or permit, or to any person or property not in compliance with any other county regulations. Permits may be issued once conditions set by the building official are satisfied.

Delete Section R105.5 in its entirety and replace with following:

R105.5 Expiration. Every permit issued by the building official under the provisions of this code shall expire by limitation and become null and void if more than 180 days pass before an initial inspection or 180 days pass between inspections after the issuance of such permit. Work must be pursued and completed in good faith to complete construction in a timely manner as determined by the building official.

R105.5.1 Renewal Permit. A renewal for a permit may be applied for when a permit has expired and a full fee will be assessed unless the permit has received approvals from the building official through all of the rough inspections and provided no changes have been made to the original plans and specification, then a 50% fee will be charged. The rough inspections include all framing, mechanical and plumbing. The renewal will be subject to the provisions of the currently adopted code unless technically infeasible. Permits may only be renewed if not more than 1 year has elapsed since permit expiration.

R105.5.2 Permit Extension. Any permittee holding an unexpired permit may apply for an extension of the time to complete the work and inspections under that permit when the permittee is unable to complete the work within the time required by Section R.105.5 due to circumstances beyond the control of the permittee. The extension shall be requested in writing prior to the expiration of the permit and justifiable cause for the extension shall be demonstrated. The building official is authorized to grant an extension of time for a period of 180 days.

Add the following Sections;

R105.10 Transfer of Permits. An unexpired permit may be transferred from one party to another upon written application to the building official by the new owner of the property or his/her authorized agent, provided there is no change in the plans and specifications. Documentation of the change in ownership must be provided by the new owner. No change shall be made in the expiration date of the original permit. A fee is required to transfer the permit, please refer to the building permit fee schedule.

R105.10.1 Owner assuming Role as Contractor. The building official may allow the property owner to assume the role of contractor at any time on an active permit by providing the building official with a letter listing the permit number, the address of the project and stating that the original contractor is no longer in the employment of the owner, provided that no change of ownership has occurred since the permit was issued. This change may be done at no charge. No change shall be made in the expiration date of the original permit.

SECTION R106 – CONSTRUCTION DOCUMENTS

Delete R106.1 and replace with the following:

R106.1 Submittal documents. Submittal documents consisting of *construction documents*, and other data shall be submitted in two or more sets, or in a digital format where allowed by the *building official*, with each application for a *permit.* The *construction documents* shall be prepared by a *registered design professional*. Where special conditions exist, the *building official* is authorized to require additional *construction documents* to be prepared by a *registered design professional*.

Exceptions:

1. The *building official* is authorized to waive the submission of *construction documents* and other data not required to be prepared by a *registered design professional* if it is found that the nature of the work applied for is such that reviewing of *construction documents* is not necessary to obtain compliance with this code.
2. Construction documents are not required to be prepared by a *registered design professional* where the *building official* has determined that the scope and nature of the proposed work does not warrant such preparation.

SECTION R108 – FEES

Add the following sentence to **R108.1 Payment of Fees**:
Any reduction or waiver of a building permit fee must be approved by the Board of County Commissioners.

Add the following at the end of **R108.2 Schedule of Permit Fees**:
The fee for each permit shall be paid to the Building Department as set forth in the building permit fee schedule.

Add the following at the end of **R108.3 Building permit valuations**:
The determination of valuation under any of the provisions of this code shall be made by the building official.

Add the following sections:
R108.3.1 Building Permit Valuations.
Valuation may be based on the annual average cost of construction as published in the Building Safety Journal or the cost of construction provided, whichever is higher. No adjustment will be made by the regional modifier.

R108.4.1 Temporary Certificate of Occupancy. There shall be a fee for a Temporary Certificate of Occupancy as set forth in the building permit fee schedule.

R108.4.2 Reinspection. A Reinspection Fee may be assessed for each inspection or reinspection when the portion of work for which inspection is called for is not complete or when corrections called for are not made. Reinspection Fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from the plans requiring the approval of the building official. A reinspection fee may be assessed for failure to post a readily visible address. To obtain a reinspection, the

applicant shall pay the reinspection fee in accordance with the building permit fee schedule. In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until the required fees have been paid.

Add the following sentence:

R108.5 Refunds.

The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected. The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code. The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment.

Delete 108.6 and replace with:

R108.6 Work commencing before permit issuance: In addition to the required permit fee, any person who commences work on a building, structure, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an Investigation Fee in an amount equal to the permit fee.

SECTION R109 – INSPECTIONS

Add the following to R109.1.2:

The following tests are required.

-Gas line, hydronic piping, and fire-sprinkler test shall be observed by the building official to ensure compliance with this code.

-Backflow prevention devices where required shall be tested by a qualified individual who shall submit a test report to the building official.

-Building sewer, drain waste vent, ducts, shower pan, and water distribution lines shall be tested in accordance with this code by the installer, observation by the building official nor a test report shall be required.

SECTION R110 – CERTIFICATE OF OCCUPANCY

Add sections:

R110.3.1 Conditions.

A Temporary Certificate of Occupancy may be issued when, but not limited to, the following components of a project are complete and approved by the building official:

1. Kitchen operative;

2. One full bathroom with toilet, sink and tub or shower is operative as per the approved plans;
3. All smoke alarms and carbon monoxide detectors installed per code and passed final inspection;
4. The following items are complete:
    a) Address number(s) posted;
    b) Handrails at stairways;
    c) Guards (guardrails);
    d) Decks/landings where required for compliant exit;
    e) Separations between the garage and house complete, with an approved door per IRC;
5. Heat source for dwelling is operable;
6. Final electrical approval;
7. Final OWTS or confirmation of connection to public sanitation system;
8. Final on all Site Development permits or approval by the Site Development Inspector.
9. All construction or other measures required for Wildfire Hazard Mitigation. See the building permit fee schedule for Temporary Certificate of Occupancy fee.

R110.4.2 Validity. Temporary certificate of occupancy shall be valid for 30 days. Extensions may be granted as allowed by the building official. Fees shall apply as set forth building permit fee schedule. If the TCO expires prior to certificate of occupancy being issued, temporary certificate of occupancy fees will be due for the period of time up to the certificate of occupancy issue date.

CHAPTER 2 DEFINITIONS

SECTION R202 - DEFINITIONS

Add the following definition:

SLEEPING ROOM. "Sleeping Room" (Bedroom) Any enclosed habitable space within a dwelling unit, which complies with the minimum room dimension requirements of IRC Sections R312 and R313 and contains a closet, an area that is useable as a closet, or an area that is readily convertible for use as a closet, and meeting other code requirements for a sleeping room. Living rooms, family rooms and other similar habitable areas that are so situated and designed to clearly indicate these intended uses, shall not be interpreted as sleeping rooms.

CHAPTER 3 BUILDING PLANNING

SECTION R301 – DESIGN CRITERIA

Amend the Table R301.2(1) as follows:

Table R301.2(1) – Climatic and Geographic Design Criteria

GROUND SNOW LOAD^	WIND DESIGN				SEISMIC DESIGN CATEGORY[f]	SUBJECT TO DAMAGE FROM			ICE BARRIER UNDERLAYMENT REQUIRED[h]	FLOOD HAZARDS[g]	AIR FREEZINGINDEX[i]	MEAN ANNUAL TEMP[j]
	Speed[d] (mph)	Topographic effects[k]	Special wind region[l]	Windborne debris zone[m]		Weathering[a]	Frost line depth[b]	Termite[c]				
Varies-See Table	Varies-See Section R301.1(4).1	Yes	Yes	No	B	Severe	42"	None to slight	Yes	2012 (FEMA)Map	2500	40°F
MANUAL J DESIGN CRITERIA[n]												
Elevation		Altitude correction factor[e]	Coincident wet bulb	Indoor winter design relative humidity	Indoor winter design dry-bulb temperature			Outdoor winter design dry-bulb temperature		Heating temperature difference		
Varies		Varies	60°F	20%	68°F			(-10°F)		78°F		
Latitude		Daily range	Summer design gains	Indoor summer design relative humidity	Indoor summer design dry-bulb temperature			Outdoor summer design dry-bulb temperature		Cooling temperature difference		
40°N		High	Varies	50%	75°F			90°F		15°F		

Add the following:

R301.2.3 Snow Loads. The roof structure shall be designed for snow loads as determined by the Snow Load Design in Table R301.2.3. No snow load reductions shall be allowed.

Basic Snow Load Design Table R301.2.3 Roof Snow Loads Required in Pounds per Square Foot (PSF)

Elevation (feet above sea level)	Basic Snow Load (PSF)	Elevation (feet above sea level)	Basic Snow Load (PSF)
6,500 to 6,750	35	9,001 to 9,250	85
6,751 to 7,000	40	9,251 to 9,500	90
7,001 to 7,250	45	9,501 to 9,750	95
7,251 to 7,500	50	9,751 to 10,000	100

7,501 to 7,750	55	10,001 to 10,250	110
7,751 to 8,000	60	10,251 to 10,500	120
8,001 to 8,250	65	10,501 to 10,750	128
8,251 to 8,500	70	10,751 to 11,000	135
8,501 to 8,750	75	11,001 to 11,500	150
8,751 to 9,000	80		

Add the following:

Figure R301.2(2) Determination of Wind Loads: Figure R301.2(2) identifies parts of Clear Creek County to be in a Special Wind Region. The basic wind speed is 105 MPH Exposure C excepting the areas identified as Special Wind Region, which are determined to be 110 MPH Exposure C. See Exhibit 1 on page 51 containing the Special Wind Region Map attached hereto and incorporated herein.

TABLE R301.5 - Minimum Uniformly Distributed Live Loads

Add footnote (j) to live load requirement for Balconies(exterior) and decks as follows:

j. Total load design shall include Basic Snow Load per Table R301.2.3 and the dead load.

Delete Section R301.6 Roof Load in its entirety and replace with the following:

R301.6 Roofs. Roofs shall be designed to the snow load indicated in Table R301.2.3, plus the dead load.

SECTION R302 – FIRE-RESISTANT CONSTRUCTION

Delete Section R302.6 in its entirety and replace with the following:

R302.6 Dwelling/garage fire separation. The garage shall be separated from the residence and its attic area by not less than 5/8" Type X Gypsum wallboard or its equivalent applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the assembly shall also be protected by not less than 5/8" Type X Gypsum wallboard or its equivalent. Openings in garage walls shall comply with section R302.5.

Delete Table R302.6 and replace with the following:

TABLE R302.6 - Dwelling/Garage Separation

Separation	Material
From the residence and attics	Not less than 5/8" Type X Gypsum wallboard or its equivalent applied to the garage side

From all habitable rooms above the garage	Not less than 5/8” Type X Gypsum wallboard or its equivalent applied to the garage side
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 5/8” Type X Gypsum wallboard or its equivalent
Garages located less than 3 feet from a dwelling unit on the same property	Not less than 5/8” Type X Gypsum wallboard or its equivalent applied to the interior side of exterior walls that are within this area

Delete Section R302.7 and replace with the following:

R302.7 Under-stair protection. Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with not less than 5/8” Type X Gypsum wallboard or its equivalent.

SECTION R311 - CARBON MONOXIDE ALARMS

R311.2.2 Alterations, repairs and additions. Delete all exceptions.

CHAPTER 4 FOUNDATIONS

Delete the following entirely:

Sections R403.2 Footings for wood foundations.

SECTION R404 – FOUNDATIONS AND RETAINING WALLS

Delete the following entirely:

Section R404.2 Wood foundations.

Add the following section:

R404.2 Wood foundations shall not be allowed.

CHAPTER 9 ROOF ASSEMBLIES

SECTION R902 – ROOF CLASSIFICATION

Delete Section R902.1 (do not delete exceptions) and replace with the following:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. All roofing material shall be Class A or Class B roofing materials may be used only if the material has been tested with a fire-resistive assembly and the assembly has received a Class A rating and the material is installed exactly as specified in the Class A rated assembly.

Delete the following section:
R902.2 Fire-retardant-treated shingles and shakes.

Add the following section:
R902.2 Wood shingles and shakes shall not be permitted regardless if they are fire-retardant-treated.

CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS

SECTION M1307 – APPLIANCE INSTALLATION

Add the following:
M1307.1.1 Liquid Propane Gas (LPG) Appliance. LPG appliances shall not be installed in a pit, basement, or crawl space where unburned fuel may accumulate unless an approved sensing device, with a solenoid shut off on the gas line is installed and a daylighted drain is installed. If the appliance is installed in a crawl space it must have a pad poured for the daylighted drain in addition to the above mitigation. The pad shall be a minimum of 8'x 8'.

CHAPTER 14
HEATING AND COOLING EQUIPMENT AND APPLIANCES

SECTION M1401 – GENERAL

Add the following:
M1401.1.1 Unvented Room Heaters. Unvented room heaters are prohibited in one- and two-family dwellings and in townhouses. All references to unvented room heaters in the 20242024 IRC are hereby deleted.

CHAPTER 24 FUEL GAS

SECTION G2415 – PIPING SYSTEM INSTALLATION

Delete G2415.12 and 2415.12.1 and replace with following:

G2415.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches below grade.

SECTION G2420 – SHUTOFF VALVES

Add the following:

G2420.1.4 (409.1.4) Auxiliary Emergency Shutoff Valve. An auxiliary emergency shutoff valve (brass-key operated type) is required for gas fireplace appliances and located adjacent to appliance, not less than 12" from appliance, for emergency isolation purposes, regardless of if the appliance provides a similar isolation valve.

SECTION G2445 (621) – UNVENTED ROOM HEATERS

Delete Section G2445 (621) Unvented Room Heaters in its entirety and replace with the following:

G2445.1 Unvented Room Heaters. Unvented room heaters are prohibited and all references to unvented room heater in the 2024 IRC and Code Series are deleted.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS

SECTION P2603 – STRUCTURAL AND PIPING PROTECTION

Delete 2603.5.1 Sewer depth in its entirety and replace with the following:

P2603.5.1. Sewer Depth. Building sewers that connect to private sewage disposal systems shall be in alignment with the Environmental Health Department OWTS Regulation.

ADDOPTED APPENDICIES

The following Appendix Chapters to the 2024 International Residential Code are hereby adopted and enforced by Clear Creek County, Colorado:

ADD AND ADOPT APPENDIX E AS FOLLOWS:

APPENDIX CHAPTER E UNSAFE BUILDINGS

SECTION E101 – UNSAFE BUILDING OR STRUCTURES

E101 Unsafe Building or Structures. All buildings or structures regulated by this code, which are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human life are, for the purpose of this section, unsafe. Any use of buildings or structures constituting a hazard to safety, health or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is, for the purpose of this section, an unsafe use. Parapet wall, cornices, spires, towers, tanks, statuary and other appendages or structural members which are supported by, attached by, attached to, or a part of a building and which are in deteriorated condition or otherwise unable to sustain the design loads which are specified in this Code are hereby designated as unsafe building appendages.

E102 Public Nuisances. All such unsafe buildings are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures specified in this chapter. As an alternative, the building official may institute any other appropriate action to prevent, restrain, correct or abate the violation, at the expense of the owner.

E102.2.1 Notice to Owner. The building official shall examine or cause to be examined every building or structure or portion thereof reported as dangerous or damaged and, if such is found to be an unsafe building as defined in this section, the building official shall give to the owner of such building or structure written notice stating the defects thereof. This notice may require the owner or person in charge of the building premises, within 48 hours, to commence either the required repairs or improvements or demolition and removal of the building or structure or portion thereof, and all such work shall be completed within 90 days from the date of notice unless otherwise stipulated by the building official. If necessary, such notice shall also require the building, structure or portion thereof to be vacated forthwith and not re-occupied until the required repairs and improvements are completed, inspected, and approved by the Building Official.

Proper service of such notice shall be by personal service upon the owner of record, or such service may be made upon said owner by certified mail; provided that, if such notice is by certified mail, the designated period within which said owner or persons in charge is required to comply with the order of the building official shall begin as of the date delivery is attempted by the Postal Service. If no address can be found for the owner of said property, the notice may be served by publishing a copy of the notice once in a newspaper of general circulation within Clear Creek County, setting forth the address of the premises involved, if any, and the legal description of said premises and stating defects complained of and the time in which said defects shall be

corrected. Said notice shall be considered served three (3) days after the publication of said newspaper.

E102.2.2 Posting of Signs. The building official shall cause to be posted at each entrance of such building a notice to read: "DANGER, KEEP OUT. THIS STRUCTURE IS UNSAFE FOR OCCUPANCY." Such notice shall remain posted until the required repairs, demolition or removals are completed. Such notice shall not be removed without permission of the building official, and no person shall enter the building except for the purpose of making the required repairs or demolishing the building.

E102.2.3 Right to Demolish. In case the owner shall fail, neglect, or refuse to comply with the notice to repair, rehabilitate, or to demolish and remove said building or structure or portion thereof, the Board of County Commissioners may order the owner of the building prosecuted as a violator of the provisions of the code and may order the building official to proceed with the work specified in such notice. A statement of the cost of such work will be transmitted to the County Commissioners who shall cause the same to be paid and levied against the property.

ADOPT APPENDIX CHAPTER BE AS WRITTEN RADON CONTROL METHODS

ADOPT APPENDIX CHAPTER NB
AS WRITTEN SOLAR-READY PROVISIONS-DETACHED ONE-AND TWO-FAMILYL DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES)

ADD AND ADOPT APPENDIX CHAPTER X AS FOLLOWS:

APPENDIX X

GRADING AND EXCAVATION

SECTION X101

GENERAL

X101.1 Purpose

The purpose of these regulations is to:

1. Protect public safety, health, and welfare by regulating grading & excavation on private property;
2. Reduce increases in erosion and sedimentation over pre-development conditions; and

3. Ensure reclamation of disturbed land.

X101.2 Scope

This chapter sets forth standards and regulations to control excavation, grading, and earthwork, including fills, embankments, and retaining walls; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading & excavation construction.

X101.3 Authority

Clear Creek County is authorized by Colorado State Statutes to adopt and enforce provisions of a building code in accordance with the public health, safety, morals, and general welfare (C.R.S. §§ 30-28 201, 30-28-203, 30-28-204, 30-28-109, and 30-28-210), to plan for and regulate the use of land so as to provide planned and orderly use of land and protection of the environment in a manner consistent with constitutional rights (C.R.S. § 29-20-101(1)(h)); plan for and regulate the uses of land for trade, industry, recreation, or other purposes (C.R.S. § 30-28-111); and to provide for enforcement through necessary guarantees, alterations, maintenance or use of property (C.R.S. §§ 30-28-114, 30-28-124, and 30-28-137).

SECTION X102

GRADING AND EXCAVATION PERMITS

X102.1 General

Grading and Excavation Permits (grading permits) are intended to cover all earth disturbing activity located within a project site such as road construction, site work, and installation of utilities.

X102.2 Grading and Excavation Permit Requirement

Grading permits must be obtained whenever a property owner, developer, contractor, or other individual proposes to conduct earth-disturbing activity of more than 800 square feet of surface area and/or more than 10 cubic yards of earth material; construct a driveway; and/or construct a retaining wall over 4 feet in height, except as exempted in Section X104.

X102.3 Types of Grading Permits Single-Family or Duplex

1. Driveway Permit - Driveway permits must be obtained whenever an individual proposes to construct, modify and/or connect a driveway to an existing public or private roadway in unincorporated Clear Creek County. All work undertaken to construct or improve driveways shall conform to the design and construction standards contained in the *Roadway Design and Construction Manual*.
2. Minor Grading & Excavation Permit - Minor grading permits are required for projects with proposed earth disturbance of more than 800 square feet of surface area or 10 cubic yards of cut/fill volume, and are intended for use on developed single-family or duplex residential lots for building additions and accessory structures (excluding garages) with a footprint of

more than 400 square feet and less than 800 square feet and minor grading projects that do not involve structures.

3. Major Grading & Excavation Permit - Major grading permits are intended for use on projects involving the construction of single-family and duplex residences, garage additions of any size; and building additions with a footprint of more than 800 square feet. All projects that require a major grading permit shall have a driveway that is compliant with current driveway standards or shall be required to obtain a Driveway Permit to construct or improve access in order to meet current driveway standards.

Multi Family, Commercial, Industrial

All earth disturbing activities involving earth disturbance of more than 800 square feet of surface area and/or create/modify a connection to a public or private roadway in unincorporated Clear Creek County for multi-family, commercial, recreational, institutional, and/or industrial land uses require a Driveway/Grading & Excavation Permit and shall conform to the design and construction standards contained in the *Roadway Design and Construction Manual* and grading & excavation standards.

Retaining Wall Permit

All retaining walls over 4 feet in total height, whether in a single line or multiple tiers, require a Retaining Wall Permit and shall be engineered and certified by an engineer prior to final approval. Total retaining wall height is measured from the ground surface at the toe of the lowest tier of the retaining wall system to the top of highest tier of retaining wall system. In order for retaining walls to be considered separate and act independently of each other, the retaining walls shall be separated by a horizontal distance of more than twice the height of the taller of either retaining wall.

X102.4 Grading Permit Procedures

Applications for grading permits must be submitted 15 calendar days prior to commencement of earth disturbing activity, unless the activity is exempt from permit requirements per Section X104. The Site Development Department is responsible for review and action on grading permits.

Approval shall be granted only if the proposed activity meets the standards and regulations in these regulations, the required fee has been paid, and if required, a financial guarantee has been provided in accordance with Section X102.4.4. Approval of a grading permit may be accompanied by conditions deemed reasonable by the Site Development Department to ensure protection of public health, safety, and welfare and compliance with these regulations. A grading permit must be signed by the County Engineer for it to be approved.

This section states procedures and requirements associated with grading permits for the following:

1. Submittal and review of applications;
2. Expiration of applications;
3. Expiration of permits;
4. Performance Guarantees; 5. Supervision of work; and
6. Inspections.

X102.4.1 Submittal Requirements for Grading Permits

The plans and specifications shall be prepared and signed by a Professional Engineer licensed by the State of Colorado to prepare such plans or specifications. Plans shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations.

The following information shall be submitted with any application for a Grading and Excavation Permit, unless specifically waived by the County Engineer. Applications that do not include the information and material below shall be deemed incomplete and may not be accepted by the Site Development Department.

1. Permit fees as required by resolution of the Board of County Commissioners.
2. Written Material:
    A. Application Form
    B. Zoning Verification Form
    C. Construction Site Sanitation Agreement
    D. Landowner Authorization Form (if applicable)
    E. Proof of Legal Access (if applicable)
        i. If the driveway crosses neighboring properties then legal, recorded easements are required to be submitted.
        ii. If access is within an easement or shown on a plat, identify and verify proposed access is within the recorded easement.
        iii. If an un-platted common driveway is proposed, submit an easement signed by all affected property owners.
3. Plans and Specifications
    A. Legal description (i.e. subdivision name, lot, block, filing)
    B. Locations of all existing and proposed improvements
        i. Include a statistical inventory showing what is existing and what is proposed of the site coverage (impervious and building), open space, snow storage, etc.
    C. Property boundaries, lot dimensions, easements, and compliance with all plat notes
    D. Setbacks – Clearly show setbacks from all property lines. If there is a building envelope and/or disturbance envelope, then show and ensure that the structure(s) is within those designated areas.
    E. Limits of Disturbance
        i. Clearly show area of proposed disturbance
        ii. Include any temporary construction access iii. Include the total square footage of proposed disturbance iv. Estimate the quantities of excavation and fill, including quantities to be moved off and on site.
    F. Utilities – Show existing and proposed location of all utilities and connections including utility boxes/poles for electric, gas, cable, telephone, sewer and water, including On-site Wastewater Treatment Systems and wells

G. Precise Grading Plans
    i. Engineering scale of 1:10 or 1:20
    ii. Show existing and proposed topography at 2-foot contour intervals in accordance with standard drafting practices.
    iii. If the topography of the proposed disturbance area(s) has a greater than 10% slope, a topographic survey prepared and stamped by a registered land surveyor shall be submitted.
    iv. Areas with slopes greater than 30% intended to be used for roads, driveways or structures shall be approved for use by a geologist or engineer in a soils report.

H. Grading and Construction Specifications
    i. Maximum 1½:1 slope allowed on all finished contours or retain.
    ii. Retaining wall maximum = 4 feet without an engineered design (submit cross-section diagram for all proposed retaining walls). iii. Retaining walls > 4 feet in height require design and certification by a Professional Engineer licensed in the State of Colorado.

I. Subsurface and Surface Drainage Plans
    i. Show foundation drain location and daylight.
    ii. Show all existing and proposed culverts with invert elevations and other drainage details.

J. Streams, intermittent streams and drainage ditches
K. Trail(s)
L. Significant natural or historical features
M. Water Quality Control Plan as required to show compliance with Section X103.5.2
N. Revegetation Plan as detailed in Section X103.5.3

4. Supporting Material
    A. Boundary and Topographical Survey
    B. Geotechnical Engineering or Engineering Geology Report

Professionals Responsible for Preparation of Plans and Reports

The qualified professionals responsible for the preparation of grading, drainage, geotechnical, erosion, and water quality control plans and specifications shall have the following responsibilities.

Civil Engineer

Grading plans and specifications shall be prepared and signed by a Professional Engineer licensed in the State of Colorado having knowledge and experience in civil engineering. It is the responsibility of the civil engineer or other qualified professional to incorporate all recommendations from the geotechnical report into the grading, drainage, erosion, and water quality control plans and specifications.

Surveyor

Surveys shall be prepared and signed by a Professional Land Surveyor licensed in the State of Colorado.

Survey Requirements

A boundary and topographic survey completed within 5 years of the permit application with the following minimum information shall be submitted with all grading permit applications in which disturbance of slopes greater than 10% is proposed.

1. The minimum scale of the survey shall be 1 inch to 60 feet or larger. Enough sheets shall be used to accomplish this end. Acceptable larger scales are 1 inch to 10 feet, 20 feet, 30 feet, 40 feet, or 50 feet. Scales of 1 inch to 100 feet or 1 inch to 200 feet may be allowed by the Site Development Department for survey documents with large lots and tracts if it is legible.
2. The survey shall include the date of the survey, north arrow, and written and graphic scale on each sheet.
3. Existing topography at 2-foot contour intervals shall be shown in areas of all proposed disturbance.
4. The width shall be shown for all public rights-of-way.
5. The traveled surface of each existing street/road shall be shown.
6. All easements shall be clearly labeled, identified, dimensioned and tied to reference points within the site and shown by fine short dashed lines. Overlapping or crossing easements shall vary the dash length slightly to improve readability. Existing easements shall bear notation of dedication of conveyance by recordation information. If existing easement bearings are rotated due to a change in basis of bearing, a note shall be added to the survey indicating such. If any easement already of record cannot be definitely located, a statement of the existence, the nature thereof and its recorded reference shall be placed in the note section. Easement shall be designated, and the disposition thereof indicated in the note section.
7. Existing improvements including building structures, fences, above-ground utilities, drainage improvements, well, and septic systems shall be shown.
8. All property boundaries with distances and bearings shall be shown.

Geotechnical Engineer or Professional Geologist

The geotechnical engineer's or the professional geologist's area of responsibility shall include, but need not be limited to, preparation of geotechnical reports analyzing soil and geological conditions on site and recommending how ground is to be prepared to receive fills, how fill slopes are to be designed and compacted and the design of buttress fills and cut slopes to be allowed with respect to these conditions. The geotechnical engineer or engineering geologist shall also include hydrological conditions of the site in this report and the design of subdrains or other groundwater drainage device, if needed, and how surface drainage is to be controlled.

Geotechnical Engineering Report

If slopes in excess of 3:1 (33.3%) are proposed to be disturbed, then a geotechnical engineering report for slope stability, prepared by a Professional Engineer licensed in the State of Colorado or a professional geologist with experience in geotechnical engineering, is required unless this requirement is waived by the County Engineer. Roadway embankment slopes shall be included in the slope analysis of a property, and disturbance

of roadway embankments may be grounds for the requirement of a slope stability report, depending on the extent and severity of the proposed impacts.

The geotechnical engineering report shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinion on the adequacy for the intended use of sites to be developed by the proposed excavation/grading, as affected by geologic factors. The geotechnical engineering report for slope stability shall also include recommendations and information necessary to protect the area from construction induced instability, including limiting erosion potential, stabilizing fill placement, identifying lateral earth pressures (active, passive, and equivalent fluid pressure) for use in the design of foundations and retaining walls, controlling runoff, and methods of anchoring structures proposed on the property. The slope stability report shall reflect all proposed improvements. Any changes to the proposed plans may necessitate follow-up reviews and amendments to the report by the geotechnical engineer.

In circumstances where slopes of 3:1 or greater exist but there is little to no likelihood of slope instability being induced be development, the County Engineer may waive the requirement for a geotechnical engineering report. If the County Engineer chooses not to waive this requirement, then permit review will be ceased until the report is provided.

The submittal of any proposal involving development of a lot with steep slopes shall include a slope analysis plan sheet, graphically depicting the location of steep slopes and those slopes proposed to be disturbed.

X102.4.2 Expiration of Applications

Applications received in which no permit has been issued within 180 days of the date of application shall expire. Any plans submitted for review may thereafter be returned to the applicant or destroyed by the Site Development Department.

The Site Development Department may extend the time for action by the applicant for a period not to exceed 180 calendar days upon written request by the applicant if circumstances beyond the applicant's control have prevented action on the grading permit application from being taken.

X102.4.3 Expiration of Permits

Each grading permit shall be valid for one year from the date issued. If satisfactory evidence that unusual difficulties have prevented the work from being completed within one year, the Site Development Department may grant extensions of time necessary to complete the work.

If a Building Permit associated with the work to be completed by a grading permit is issued for the same site, the expiration of the grading permit may be tied to the Building Permit expiration date.

X102.4.4 Performance Guarantees

The Site Development Department may require performance guarantees in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions, drainage and erosion devices will be constructed, disturbed areas will be revegetated and any adverse impacts of such work is mitigated.

All performance guarantees shall include an executed Security Agreement approved by the Clear Creek County Board of County Commissioners and shall be either:

1. In cash, or
2. By Letter of Credit issued by a bank located and physically doing business in the State of Colorado.

The performance guarantees shall be in the amount of 125% of the estimated cost of the proposed scope of work.

The work will be deemed complete for purposes of starting the warranty period upon final inspection approval by the Site Development Inspector and delivery of an acceptable as-built drawing to the Site Development Department.

A letter of credit performance guarantee will be drawn on if the conditions for its release are not satisfied within ten (10) business days before its expiration, unless prior to that time a replacement letter of credit or extension is delivered to the Site Development Department.

X102.4.5 Supervision of Grading and Excavation Work

Grading and excavation work shall be completed under the supervision of the permit holder. During construction, the permit holder must exercise adequate control over grading and excavation work to ensure the work conforms to the approved plans and specifications, and to any required geotechnical report. In performing this responsibility, the permit holder may retain and consult with qualified professionals. The responsibilities of these qualified professional are stated below.

If, in the course of fulfilling these responsibilities the contractor or qualified professional of record is changed, the permit holder must notify the Site Development Department of the change in the responsible professional.

Professional Responsible for Supervision of Field Work

The permit holder has primary responsibility for supervision of grading and excavation work in the field to ensure that such work is in conformance with approved plans and specifications. Qualified professionals retained by the permit holder shall observe work as it is performed and make recommendations as follows.

Civil Engineer

1. The civil engineer or other qualified professional who prepares the grading, drainage, and/or water quality control plans and specifications shall observe the establishment of line, grade, and drainage of the graded area and shall recommend to the permit holder whether or not such work conforms to the approved plans and specifications.
2. Upon completion of field work, the qualified professional shall issue a written statement of substantial completion and compliance with approved plans and specifications. Alternately, the qualified professional may submit revised as-built plans and a written statement of compliance with the original design intent.

Geotechnical Engineer or Professional Geologist

The geotechnical engineer or professional geologist shall conduct field tests for required compaction and field observations of subdrain and surface drainage installations and shall recommend to the permit holder whether or not such work conforms to the approved geotechnical report and grading plans. The responsibility for conducting field tests for compaction may be assigned to an engineering firm having experience in soils testing where compaction tests will be conducted under the supervision of a licensed engineer. **X102.4.6 Inspection of Grading and Excavation Work**

1. **Initial Site Inspection**
   A. Before a grading permit is issued, an approved inspection of initial site conditions and temporary erosion controls must be completed by the Site Development Department. An Initial Site Inspection may be requested at the time of permit submittal or after review and approval of the plans and specifications by the Site Development Department. If revisions are required by the Site Development Department during the review process that require a change to the improvement locations after an Initial Site Inspection has been completed, the location of the staked improvements at the site must be moved to the revised locations and re-inspection of the site by the Site Development Department requested. Prior to requesting an Initial Site Inspection, the permit applicant shall:
      i. Have a Professional Surveyor licensed in the State of Colorado pin the corners of each lot where structures or improvements are proposed. The pins shall carry caps denoting the surveyor's license number; ii. Flag the property lines between pins;
      iii. Stake improvement locations of the proposed driveway centerline, excavation site and/or building footprint in accordance with the plans; and
      iv. Install temporary erosion controls in accordance with the Water Quality Control Plan and the *Best Management Practices Manual*.
   B. During the staking of improvement locations and site grading and excavation work, the permit holder shall exercise adequate control over the work and conduct inspections as necessary to ensure that location and grade elevations of roads, driveways, parking areas, drainage improvements, building pads,

foundations, erosion controls and other site improvements conform to the approved plans and specifications, plat conditions, and applicable zoning regulations. The permit holder may contract with qualified professionals to conduct field observations, but the ultimate responsibility for quality control shall rest with the permit holder.

C. The Site Development Department shall supply a copy of the approved grading permit and approved plans to the permit holder. The permit holder is responsible for the posting the permit and plans at the construction site so it is visible from the road and available for use by the Site Development Department for noting results of inspections.

D. After issuance of an approved grading permit by the Site Development Department, the permit holder may apply to obtain a Building Permit from the Building Department. No Foundation Inspection by the Building Department shall be conducted until the Site Development Department has approved a Rough-In Inspection of the driveway as required in Section X102.4.6.2. It is recommended that this inspection be requested prior to setting foundation forms to minimize the cost of relocating site improvements if the inspection reveals that the site improvements have not been located according to the approved plans and applicable zoning regulations.

2. Rough-In Inspection

A. Before a Concrete Pre-Placement Inspection can be called in for a Building Permit, the driveway must be constructed with the proper width, grade, and approach to the access road in accordance with the approved plans and specifications. The permit holder is responsible for calling the Site Development Department for a Rough-In Inspection.

B. If there is a Building Permit associated with the grading permit and the Rough-In Inspection of the site work reveals that the location and grade of the site improvements conform to the approved plans and applicable zoning regulations, the Site Development Department shall notify the Building Department.

C. Construction Period: The permit holder shall exercise adequate control over the grading and excavation work and conduct inspections as necessary to ensure that location and grade elevations of roads, driveways, parking areas, drainage improvements, building pads, foundations, erosion controls and other site improvements conform to the approved plans and specification, plat conditions, and applicable zoning regulations. The permit holder may contract with qualified professionals to conduct field observations, but the ultimate responsibility for quality control shall rest with the permit holder. The Site Development Department may inspect the project site at periodic intervals to verify that the permit holder is fulfilling their responsibilities and that grading and excavation work is in compliance with approved plans and specifications. Any work that does not conform shall be brought to the attention of the permit holder, both verbally and in writing, and the permit holder shall make corrections as needed. If corrections are not made, further project construction shall be stopped.

D. A construction survey may be required if the Site Development Department has reason to believe that a problem exists with the location and/or elevation of site improvements that cannot be verified or resolved.

E. If the permit holder finds it necessary to make field changes during construction, they shall contact the Site Development Department prior to implementing the changes. The Site Development Department will determine if amended plans need to be submitted and approved prior to work proceeding. The Site Development Department may require that as-built plans showing approved changes.

3. Final Inspection

A. At the conclusion of grading and excavation work and prior to the issuance of occupancy certificates for completed structures, the permit holder shall request a Final Inspection from the Site Development Department. All required written approvals, reports, and as-built surveys and drawings shall be submitted to the Site Development Department prior to requesting a Final Inspection. All grading and excavation work including drainage facilities and water quality controls must be constructed in accordance with the County's grading and excavation regulations and approved plans and specifications. All construction materials, temporary sanitation facilities, trash and debris shall be removed from the site and all disturbed areas revegetated. Locations of structures must comply with all plat, site plan conditions, and the County's applicable zoning regulations. The Site Development Department may require the permit holder to submit an Improvement Location Certificate, prepared by a Professional Surveyor licensed in the State of Colorado.

B. No occupancy permits shall be issued and no use of a graded site shall commence until the County Engineer has inspected and approved the final grading and location of structures.

C. If any grading inspection reveals work which does not conform to approved plans and specifications or to the County's grading standards, the permit holder shall be responsible, at his expense, for all corrective work necessary to bring work into conformance. If the permit holder fails to perform such work, the County shall use the permit holder's financial guarantee to eliminate hazardous situations, complete drainage and erosion control devices and revegetate disturbed areas.

D. If site conditions do not allow for grading and excavation work to be completed and/or inspected due to circumstances outside the control of the permit holder such as seasonal snow coverage, occupancy permits may be issued if the Site Development Department determines that unfinished grading work does not pose a hazard to public health, safety, and welfare and the permit holder posts a performance guarantee with the County in an amount sufficient to complete the grading and excavation work in accordance with the approved plans and specifications as required by Section X102.3.4.

SECTION X103

GRADING AND EXCAVATION STANDARDS

Grading plans and specifications submitted for the purpose of obtaining a Grading and Excavation Permit and any earth-disturbing activity done on site must comply with the standards found in these regulations.

Where any development is proposed, finished grades shall be shown clearly on the plans. Where finished grades exceed 3:1 (33.3%), means of temporary stabilization will be required, along with additional temporary erosion and sediment control measures as deemed necessary and appropriate. The maximum slope of un-retained finished grades will be 1½:1 (66.7%) unless a geotechnical report justifying a steeper slope is provided.

X103.1 Setbacks

Cut and fill slopes shall be set back a minimum of 5 feet from property boundaries and structures unless substantiating data is submitted justifying reduced setbacks. Minor grading may be permitted within the setback with finished grades not to exceed 3:1 (33.3%). Roads and driveways are exempt from setback requirements if it is adequately demonstrated that the grading will not adversely impact properties or structures.

X103.2 Cut Slopes

The slopes of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 1½:1 (66.7%) unless a geotechnical report justifying a steeper slope is provided.

Exception: A cut surface in bedrock shall be permitted to be at a slope of 1:1 (100%).

X103.3 Fill Slopes

Unless otherwise recommended in a geotechnical report, fills shall comply with the provisions of this section.

1. Surface Preparation

The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.

2. Benching

Where the existing grade is at a slope steeper than 5:1 (20%) and the depth of fill exceeds 5 feet, benching shall be provided and a key shall be provided that is at least 10 feet in width and 2 feet in depth.

3. Fill Material

Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches in any dimension shall be included in fills.

4. Compaction

All fill material shall be compacted to 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not to exceed 12 inches in depth.

5. Maximum Slope

The slope of fill surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 1½:1 (66.7%).

X103.4 Retaining Walls

Retaining walls shall be constructed in accordance with engineering practices and the design provided. Retaining walls over 4 feet in total height shall be designed, inspected and certified by a Professional Engineer licensed in the State of Colorado. Inspections must be performed as required by the engineer. In the event that a wall exceeds 4 feet in height but was not engineered, a certification letter or as-built prepared by a Professional Engineer licensed in the State of Colorado shall be provided. If the engineer has not observed the wall construction as needed then the wall must be dismantled and reconstructed with observations as required.

1. Engineering Requirements

a. Construction plans must indicate how the proposed wall height will vary along its length.
b. Details must have elevations showing top (TOW) and bottom of wall (BOW) for critical points along each wall length.
c. Supporting calculations must demonstrate an adequate factor of safety with respect to:
    - Bearing capacity
    - Overturning
    - Sliding
    - Internal stability
    - Global stability may be required dependent upon site conditions **Note:** Surcharge loads due to sloping backfill, adjacent vehicles and structures must be taken into account

The design parameters used for retaining wall analysis may require consultation from a geotechnical engineer. Sites with steep slopes, vehicles or structures near the walls and/or walls exceeding 8 feet in height may require a specific geotechnical study.

2. Setbacks

Setbacks for retaining walls shall be at least 5 feet from property boundaries and 25 feet from off-site occupied structures. The Site Development Department may waive setback requirements provided the applicant can adequately demonstrate that activities occurring within the setback will not adversely affect adjacent properties. Retaining walls associated with roads and driveways are exempt from setback requirements if it is adequately demonstrated that the retaining walls will not adversely impact properties or structures.

3. Drainage

When surface drainage is discharged onto any adjoining property, it shall be discharged in such a manner that it will not cause an increased hazard to the stability of any cut and fill slope or any building or structure. Runoff shall not be discharged from the site in quantities or at velocities substantially above those which occurred before grading except into drainage facilities such as roadside ditches or drainage easements where appropriate energy dissipation devices have been installed.

4. Tiered Walls

If a series of retaining walls is desired, the required horizontal distance between walls, as measured from the back of the lower wall to the face of the upper wall, is a minimum of 4 feet and a minimum of 6 feet if either retaining wall exceeds 8 feet in height. No individual wall may exceed 12 feet.

5. Grading

If the construction of a retaining wall will result in grading/disturbance of more than 800 square feet of area and/or a cut/fill volume of more than 10 cubic yards, a grading permit will be required.

6. Easements

Encroachment into utility easements requires approval by all agencies with interest in the easement. Encroachment into drainage easements requires approval from the Site Development Department.

X103.5 Consistency with Approved Plans

1. Where a final plat has been approved for a site for which grading permits are requested, the grading plans submitted shall be in substantial compliance with any improvement plans approved with the plat. The location and design of roads, trails, sidewalks, pathways, drainage improvements and utility lines shall be consistent with the improvement plans, unless allowance is made by the County Engineer for changes based on additional information on field conditions. Changes to improvement plans must meet County design standards (*Roadway Design and Construction Manual*), unless a deviation from these standards is granted. Changes to plans for utility lines must also be approved by the affected utility.
2. Where a site plan, special use permit, deviation or other development review having a site plan has been approved for a project for which grading permits are requested, the location of building pads, parking areas, driveways, roadways, trails, sidewalks, pathways, drainage improvements, berms and other site work shown on the grading plans shall be in substantial compliance with the approved plans. If a developer proposes a grading plan that differs from the approved site plan, the grading plan shall be referred to the Planning Department for a determination whether or not a revision of modification is needed. If a revision or modification is needed, approval shall be obtained prior to issuance of any grading permit.

X103.6 Conformance with *Roadway Design and Construction Manual*

Clear Creek County has adopted road and bridge design and construction standards that appear in the *Roadway Design and Construction Manual*. These standards specify requirements for the following:

1. General Design Elements (Section 2.4.2)
2. Specific Design Elements (Section 2.4.3)
3. Standards for Parking Areas (Section 2.8.2)
4. Landscaping and Erosion Control (Section 2.9)
5. Construction of Roads (Sections 3.3.2 thru 3.3.9)
6. Standards for Driveway Design (Section 4.7.3)

Grading and excavation plans submitted in compliance with these regulations and earth disturbing activities subject to these regulations must conform to the standards in the *Roadway Design and Construction Manual*.

X103.7 Consistency with Geotechnical Report

Persons applying for a grading permit shall be required to submit a geotechnical report unless this requirement is waived by the County Engineer. Where a report is required, it is the responsibility of the civil engineer or other qualified professional who prepares the grading plans and specifications to incorporate the recommendations contained in the geotechnical report into these plans and specifications.

X103.8 Stormwater Quality and Erosion Control Standards

These stormwater quality and erosion control standards are created to prevent pollution of surface waters, prevent sedimentation of wetlands, protect creeks and streams and their associated floodplains, control and manage increased runoff due to local development and to limit civil disputes arising from unlawful trespasses in the form of erosion and sedimentation, as well as to avoid overwhelming roadway drainage systems, culverts, and other stormwater conveyances that may exist in the County.

The Mile High Flood District's *Urban Storm Drainage Criteria Manual*, Clear Creek County's M*anaging Stormwater to Protect Water Resources in Mountainous Regions of Colorado* and/or *Best Management Practices Manual* shall be applied to address stormwater quality management and erosion control for all proposed projects and developments. All stormwater reports and plans shall include necessary analyses, mitigation measures, and improvements needed to meet these stormwater quality and erosion control standards.

1. Plan Requirements

Prior to approval of a proposed subdivision, site plan or issuance of any building or grading permit, plans that meet the following standards shall be submitted to and approved by the Site Development Department:

A. Prevention of soil loss from the development site by promoting infiltration of storm events to the water quality volume represented by the average 90th percentile cumulative frequency annual rainfall event (0.60 inches). This standard shall be met both during and after construction.
B. Prevention of any increase in the historic rate of run-off from the development site produced by the 10-year and 100-year design storms. This standard shall be met both during and after construction.
C. Prevention of any direct discharge of storm water to a lake, stream or intermittent stream.
D. Provision for adequately sized detention facilities where dewatering of excavations is needed or construction site water management is required. E. Diversion of run-off from snow storage areas into detention facilities.

2. Water Quality Control Plan

A water quality control plan for the site that meets the standards set forth in Sections X103.5.1.A through X103.5.1.E shall be prepared by a Professional Engineer licensed in the State of Colorado having knowledge and experience in civil engineering and hydrology.

Construction of single-family residential units shall be exempt from the requirement to provide a specific water quality control plan if:

A. The entire subdivision is provided with central erosion and run-off controls such as a community desilting pond for all drainage from the subdivision; or
B. The Site Development Department determines that exempting construction will not have a significant impact on water quality.

The Site Development Department retains the authority to apply these standards when water quality impacts are likely to be significant, such as, but not limited to, construction on slopes greater than 3:1 (33.3%), construction within 25 feet of a lake, stream or river or if wetland disturbance will result.

3. Revegetation Plan

A revegetation plan shall be prepared by an individual having a degree in landscape architecture or comparable expertise, and sufficient experience in landscaping installation and maintenance to ensure the success of the plans they propose.

Revegetation plans shall provide for site coverage of disturbed areas after development equal to or better than vegetative coverage prior to development, where such areas are not intended to be used for roads, driveways or parking areas. Vegetated site coverage shall be native species, or alternatively, other hard species provided with an irrigation system.

In all cases, disturbed areas to be revegetated shall meet the following minimum standards:

A. Slopes constructed at less than 3:1 can be hand seeded and mulched.
B. Slopes constructed at 3:1 to 2:1 shall be hydro seeded/hydro mulched.
C. Slopes constructed at 2:1 to 1½:1 shall be hydro seeded/hydro mulched and have slope netting/erosion control blankets installed (or equivalent erosion control measure with the approval of the County Engineer).

In areas where it has been determined that the native soil or site fill is not capable of fostering seed growth, soil amendments will be required.

X103.9 Conformance with Zoning Regulations

All earth-disturbing activity subject to grading and excavation regulations shall also meet the requirements in the County's zoning regulations.

X103.10 Compliance with Applicable 404 Permit Requirements

If the site contains areas deemed a jurisdictional wetland by the U.S. Army Corps of Engineers, the applicant must either present evidence of compliance with Section 404 of the Federal Clean Water Act, or present evidence that work will be done under the auspices of the Colorado Department of Wildlife nationwide 404 permit. Documentation and compliance with all potential Section 404 matters shall remain the sole and ongoing responsibility of the project proponent, and any failure to maintain such compliance may lead to suspension or revocation of any approvals provided under this Code.

X103.11 Hazards

Whenever the County Engineer determines that any existing excavation, fill or embankment on private or public property has become a hazardous condition to life and limb, endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the County Engineer, shall within the period specified therein repair or eliminate such excavation or embankment to eliminate the hazard and to be in conformance with the requirements of this Code.

SECTION X104

EXEMPTIONS TO GRADING AND EXCAVATION PERMIT REQUIREMENT

The following activities shall be exempt from requirements to obtain grading permits:

1. Earth-disturbing activities for agricultural operations.
2. Routine road maintenance such as snow removal, grading of gravel roads, and cleaning of drainage ditches.
3. Any earth-disturbing activity involving less than 800 square feet of surface area; however, if the Site Development Department has determined an activity of this type will result in hazardous conditions or water quality impacts, the requirement for obtaining a grading permit shall be met.

4. Any earth-disturbing activity necessary for the installation or renovation of landscaping associated with a developed single-family or duplex unit. Grading or excavation work with a volume in excess of 50 cubic yards is beyond the scope of this exemption and requires grading permits.
5. Any activity specifically covered by an approved right-of-way permit issued by the Clear Creek County Road & Bridge Department.
6. Any activity specifically covered by an approved OWTS permit issued by the Clear Creek County Environmental Health Department.
7. Mining, quarrying, processing or stockpiling of rock or soil where established and provided for by law and controlled by other regulations, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

These exemptions do not alter any obligation to comply with other regulations contained within these regulations.

SECTION X105

DEVIATIONS

X105.1 Exceptions to Design and Construction Standards

Exceptions from the design criteria and construction specifications contained in, or relied on by reference by, this Appendix Chapter X may be granted by the County Engineer, at their discretion, under the following circumstances:

1. Where, by reason of exceptional topographic or physical conditions or other extraordinary and exceptional situations or conditions, the strict application of these regulations would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardship upon, an individual proposing to construct a driveway provided the conditions, practical difficulties or hardship are not self-imposed.
2. Where an individual is proposing to construct an improvement governed by this Chapter and the strict application of these regulations would result, in the opinion of the County Engineer, in excessive cut and fill slopes, visual scarring, or other environmental damage, deviations from road design standards may be granted if granting the lesser standard will result in reduced environmental damage and the intent of the specific standards in question are being preserved.

X105.2 Consideration for Decisions on Deviation Requests

In reviewing deviation requests, the following criteria shall be considered to the extent applicable:

1. The effect of using a lesser standard on public health and safety including the ability of emergency vehicles to gain access, using road(s), bridge(s) or driveway(s) built to a lesser standard.

2. The existence of alternative design options that could accomplish the same objectives with less damage and/or less departure from the standards.
3. The severity of the terrain.
4. The availability of alternative alignments where the same or more stringent road standards could be met with the same or less environmental damage.
5. The length of road segments which will be built to a lesser standard.
6. The amount of snowfall anticipated and degree of exposure of the road surface to sun.
7. Comment from the appropriate public safety and other interested agencies received during the referral period, if applicable.
8. If a referral is made to a public safety agency that determines that granting the deviation is reasonably expected to impair the agency's ability to provide public safety service on the property or nearby properties, the application must be denied, unless the impairment can be mitigated, in which case the application may be approved on the condition that acceptable mitigation techniques are present or constructed and maintained.

X105.3 Submittal Requirements

The Site Development Department will determine the required submittal information based on the type of deviation being requested, surrounding circumstances and above criteria to be considered. Typical submittal requirements include:

1. An application form as provided by the Site Development Department;
2. A narrative and/or supplemental material which address the circumstances in Section X105.1 and the criteria of Section X105.2 to include;
    a. The hardship imposed by the standard and why the proposed improvement cannot reasonably comply with the standard,
    b. How the deviation request will not confer a personal convenience, profit or special privilege to the owner/applicant, and
    c. How the hardship has not been self-imposed by the owner/applicant.
3. The appropriate fee as established on the Fee Schedule; and
4. Other information deemed reasonable by the Site Development Department.

X105.4 Appeals

The Board of County Commissioners shall be responsible for hearing appeals from determinations on deviation applications. Appeals may only be filed by persons who are determined to be materially and adversely affected by the decision of the County Engineer.

X105.4.1 Process for Appeal

X105.4.1.1 An appeal must be filed with the Site Development Department within sixty calendar days following the issuance of the decision being appealed. If an appeal submittal is

deemed incomplete by the Department, the applicant will be given thirty calendar days within which to complete it.

X105.4.1.2 The applicant shall provide the Site Development Department with a written appeal addressing the circumstances in Section X105.1 and criteria of Section X105.2 as they relate to the proposed deviation.

X105.4.1.3 The submittal shall be reviewed in a timely manner for completeness by the Department. The applicant shall be notified of any missing or incomplete documentation. An incomplete submittal shall not be processed.

X105.4.1.4 The Department will notify property owners whose boundaries are within 300 feet of the subject parcel and any referral agencies that may be affected by the proposed deviation. The applicable agencies shall be determined per case and based upon the property development considerations.

X105.4.1.5 Adjacent property owners and referral agencies shall be given twenty-one calendar days to submit written comments to the Department.

X105.4.1.6 Based upon the submittal documentation, property development consideration, and comments received, the Department will prepare a staff report and provide a recommendation to the BOCC for the public hearing, a copy of which will be provided at the same time to the applicant and any person or agency which submitted comments.

X105.4.1.7 During the public hearing, the BOCC shall evaluate the submittals, referral comments, staff report, and public testimony, and make a decision to approve, approve with conditions, or deny the appeal.

X105.4.1.8 Following the BOCC decision, the Department shall notify the applicant of what is required to finalize the decision, prepare the final resolution and obtain the BOCC Chairperson's signature. The fully executed resolution and all applicable attachments shall be filed with the County Clerk and Recorder's Office.

SECTION X106

DEFINITIONS

The following definitions are provided herein for the sole purpose of interpreting, administering and implementing the County's Grading and Excavation Regulations. For the purposes of these Grading and Excavation Regulations only, the definitions set forth herein shall control and take precedence over any other definitions.

Agricultural Operations – Operations associated with the growing of timber or crops (with the exception of retail marijuana cultivation facilities and medical marijuana optional premises

cultivation operations), and raising of livestock including but not limited to such activities as plowing, planting, scarifying soils, construction and clearing of irrigation ditches, burning fields or irrigation ditches, construction of roads, buildings and stock ponds within farm or ranch operations.

Approved Plans – Current grading, drainage, water quality control and/or revegetation plans that have been approved by the County Engineer.

Bench – A relatively level step excavated into earth material on which fill may be placed.

Civil Engineer – A Professional Engineer licensed in the State of Colorado having knowledge and experience in the field of engineering.

Civil Engineering – The application of the knowledge of the forces of nature, principles of mechanics and properties of materials for the evaluation, design and construction of civil work for the beneficial use of mankind.

County Engineer – The director of the Clear Creek County Site Development Department or his authorized representative.

Driveway – An accessway for vehicles providing a connection from a public or private roadway to either individual single-family residences or to a parking area serving multi-family residences; commercial business; recreational, institutional, or industrial land uses.

Earth-Disturbing Activity – Mechanical removal of any rock, natural soil, fill or any combination thereof, the placement or stockpiling of fill or the clearing of trees and vegetation for the purpose of constructing roads, site improvements or structures, installing utility lines or making use of the land in other than its natural state.

Erosion Controls – Desilting facilities and erosion protection, including diversion of upland drainage, use of downgradient perimeter berms or stormwater fencing during construction and prior to site stabilization, appropriately sized culverts, use of energy dissipation devices in steep or transitional areas, and effective planting, to protect property, watercourses, public and private facilities and receiving waters from abnormal deposition of sediment or dust.

Excavation – The mechanical removal of earth material.

Fill – A deposit of earth material placed by artificial means.

Geotechnical Engineer – A Professional Engineer licensed in the State of Colorado having knowledge and experience in the field of Geotechnical Engineering.

Geotechnical Engineering – The application of geologic, soils and hydrologic knowledge and principles in the investigation and evaluation of naturally occurring rock, soil, ground and surface water for use in the design of civil works.

Grade – The number of feet of horizontal distance traveled for every one (1) foot of vertical rise in the ground surface expressed as a ratio (e.g. a 3:1 grade means three (3) feet of horizontal distance is traveled for every one (1) foot of vertical rise in the ground surface).

Grade, Existing – The ground surface prior to grading.

Grade, Finish – The final grade of a site that conforms to the approved plan and provides final site drainage.

Grade, Natural – The ground surface unaltered by artificial means.

Hazardous Condition – A condition when the state of any natural ground, natural slope, excavation, fill or drainage device, which exists on private or public property, is a menace to life or limb, a danger to public safety or endangers or adversely affects the safety, usability or stability of adjacent property, structures, or public or private facilities.

Professional Geologist – A person who is a graduate of an institution of higher education which is accredited by a regional or national accrediting agency, with a minimum of thirty semester (forty-five quarter) hours of undergraduate or graduate work in a field of geology and whose post baccalaureate training has been in the field of geology with a specific record of an additional five years of geological experience to include no more than two years of graduate work.

Roadway – A public or private accessway for vehicles which serves more than five individual single-family residences; provides connections between residences, businesses, community facilities and other lands uses; and/or otherwise provides vehicular access across and through Clear Creek County.

Structure – A wall and roofed building which is principally above ground, as well as a manufactured home.

2024 INTERNATIONAL BUILDING CODE

CHAPTER 1 SCOPE AND ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with:

101.1 Title. These provisions shall be known as the Building Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

101.4 Referenced codes.

101.4.3 Plumbing. Delete the last sentence and replace with the following:

Private sewage disposal systems are regulated by the Clear Creek County Environmental Health Department.

Delete Section 101.4.4 Property maintenance in its entirety

SECTION 103 - DEPARTMENT OF BUILDING SAFETY

Delete section 103.1 Creation of enforcement agency and replace with:

103.1 Creation of enforcement agency. The Building Department is hereby created and the official in charge thereof shall be known as the building official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION 105 – PERMITS

Add section R105.1.3 License Required:

105.1.3 License Required. All persons undertaking work which requires a permit as provided in Section 105, or seeking to obtain that permit from the County, are required to have a currently valid contractor's license issued from Clear Creek County Planning and Building Services Department. That license shall have been issued by the County in accordance with the provisions of the Clear Creek County Contractors Licensing Requirements and the Contractor Licensing Regulations adopted by the Board of County Commissioners, and any regulations subsequently adopted by the Board of County Commissioners, as said resolution and regulations may be amended from time to time by said Board.

Exception:

1. The Building Official may waive the provisions of this section where it can be established that no license exists for the installation, alteration, or repair of a certain type of work requiring a permit, or due to other unique circumstances.

Section 105.2 Work Exempt from permit delete Number 1 under "Building" and replace with:

1. One-story detached accessory *structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15m^2) and the *structure* is located more than 50 feet (15240 MM) from the nearest adjacent *structure*.

Add sentence to **105.3.1 Action on application**:

The building official is authorized to deny a permit to an applicant or property not meeting the provisions of this code, to any person who has an outstanding failure to appear in court pertaining to a county violation, a person or property with associated outstanding permit(s) or fees related to any county application or permit, or to any person or property not in compliance with any other county regulations. Permits may be issued once conditions set by the building official are satisfied.

Delete Section 105.5 in its entirety and replace with following:

105.5 Expiration. Every permit issued by the building official under the provisions of this code shall expire by limitation and become null and void if more than 180 days pass before an initial inspection or 180 days pass between inspections after the issuance of such permit. Work must be pursued and completed in good faith to complete construction in a timely manner as determined by the building official.

105.5.1 Renewal Permit. A renewal for a permit may be applied for when a permit has expired and a full fee will be assessed unless the permit has received approvals from the building official through all of the rough inspections and provided no changes have been made to the original plans and specification, then a 50% fee will be charged. The rough inspections include all Framing, Mechanical and Plumbing. The renewal will be subject to the provisions of the currently adopted code unless technically infeasible. Trade permits may be renewed if not more than 1 year has elapsed from original permit issuance for 50% permit fee.

105.5.2 Permit Extension. Any permittee holding an unexpired permit may apply for an extension of the time to complete the work and inspections under that permit when the permittee is unable to complete the work within the time required by Section 105.5 due to circumstances beyond the control of the permittee. The extension shall be requested in writing prior to the expiration of the permit and justifiable cause for the extension shall be demonstrated. The building official is authorized to grant an extension of time for a period of 180 days.

Add the following Sections:

105.10 Transfer of Permits. An unexpired permit may be transferred from one party to another upon written application to the building official by the new owner of the property or his/her authorized agent, provided there is no change in the plans and specifications. Documentation of the change in ownership must be provided by the new owner. No change shall be made in the expiration date of the original permit. A fee is required to transfer the permit, please refer to the building permit fee schedule for the fee schedule.

SECTION 109 – FEES

109.1 Payment of Fees. Add the following sentence:
Any reduction or waiver of a permit fee must be approved by the Board of County Commissioners.

Delete Section 109.2 in its entirety and replace with the following:
109.2 Schedule of Permit Fees. A fee for each permit shall be paid to the Building Department as set forth in the building permit fee schedule.

Delete Section 109.3 in its entirety and replace with the following:
109.3 Building Permit Valuations. The applicant for a permit shall provide an estimated value of all the work to be performed, including materials and labor, for all building, mechanical and plumbing, at the time of application. The determination of value or valuation under any of the provisions of this Code shall be made by the building official. The valuation to be used in computing the building permit fees shall be the total value of all construction work and materials for which the permit is issued, or annual average cost of construction as published in the "Buildings Safety Journal" by the International Code Council. No adjustment will be made by the regional modifier.

Delete 109.4 completely and replace with the following:
109.4 Work commencing before permit issuance. In addition to the required permit fee, any person who commences work on a building, structure, gas, mechanical or plumbing system before obtaining the necessary permits or who violates Section 110.6 shall be subject to an Investigation Fee in an amount equal to the permit fee.

109.5.1 Temporary Certificate of Occupancy. There shall be a fee for a Temporary Certificate of Occupancy as set forth in the building permit fee schedule.

109.5.2 Reinspection. A Reinspection Fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called for, is not complete or when corrections called for are not made. Reinspection Fees shall be assessed when the inspection record card is

not posted or otherwise available on the work site, the approved plans are not readily available to the Inspector, for failure to provide access on the date for which the inspection is requested, or for deviating from the plans requiring the approval of the building official. A Reinspection may be assessed for failure to post a readily visible address. To obtain a reinspection, the applicant shall pay the Reinspection Fee in accordance with the building permit fee schedule. In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until the required fees have been paid.

109.6 Refunds. Add the following sentence:
The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected. The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code. The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. Only permit fees shall be eligible for refunds. No refunds will be made of plan review fees.

SECTION 110 – INSPECTIONS

Add the following:
110.1.1 Posting of Assigned Site Address. The address of the building site must be posted in a conspicuous place readily visible from the public road.

SECTION 111 – CERTIFICATE OF OCCUPANCY

111.3 Temporary Occupancy. Add the following sentence: See building permit fee schedule for Temporary Certificate of Occupancy fee.

Add section 111.3.1 Validity.
111.3.1 Validity. Temporary certificate of occupancy shall be valid for 30 days. Extensions may be granted as allowed by the building official. Fees shall apply as set forth building fee schedule. If the TCO expires prior to certificate of occupancy being issued, temporary certificate of occupancy fees will be due for the period of time up to the certificate of occupancy issue date.

SECTION 116 - UNSAFE STRUCTURES AND EQUIPMENT

Delete section 116 in its entirety replace with adopted IRC appendix E Unsafe Buildings or Structures

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 406 – MOTOR-VEHICLE-RELATED OCCUPANCIES

Delete all reference to ½ inch gypsum board and replace with 5/8-inch Type X gypsum within 406.3.2.1 Separation.

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

SECTION 1507 – REQUIREMENTS FOR ROOF COVERINGS

Add the following sentence to 1507.1 Scope:

All roofing material shall be Class A rated except wood roofing which can be Class B fire resistant with an approved Class A assembly underlayment. Class B or Class C roofing materials may be used only if the material has been tested with a fire-resistive assembly and the assembly has received a Class A rating and the material is installed exactly as specified in the Class A rated assembly.

Add the following sentence to 1507.9 Wood Shakes:

Wood roofing without a Class A fire resistant assembly rating shall not be permitted.

SECTION 1512 – REROOFING

Add the following sentence to 1512.1 General:

All roofing material shall be a Class A fire resistant assembly with an approved Class A assembly compatible underlayment as stated by product manufacturer.

CHAPTER 16 STRUCTURAL DESIGN

SECTION 1608 – SNOW LOADS

Delete 1608.1 and 1608.2 and replace with:

1608.1 Snow Loads. The roof structure shall be designed for snow loads as determined by the Basic Snow Load Design in Table 1608.1.1 No snow load reductions are allowed.

Basic Snow Load Design Table 1608.1.1 Roof Snow Loads Required in Pounds per Square Foot (PSF)

Elevation (feet above sea level)	Basic Snow Load (PSF)	Elevation (feet above sea level)	Basic Snow Load (PSF)

6,500 to 6,750	35	9,001 to 9,250	85
6,751 to 7,000	40	9,251 to 9,500	90
7,001 to 7,250	45	9,501 to 9,750	95
7,251 to 7,500	50	9,751 to 10,000	100
7,501 to 7,750	55	10,001 to 10,250	110
7,751 to 8,000	60	10,251 to 10,500	120
8,001 to 8,250	65	10,501 to 10,750	128
8,251 to 8,500	70	10,751 to 11,000	135
8,501 to 8,750	75	11,001 to 11,500	150
8,751 to 9,000	80		

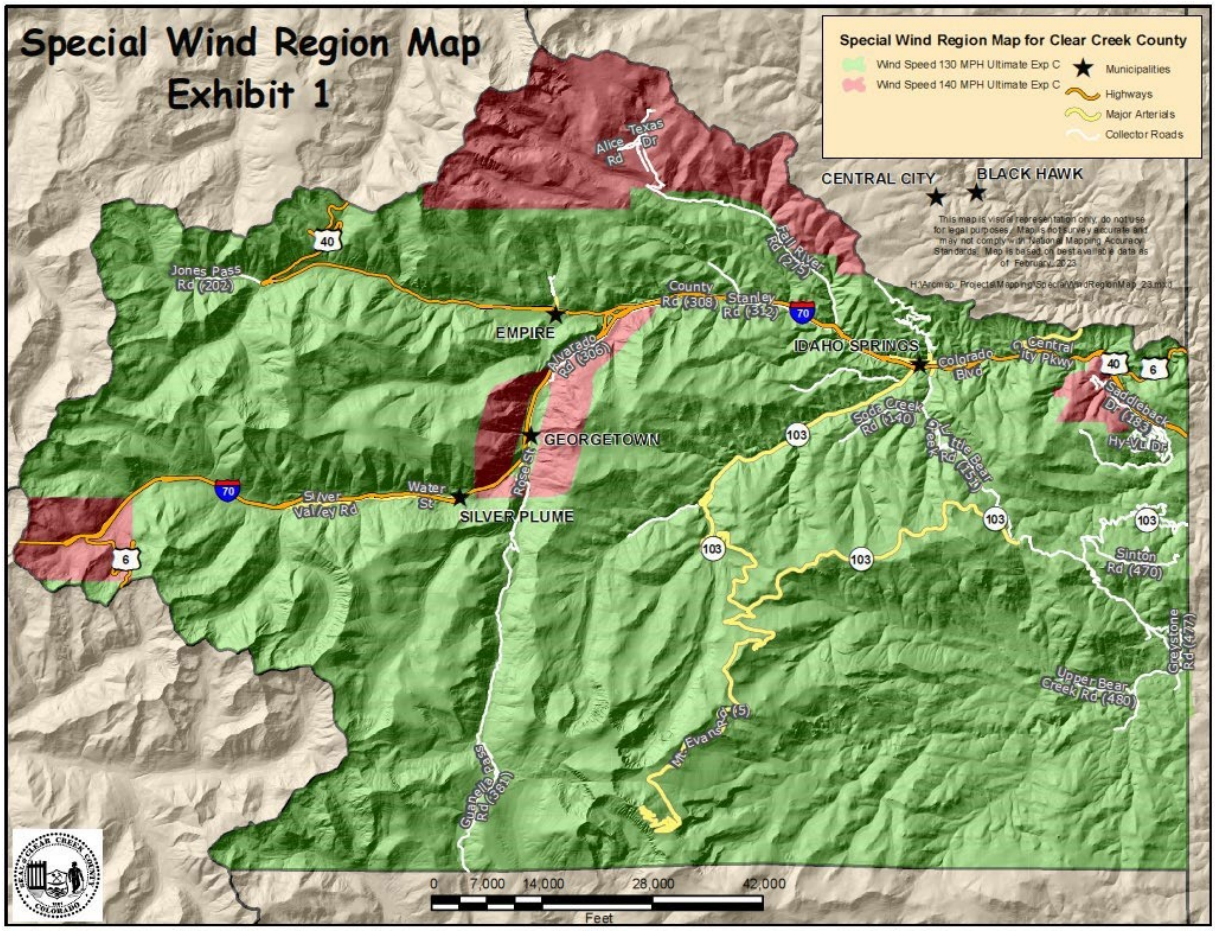
SECTION 1609 - WIND LOADS

Add the following to:

1609.1.1 Determination of wind loads:

Figures 1609.3(1), 1609.3(2), 1609.3(3), and 1609.3(4) identifies parts of Clear Creek County to be in a Special Wind Region. See Exhibit 1 containing Special Wind Region Map "Clear Map" Building Design Criteria "Windspeed" identifies windspeeds for various risk category buildings. Portions of Clear Creek County are shown to be in a 'Special Wind Region'. Clear Map location: map.co.clear-creek.co.us/HTML5viewer/?Viewer=clearmap

EXHIBIT 1:



CHAPTER 21 MASONRY

SECTION 2111 – MASONRY FIREPLACES

Add the following:

2111.1.1 New fireplaces. Every new solid-fuel burning fireplace shall have permanently installed either: (1) approved gas logs; (2) other approved gas or alcohol specific appliances; (3) an approved fireplace insert meeting emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or (4) a solid fuel-burning device which is exempt from and not eligible for certification under U.S. Environmental Protection Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance

is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990. (Effective January 1, 1991-CC90-617.)

Add the following to 2111.14.1:

2111.14.1 Factory-built fireplaces. Every new solid-fuel burning factory-built fireplace shall have permanently installed either: (1) approved gas logs; (2) other approved gas or alcohol specific appliances; (3) an approved fireplace insert meeting emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or (4) a solid fuel-burning device which is exempt from and not eligible for certification under U.S. Environmental Protection Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990. (Effective January 1, 1991-CC90-617.)

CHAPTER 29 PLUMBING SYSTEMS

SECTION 2902 – MINIMUM PLUMBING FACILITIES.

Add the following exception to 2902.1:

Exception: Minimum plumbing facilities shall not be required for primitive housing where allowed by the Environmental Health Department and the specific zoning of the parcel.

IBC ADDOPTED APPENDICIES

The following Appendix Chapters to the 2024 International Building Code are hereby adopted and enforced by Clear Creek County, Colorado:

Delete Appendix Chapter E and replace with **APPENDIX CHAPTER E UNSAFE BUILDINGS OR STRUCTURES** as written in the 2024 International Residential Code Amendments and adopt as part of this code.

Delete Appendix Chapter F and replace with **APPENDIX CHAPTER BE PASSIVE RADON CONTROLS** as written in the 2024 International Residential Code Amendments and adopt as part of this code.

Delete Appendix Chapter M, and replace with the following and adopt as part of this code:

APPENDIX CHAPTER M MARIJUANA OPERATIONS

SECTION M101 – GENERAL

M101.1 Scope. This section shall apply to all occupancies engaging in marijuana (i.e. cannabis and extract derivatives) sales locations, growing, processing, extraction, and/or testing. These occupancies shall comply with this chapter and other applicable provisions of this Code.

M101.2 Permits. Permits shall be required for all Marijuana Operations.

M101.3 Existing Operations. Buildings containing existing growing or extraction operations shall comply with this code within 6 months of adoption.

SECTION M102 - EXTRACTION OPERATIONS

M102 Construction Requirements.

M102.1 Location. Extraction of Marijuana and or Hemp processes shall be performed in a room dedicated to the extraction process.

M102.2 Egress. Exit doors from extraction rooms utilizing hazardous materials shall swing in the direction of egress and be self-closing. Panic hardware shall be provided on doors in liquefied petroleum gas (LPG) extraction rooms. Where latching door hardware is provided on extraction rooms utilizing hazardous materials, panic hardware shall be provided.

M102.3 Extraction Rooms. Extraction room shall be fully enclosed. The floor, ceiling, and walls of extraction rooms shall be non-combustible, and smooth. Rooms designed in accordance with Section M102.4 shall be constructed to permit the free passage of exhaust air from all parts of the room.

> EXCEPTIONS: 1. Enclosed booths constructed in accordance with IFC Section 2404.3.2.1 through 2404.3.2.3.
> 2. CO_2 extraction rooms and extraction rooms containing processes not utilizing hazardous materials.

M102.4 Openings and penetrations. Openings and penetrations into extraction rooms utilizing hazardous materials shall only be provided for egress, mechanical, electrical, or plumbing systems serving the extraction room. Penetrations into LPG extraction rooms shall be sealed vapor tight. Non-operable glazing is permitted where glazing does not interfere with required exhaust systems.

M102.5 Extraction room illumination. Luminaires inside the extraction room shall comply with Section M103.3. Luminaires attached to the walls or ceilings of an extraction room or booth, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass panels, shall be suitable for use in ordinary hazard locations. Such luminaires shall be serviced from outside the flammable vapor areas.

M102.6 Fire protection. Extraction rooms, booths, or hoods, including ductwork where required for hazardous exhaust systems, shall be protected by an approved automatic fire extinguishing system complying with Chapter 9 where any of the following exist:

Extraction processes utilizing LPG or off gassing LPG from spent plant material or oil.
Vapors are released exceeding 25% of the lower flammable limit from flammable liquid extraction processes or flammable liquid post oil processing.

M103.1 Sources of ignition. Extraction or post oil processing operations which use flammable liquids or liquefied petroleum gas (LPG) shall comply with Sections M103.1 through M103.3.1

M103.2 Open flame and sparks. Smoking, open flames, direct fired heating devises, etc. shall be prohibited where flammable vapors exist.

M103.3 Electrical equipment. Electrical equipment installed in rooms designed in accordance with Section M105.1.2, hoods or booths containing LPG extraction processes shall be in accordance with NFPA 70 (NEC) as a Class I Division I location. Areas adjacent to classified locations shall be in accordance with NFPA 70 (NEC). Electrical equipment installed in areas of flammable liquid extractions or post oil processing shall be in accordance with IFC Chapter 50, as amended, and NFPA 70 (NEC).

M103.3.1 Grounding and Bonding. Precautions shall be taken within LPG extraction rooms to minimize the possibility of ignition by static electrical sparks through static bonding and grounding of extraction equipment, ducts, and piping etc. installed in accordance with NFPA 70 (NEC).

M104 Equipment. Extraction process equipment utilizing hazardous materials shall be listed or approved. No more than 5 gallons of Butane or LPG shall be stored in the building/tenant finish at any time. Storage outside must be in rated cabinets, and placed in an approved location.

M105 Exhaust required. Extraction and post oil processing, utilizing LPG or flammable liquids shall be provided with an exhaust system in accordance with Section 3903.1 or 3903.4.2. The exhaust system shall be in operation at all times when extractions or post oil processing is being performed and until LPG is off gassed from oil and/or plant material removed from LPG extraction

equipment. Fans shall be of the type approved for use when flammable or explosive vapors are present in accordance with the *International Mechanical Code*, Section 503. Capture and containment air velocity shall be provided across booths, hoods, or exhausted enclosures to capture and convey emissions to the exhaust system and shall be no less than 75 cfm.

M105.1 Exhaust for LPG extraction processes. An engineered hazardous exhaust system shall be provided for LPG or flammable liquids extraction processes including LPG degassing from processed plant material or oil removed from extraction equipment.

M105.1.2 Exhausted enclosure. Where the extraction room is used as the exhausted enclosure, the exhaust system shall be designed to provide capture and containment air velocity across all areas of the enclosure.

M105.1.3 Electrical Interlocks. The exhaust system shall be interlocked with the room power, such that when the exhaust system is not operating, power and lighting will be disabled.

M106 Gas Detection. A continuous gas detection system shall be provided within rooms, booths, or hoods, containing CO_2 or flammable liquids extraction processes. Actuation of the gas detection system shall initiate a local alarm within the room. CO_2 gas detection systems shall alarm at 5000ppm. LPG gas detection system shall alarm at no greater than 20% of the LFL. Portable LPG gas detection shall be utilized by the extraction system operator to verify local hydrocarbon levels, including system leaks.

M106.1 CO_2 Extraction Equipment Process discharge. CO_2 discharges shall be piped to the exterior.

M107 Refrigeration and Cooling Equipment. Refrigerators, freezers, and other cooling equipment to store or process flammable liquids shall meet NFPA 45.

SECTION M201-CARBON DIOXIDE ($C0_2$) GAS ENRICHMENT SYSTEMS USING ON-SITE SUPPLY TANKS AND/OR CYLINDERS IN PLANT GROWING (HUSBANDRY) APPLICATIONS

M201.1 General. Carbon dioxide enrichment systems with more than 100 pounds (45.4 kg) of carbon dioxide or any system using any amount of carbon dioxide (CO_2) below grade used in plant growing (husbandry) applications shall comply with Sections 5310.2 through 5310.8.

M201.2 Permits. Permits shall be required.

M201.3 Equipment. The storage, use, and handling of carbon dioxide shall be in accordance with IFC Chapter 53, and the applicable requirements of NFPA 55, Chapter 13. All equipment utilized in compressed gas systems shall be compatible with the intended gas and use.

M201.3.1 Containers, cylinders and tanks. Gas storage containers, cylinders and tanks shall be designed, fabricated, tested and labeled with manufactures' specifications and shall be maintained in accordance with the regulations of DOT 49 CPR, Parts 100-185 or the ASME Boiler and Pressure Vessel Code, Section VIII.

M201.3.1.1 Location. Location of gas storage containers, cylinders and tanks, inside or outside the building, shall be at an approved location.

M201.3.1.2 Security. Gas storage containers, cylinders and tanks shall be seemed in an approved manner to prevent overturning. Containers, cylinders and tallies located outside shall be secured and safeguarded against tampering and protected from physical damage if exposed to vehicle traffic.

M201.3.1.3 Design and construction. Bulk tank installations over 2,000 pounds will require an engineered foundation and construction permit in accordance with the County Building Code.

M201.3.2 Piping systems. Piping, tubing, fittings, valves and pressure regulating devices shall be designed and installed in accordance with approved standards and manufacturers' recommendations.

M201.3.2.1 Piping, tubing and hoses. Piping, tubing and hose materials shall be compatible with carbon dioxide and rated for the temperatures and pressures encountered in the system. All hoses and tubing used in carbon dioxide service shall be designed for a bursting pressure of at least four times their design pressure. PVC/ABS and other types of rigid plastic piping are not approved materials. Acceptable piping for carbon dioxide shall be the following:

a. Stainless steel A269 grade, which is either seamless or welded drawn over mandrel
b. Copper K grade, hard drawn seamless
c. Copper ACR grade (1/2 inch outside diameter or less) annealed seamless
d. Plastic/polymer materials rated for use with carbon dioxide
e. Additional approved piping, tubing and hoses found in the Compressed Gas Association (CGA) standards for carbon dioxide

M201.3.2.1.1 Support. Gas piping shall not be attached or supported by any electrical light supports or wiring.

M201.3.2.1.2 Identification. Markings for carbon dioxide ($C0_2$) piping systems shall consist of the content's name (carbon dioxide or $C0_2$) and direction-of-flow arrow. Markings shall be provided at each valve; at wall, floor or ceiling penetrations; at each change of direction; and at not less than every 20 feet or fraction thereof throughout the piping run.

M201.3.2.2 Fittings, joints and connections. Fittings, joints and connections shall be subject to the approval of the fire and building departments.

M201.3.2.2.1 Fittings and joints between gas supply containers and automatic shutoff valve. Joints and fittings on the supply piping or tubing between the $C0_2$ supply source and the automatic system shutoff valve shall be threaded, compression or welded.

M201.3.2.2.2 Unused connections. Unused piping or tubing connected to the supply system shall be capped or plugged. A closed valve will not be allowed in lieu of a cap or plug.

M201.3.2.2.3 Concealed connections. All fittings and joints shall be exposed and located adjacent to the supply source or points of use and shall be protected by a detector.

M201.3.2.3 Valves. Piping systems shall be provided with valves in accordance with Sections 5307.3.2.3.1 through 5307.3.2.3.4.

M201.3.2.3.1 Pressure relief valves. Pressure relief valves shall be provided and piped to the outdoors.

M201.3.2.3.2 System shutoff valve. An automatic system shutoff valve shall be provided as near to the supply pressure regulator as possible and shall be designed to fail to a closed condition closing on loss of electrical power to the valve and gas detection. Additional automatic shutoff valves may be provided at each point of use. Automatic shutoff valves shall be designed and located so that all phases (i.e., gas, liquid and solid) of carbon dioxide ($C0_2$) will not interfere with the operation of the device.

M201.3.2.3.3 Appliance shutoff valves. Each appliance shall be provided with a shutoff valve within 3 feet of the appliance. All shutoff valves shall be capable of being locked or tagged in the closed position for servicing.

M201.3.2.3.4 Accessibility and identification. Valves and controls shall be readily accessible at all times. Normal and emergency system shut-off valves shall be clearly identified. All valves shall be designed or marked to indicate clearly whether it is open or closed.

M201.3.3 Venting. Venting of gases shall be directed to an approved location outside the building. Insulated liquid carbon dioxide systems shall have pressure relief devices vented in accordance with NFPA 55.

M201.4 Protection from damage. Carbon dioxide systems shall be installed so the storage tanks, cylinders, piping and fittings are protected from damage by occupants or equipment during normal facility operations.

M201.5 Required protection. Where carbon dioxide storage tanks, cylinders, piping and equipment are located indoors, rooms or areas containing carbon dioxide storage tanks, cylinders, piping and fittings and grow room/areas where carbon dioxide is released and can collect shall be provided with an emergency alarm system in accordance with Section 5310.5.1.

M201.5.1 Emergency alarm system. An emergency alarm system shall comply with all of the following:

1. Continuous gas detection shall be provided to monitor areas where carbon dioxide ($C0_2$) can accumulate. Detection equipment shall be provided to indicate carbon dioxide ($C0_2$) levels in each grow cultivation area/room and interior carbon dioxide ($C0_2$) storage location.

2. Detectors shall be:
   a. listed or approved devices
   b. permanently mounted
   c. installed at a height of no more than 48 inches above the floor or as approved by the fire code official
   d. directly connected to building electrical supply and fire alarm systems and protected from accidental disconnection or damage
   e. auto calibrating and self "zeroing" devices are not permitted unless they can be zeroed and spanned
   f. located within manufacturers specified detection range for each point of use and storage location

3. Activation of the emergency alarm system shall initiate amber strobes and audible hams provided in the vicinity of each interior storage container, cylinder or tank and at each point of release. Additional amber strobes and audible hams shall be placed at the entrances to below grade locations and confined spaces. The notification devices shall be rated a minimum of 80cd for a visible effect and 75 DBA for an audible effect and shall be mounted in accordance with NFPA 72 requirements. Provide audible visual devices at the following locations:

- Inside an interior storage room/area and outside the room/area at each entrance.
- Inside grow cultivation room/areas.

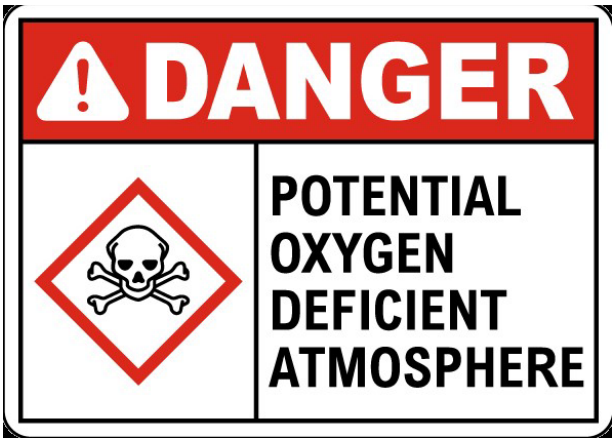
4. Local alarm set points shall be set at:
   a. 5,000 PPM- Latching Alarm
   - Visual and audible notification in approved locations at room or area in alarm
   - Activation of automatic system shut off valve
   - Evacuate the room in alarm and contact a qualified service company to investigate and address the condition.
   - Reset of the emergency alarm to be conducted by qualified personnel.

5. Signage shall be required adjacent to each horn/strobe as follows.

Storage area/room: "DO NOT ENTER WHEN LIGHT IS FLASHING - CARBON DIOXIDE LEAK DETECTED"

Grow cultivation room/area dispensing: "FLASHING LIGHT MEANS CARBON DIOXIDE LEAK DETECTED- EVACUATE ROOM"
The sign shall have a minimum l-inch block lettering with a minimum *Y4* -inch stroke. The sign shall be on a contrasting surface of black on yellow and shall be of durable construction.

Signage on entrance doors to grow cultivation and storage rooms: Signage shall be provided at entrance doors to each grow cultivation room/area and at each entrance to storage rooms/areas:



NFPA 704 placards for simple asphyxiates shall also be provided at the exterior main entrance and at each entrance to storage rooms/areas.

6. A minimum of one portable carbon dioxide ($C0_2$) meter shall be in use during business hours.

M201.6 Transfilling. Filling and transfilling of gases between storage containers, cylinders and tanks and delivery vehicles shall be performed by qualified personnel using equipment and operating procedures in accordance with CGA P-1. Interior storage containers, cylinders and tanks shall be filled via remote fill ports on the exterior of the building at grade level. Exterior remote fill ports shall be fitted with a vent line to the outside. Delivery personnel shall have access to interior storage areas to inspect valves and piping prior to initiating filling operations.

M201.7 Training. All employees shall receive annual training in hazard identification, physical properties, inspections, and emergency procedures. Training records shall be maintained on site and be available to inspectors upon request.

SECTION M301 - CARBON DIOXIDE ($C0_2$) GAS ENRICHMENT SYSTEMS USING A NATURAL GAS BURNER IN PLANT GROWING (HUSBANDRY) APPLICATIONS

M301.1 General. Natural gas burners that are utilized to generate carbon dioxide ($C0_2$) in plant growing (husbandry) applications shall comply with Sections M301.2 through M301.6. A mechanical exhaust system shall be provided as required by the *International Mechanical Code.*

M301.2 Permits. Permits shall be acquired.

M301.3 Equipment. Natural gas burners shall be listed, labeled and installed in accordance with the manufacturer's installation instructions. Piping systems, combustion and ventilation air and venting for natural gas appliances shall be designed and installed in accordance with approved standards, the International Fuel Gas Code and manufacturer's recommendations.

M301.4 Required protection. Where natural gas burners are located indoors for carbon dioxide ($C0_2$) enrichment, grow room/areas shall be provided with an emergency alarm system in accordance with Section 5311.4.1 and carbon monoxide detection in accordance with Section 5311.4.2.

M301.4.1 Emergency alarm system. An emergency alarm system shall comply with all of the following:

1. Continuous gas detection shall be provided to monitor areas where carbon dioxide ($C0_2$) can accumulate. Detection equipment shall be provided to indicate carbon dioxide ($C0_2$) levels in each grow cultivation area/room.

2. Detectors shall be:

    a. listed or approved devices
    b. permanently mounted
    c. installed at a height of no more than 48 inches above the floor or as approved by the fire code official
    d. directly connected to building electrical supply and fire alarm systems and protected from accidental disconnection or damage
    e. auto calibrating and self "zeroing" devices are not permitted unless they can be zeroed and spanned
    f. located within manufacturer's specified detection range for each point of release

3. Activation of the emergency alarm system shall initiate amber strobes and audible horns provided in each room/area where carbon dioxide (CO_2) can accumulate. Additional amber strobes and audible horns shall be placed at the entrances to below grade locations. The notification devices shall be rated a minimum of 80cd for a visible effect and 75 DBA for an audible effect and shall be mounted in accordance with NFPA 72 requirements. Provide notification devices at the following locations:
    - Inside grow cultivation room/areas.

4. Local alarm set points shall be set at: 5,000 PPM- Latching Alarm
    - Visual and audible notification in approved locations at room or area in alarm
    - Activation of the automatic natural gas control valves to each burner to a closed position stopping the generation of carbon dioxide (C02) • Evacuate the room in alarm and contact a qualified service company.
    - Reset of emergency alarm to be conducted by qualified personnel.

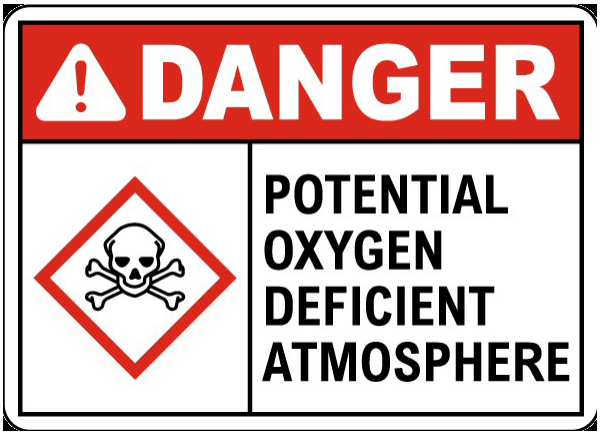
5. Signage will be required adjacent to each horn/strobe as follows:

Entrance to below grade location: "DO NOT ENTER WHEN LIGHT IS FLASHING- CARBON DIOXIDE LEAK DETECTED"

Grow cultivation room/area dispensing: "FLASIDNG LIGHT MEANS CARBON DIOXIDE LEAK DETECTED- EVACUATE ROOM"

The sign shall have a minimum l-inch block lettering with a minimum 1.4 -inch stroke. The sign shall be on a contrasting surface of black on yellow and shall be of durable construction.

Signage at entrance doors: Signage shall be provided at entrance doors to each grow cultivation room/area:



NFPA 704 placards for simple asphyxiants shall also be provided at the exterior main entrance.

6. All carbon dioxide ($C0_2$) burner systems shall shut down in the event of a loss of electrical power to the carbon dioxide ($C0_2$) detectors.

7. A minimum of one (1) portable carbon dioxide ($C0_2$) meter shall be in use during business hours.

M301.4.2 Carbon monoxide (CO) detection.

1. Carbon monoxide (CO) gas detection shall be provided to monitor products of combustion continuously.

2. Detectors shall be:
   a. listed or approved devices
   b. permanently mounted
   c. Installed per manufacturer's recommendations and directions

d. directly connected to building electrical supply and fire alarm systems and protected from accidental disconnection or damage

3. CO detection shall be at set at 35 PPM and upon activation shall initiate the following:

- Close the automatic valve to each burner
- Activate the mechanical exhaust system

4. All carbon dioxide ($C0_2$) venting burner systems shall shut down in the event of a loss of electrical power to the carbon monoxide (CO) detectors.

5. A minimum of one (1) portable carbon monoxide (CO) meter shall be in use during business hours.

M301.5 Acceptance testing. Appliances and equipment shall not be placed in operation until after the detectors, notification devices, automatic gas control valves and mechanical exhaust system have been tested by a qualified service company.

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M301.6 Training. All employees shall receive annual training in hazard identification, physical properties, inspections, and emergency procedures. Training records shall be maintained on site and be available to inspectors upon request.

M400 Enforcement Enacted. All of the Marijuana related regulations will be made retroactive on existing facilities and will have 6 months from the date of adoption of these amendments to comply with all of the above stated Marijuana regulations.

Adopt **APPENDIX CHAPTER X** as follows:

APPENDIX X EXCAVATION AND GRADING

Adopt **APPENDIX CHAPTER X** as written in the 2024 International Residential Code Amendments

2024 INTERNATIONAL PLUMBING CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Plumbing Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 105 - PERMITS

Delete section 105 in its entirety and replace with IBC Section 105 Permits

CHAPTER 3 GENERAL REGULATIONS

SECTION 305 – PROTECTION OF PIPES AND PLUMBING SYSTEM COMPONENTS

Delete 305.4 in its entirety and replace with the following:

305.4 Freezing. In localities having a winter design temperature of 32 Degrees Fahrenheit or lower as shown in Table R301.2 (1) of the 2024 IRC for severe climate zone, a water, soil or waste pipe shall not be installed outside of a building, exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation, heat or burial. Outside water and soil or waste pipe shall be installed not less than 6 inches below the frost line. The Building Department is not responsible for the inspection of the protection of the water, soiled or waste outside of the perimeter of the building.

Delete 305.4.1 in its entirety and replace with the following:

Building sewers that connect to a private sewage disposal system shall be installed in accordance with regulations promulgated by the State of Colorado and the Environmental Health Department

CHAPTER 9 VENTS

SECTION 903 - VENT TERMINALS

Delete Section 903.1.1 in its entirety and replace with the following:

903.1.1 Roof extension. All open vent pipes which extend through a roof shall be terminated at least 6 inches (152.4 mm) above the roof or 6 inches (152.4 mm) above the anticipated snow accumulation whichever is greater.

2024 INTERNATIONAL MECHANICAL CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:
101.1 Title. These provisions shall be known as the Mechanical Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 105 – PERMITS
Delete section 105 in its entirety and replace with IBC Section 105 Permits

CHAPTER 3 GENERAL REGULATIONS

SECTION 303 – EQUIPMENT AND APPLICANCE LOCATION

Add the following
303.1.1 Carbon Monoxide Alarm Requirements. Installation of Carbon Monoxide alarm shall be installed as written in the 2024 IRC Section R315.3.1.

Add the following Item Number 6 for Section 303.3:
303.3 Prohibited locations. 6. LPG appliances shall not be installed in a pit, basement, or crawl space where unburned fuel may accumulate unless an approved sensing device, with a solenoid shut off on the gas line is installed and a daylighted drain is installed. If the appliance is installed in a crawl space it must have a pad poured for the daylighted drain in addition to the above mitigation. The pad shall be a minimum of 8'x 8'.

CHAPTER 9 - SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

SECTION 903 – FACTORY-BUILT FIREPLACES

Add the following sentence to **903.1 General.**:
Every new installation of a solid fuel-burning, vented decorative appliance or room heater shall meet the most stringent emission standards for woodstoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission as of the time of installation of the appliance or room heater. (Effective January 1, 1991 – CC90-617.)

Delete 903.3 in its entirety and replace with the following:
903.3 Unvented gas log heaters. Unvented gas log heaters or any unvented room heaters are prohibited.

Add the following:
903.5 Auxiliary Emergency Shutoff Valve. All-natural gas or LPG appliance shall have an auxiliary emergency shutoff valve installed within close proximity of the appliance and not closer than 12" to the appliance for emergency isolation purposes.

2024 INTERNATIONAL FUEL GAS CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 - GENERAL

Delete section 101.1 Title and replace with the following:
101.1 Title. These provisions shall be known as the Fuel Gas Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 105 - PERMITS

Delete section 105 in its entirety and replace with IBC Section 105 Permits

404.12 Minimum burial depth.
Replace 12 inches with 18 inches

2024 INTERNATIONAL ENERGY CONSERVATION CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:
101.1 Title. These provisions shall be known as the Energy Conservation Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

IECC ADDOPTED APPENDICIES

The following Appendix Chapters to the 2024 International Energy Conservation Code are hereby adopted and enforced by Clear Creek County, Colorado:

Appendix RE Electric Vehicle Charging

Appendix RK Electric Ready Provisions

Appendix RD Electrical Energy Storage

2024 INTERNATIONAL EXISTING BUILDING CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:
101.1 Title. These provisions shall be known as the Existing Building Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 104 – DUTIES AND POWERS OF CODE OFFICIAL

Delete 104.2.4 Modifications and replace with the following.
104.10 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of this code, the *code official* or a preservation commission designated by the authority having jurisdiction shall have the authority to grant modifications for individual cases on application of the owner or owner's authorized representative, provided that the *code official* or preservation commission shall first find that special individual reason makes the strict

letter of this code impractical, the modification is in compliance with the intent and purpose of this code and such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Building Department.

SECTION 105 - PERMITS

Delete section 105 in its entirety and replace with IBC section 105

SECTION 110 – CERTIFICATE OF OCCUPANCY

Add section 111.3.1 Validity.
110.3.1 Validity. Temporary certificate of occupancy shall be valid for 30 days. Extensions may be granted as allowed by the building official. Fees shall apply as set forth building fee schedule. If the TCO expires prior to certificate of occupancy being issued, temporary certificate of occupancy fees will be due for the period of time up to the certificate of occupancy issue date.

2024 INTERNATIONAL SWIMMING POOL AND SPA CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:
101.1 Title. These provisions shall be known as the Swimming Pool and Spa Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as “this code”.

SECTION 105 - PERMITS

Delete section 105 in its entirety and replace with IBC section 105

2024 INTERNATIONAL FIRE CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Fire Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 103 – CODE COMPLIANCE AGENCY

Delete section 103.1 Creation of agency and replace with the following:

103.1 Creation of agency. Fire Authorities and Fire Protection Districts having jurisdiction within the Clear Creek County are hereby recognized, and the official in charge thereof shall be known as the fire code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code within the boundaries of their respective jurisdictions as defined by interagency agreements.

2025 COLORADO WILDFIRE RESILIENCY CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – SCOPE AND GENERAL REQUIREMENTS

Delete section 101.1 Title and replace with the following:

101.1 Title. These regulations shall be known as the Colorado Wildfire Resiliency Code as adopted by Clear Creek County, hereinafter referred to as "this code."

SECTION 102 – APPLICABILITY

Delete exemption 8 of section 102.10 and replace with the following:

6. Accessory structures and buildings of an accessory character classified as Utility and Miscellaneous Group U (including Agricultural Structures) not provided with electricity or fuel burning appliance and located more than 50 feet from a structure containing occupiable or habitable space.

Delete exemption 10 of section 102.10

SECTION 103 – CODE COMPLIANCE AGENCY

Delete section 103.1 Creation of agency and replace with the following:

103.1 Creation of agency. The Building Department is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION 106 – FEES

Delete section 106 and replace with section 109 of the IBC

SECTION 108 – CONSTRUCTION DOCUMENTS

Add section 108.1

108.1 Construction Documents. Construction Documents shall be as required by section 106 of the IRC for detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height or section 107 of the IBC for all other buildings or structures.

SECTION 109 – PERMITS

Add section 109.1

109.1 PERMITS. Permits shall be as required by section 105 of the IRC for detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height or section 105 of the IBC for all other buildings or structures.

SECTION 303 - MAPPING

Add section 303.1.3

303.1.3 Wildland-Urban Interface Areas. Wildland-Urban interface areas shall be as designated on the most recent Colorado Wildfire Resiliency Code Map as adopted by the Colorado Wildfire Resiliency Code Board.

SECTION 401 – GENERAL

Delete exemption 1 of section 401.1 and replace with the following:

1. Accessory structures and buildings of an accessory character classified as Utility and Miscellaneous Group U (including Agricultural Structures) not provided with electricity or fuel burning appliance and located more than 50 feet from a structure containing occupiable or habitable space.

END DELETIONS AND ADDITIONS

Exhibit 2

Clear Creek County Roadway Design and Construction Manual

Chapter 4

Chapter 4 – Driveway Permit Requirements

4.1 Purpose and Intent

Driveway permits must be obtained whenever an individual proposes to construct and connect a driveway to an existing public or private roadway in unincorporated Clear Creek County. The reason for requiring driveway permits is to mitigate hazards to public health, safety and welfare; to ensure the design of the connections meets the specifications in these regulations allowing for emergency vehicle access; and for proper drainage. Driveway permits are also intended to ensure adequate reconstruction and/or repair of any damage caused to the County right-of-way or roadway during construction of the connection. Driveway permits shall be obtained before building permits may be issued. This standard supersedes Resolution 00-24.

4.2 Permits and Performance Guarantees

Individuals proposing to construct a driveway connection to an existing County roadway shall obtain an approved driveway permit as provided in Section 4.3. Before undertaking any excavation, a Performance Guarantee may be required.

4.3 Procedures/Requirements for Issuance of Driveway Permits

Procedures for obtaining Driveway Permits are detailed in Section X102.4 of Appendix Chapter X of the Clear Creek County International Code Series.

1. Fee scheduling will be set for various permits, inspections, and on-site approvals. Permit fees will be periodically reviewed by the County for adequacy, and when appropriate the fee schedule will be revised.
2. The property owner/owners are responsible for obtaining all necessary easements and/or CDOT Access permits prior to the application of the Driveway Permit. A copy of the easement and/or CDOT Access permit must be attached to the permit application.
3. The permit holder assumes the responsibility to have buried gas lines, telephone cable and other utilities located by contacting the Utility Notification Center of Colorado.
4. Applicant represents all parties in interest, and affirms that the driveway approach is to be constructed for the purpose of securing access to the described property.
5. Permit holder or authorized agent shall furnish all labor and materials, perform all work, and pay all costs in connection with the construction requested.
6. The permit holder shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this code, and the permit holder shall engage consultants, if required, to provide professional inspections on a timely basis. In the event of changed conditions, the permit holder shall be responsible for providing revised plans for approval.
7. Permit holder shall protect the traveling public during the installation of the driveway and building site excavation with approved traffic control, as outlined by Part VI of the Manual of Uniform Traffic Control Devices. Right-of-way permits shall be obtained

whenever a developer, contractor, owner, utility company or other individual proposes to install utility lines, culverts or any other work within the County right of way.

8. The County shall be held harmless against any action for personal injury or property damage sustained by reason of the exercise and issuance of the permit.
9. Failure to comply with any portion of these driveway design standards and permit procedures shall be sufficient grounds for denial, suspension, or revocation of any necessary permit. Financial penalties may also be imposed.

4.3.1 Submittal Requirements for Driveway Permits:

Submittal requirements for Driveway Permits are detailed in Section X102.4.1 of Appendix Chapter X of the Clear Creek County International Code Series.

4.3.2 Action on Driveway Permits:

Applications for driveway permits shall be submitted to the Site Development Department for review and action. Approval shall be granted only if the proposed driveway or roadway connection meets the specifications in these regulations and the required fee has been paid. Approval of a driveway permit may be accompanied by any condition deemed reasonable by the Site Development Department to ensure protection of health, safety and welfare and compliance with these regulations. Applications for driveway permits must be submitted at least 15 calendar days prior to planned commencement of construction, and construction cannot commence without permit approval.

4.3.3 Construction Specification for Driveway Work:

All work undertaken to connect driveways to existing County roadways shall conform to the standards contained in this Manual as well as Appendix Chapter X of the Clear Creek County International Code Series. In the event of a discrepancy between the regulations, the more stringent requirements shall apply.

4.3.4 Construction Schedule for Driveway Work:

As part of its approval of any driveway permit, the Site Development Department shall also approve a construction schedule. The approved schedule shall not be changed after the permit is issued without the written consent of the Site Development Department and approved by the Road and Bridge Department.

4.4 Supervision of Driveway Work

All driveway work shall be completed under the supervision of the permit holder. The permit holder shall at all times conduct work within County right-of-way so as to avoid obstruction and hazard to the traveling public. Materials necessary for construction of driveway access points to the County roadway shall not be stored on the County right-of-way at any time. The roadway and roadside area where driveway access work has been performed shall be thoroughly cleared of all debris and extraneous material and shall be restored to a condition equal to or better than the original when construction is concluded.

4.5 Inspection and Testing of Driveway Work

Adequate inspections ensure compliance with County requirements. In-progress inspections of all elements of work will eliminate the need of extensive post testing. At least one inspection at the conclusion of construction is required. In making this inspection, the Site Development Department shall check for compliance with these regulations, specific permit conditions and approved plans, and also for adequate cleanup of roadway surfaces and the right-of-way. Certificates of Occupancy shall not be issued by the Building Department until driveway work is determined to be satisfactory by the Site Development Department.

Any work or material determined not to conform to these regulations as well as any pavement failures or broken asphalt, damaged signs or fencing, and remaining debris either in the roadway or adjacent property, or improper drainage reported to and observed by the Site Development Department shall be brought to the attention of the permit holder both verbally and in writing. Any work in which untested or unaccepted materials are used shall be ordered removed and replaced at the permit applicant's expense. Any required corrective work shall be made at the permit applicant's expense and shall be done to the satisfaction of the Site Development Department. If immediate corrections are not made, further project construction shall be stopped.

In determining whether or not the driveway work done by the permit holder is acceptable, the Site Development Department may consult with the Road and Bridge Department. If a determination is made that testing by a third party is required, the number and location of the tests shall be determined by the Site Development Department and the cost of such testing shall be paid by the permit holder. If the Site Development Department determines testing by an independent lab is necessary, the cost of such testing shall be paid by the permit applicant.

4.6 Responsibility for Rework on Driveway Connections

The permit holder shall be fully responsible for the maintenance and correction of any faulty construction, including unstable road cuts and potholes developed during the construction period and for a period specified in Chapter 5, Section 5.10. All deficiencies shall be resolved to the satisfaction of the Road and Bridge Department. Failure to do so could be cause for denial of future permits.

4.7 Driveway and Parking Areas

4.7.1 Requirement for Driveway Permit:

Whenever a property owner, developer, contractor or other individual proposes to connect a driveway or parking area to the public roadway, they must obtain approval for a Driveway Permit from the Site Development Department prior to commencing construction.

4.7.2 Requirement for Grading Permit:

When road grading of an existing road on private property is proposed the individual responsible for the construction must obtain approval for a grading permit from the Site Development Department prior to commencing construction.

4.7.3 Standards for Driveway Design:

A driveway is defined as an accessory for vehicles providing a connection from a public or private roadway to either individual single-family residences or to a parking area serving multi-family residences; commercial businesses; recreational, institutional, or industrial land uses. For purposes of this regulation only, single family residences shall be defined as individual detached houses or duplexes (two single family residences) either of which are on individual platted lots or on footprint lots with surrounding property held in common ownership. If an accessway serves more than five (5) individual single-family residences, it shall be classified as a roadway rather than a driveway and must meet the County's standards and requirements for road construction. A driveway may provide access to a common parking area for multi-family residential development if the development meets all Clear Creek County regulations for multi-family development. An accessway serving a working ranch or farm and any associated residence regardless of length shall be considered a driveway, and shall meet only such standards as are necessary for public health and safety and as outlined in this section.

A. Location of Driveways Relative to Intersections:

Driveways shall be placed so the following minimum distances are maintained to any street intersection.

Where the driveway connects to a local access or low volume road, a minimum distance of 50 feet from curve return to edge of right-of-way at the intersection shall be maintained. If the required driveway separation distance cannot be met for a T-intersection of two roads, the driveway shall be aligned as close to opposing road as possible.

Where a driveway connects to a collector or larger road, a minimum distance consisting of the left turn stacking distance plus 20 feet as measured from outside of flares, shall be maintained (see Figure 16). The left turn stacking distance shall be determined by the Road and Bridge Department based on an acceptable traffic study. If a traffic study is not available, or date provided is incomplete, the Road and Bridge Department shall estimate the length of the left turn stacking distance.

B. Spacing of Driveways:

Driveway openings shall be separated by at least 30 feet, as measured from outside of flares, or else shall be combined. More spacing may be required for traffic safety and proper traffic operation.

C. Shared Driveways:

Developers or property owners proposing the use of shared driveways shall record an easement defining the location of the driveway in a form acceptable to the County.

D. Horizontal Alignment and Horizontal Curves:

1. The dimensions of driveway widths, openings, centerline curve radii and turnout spacing shall be as shown in Table 12. Turn Out dimensions are given in Figure 23.
2. All driveways exiting onto collector roads, roadways with average daily counts greater than 700 vehicles per day, or driveways in excess of 100 feet shall be designed with a vehicle turnaround within 50 feet of the dwelling unit to avoid vehicles having to back onto the roadway when exiting (See Figure 24). Driveways serving multi family, industrial, or commercial developments shall provide a turnaround as specified in Figure 7 if the driveways dead ends.
3. Driveways serving single-family residences must be either graveled or paved. Where roads are paved, driveways serving duplexes must be paved. Where a driveway is to be graveled the surface shall be constructed of four inches of road base compacted to a minimum of 95% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180. Where driveway serving a single-family residence or duplex is to be paved, the surface shall be constructed of four inches of compacted road base and two inches of pavement that can be placed in one lift.
4. Driveways serving multifamily residences, commercial or non-residential uses must be designed in accordance with Section 2.4.3.C., with TI equaling 6.0. Single-family and duplex residences may only have one access point onto the County road system unless a minimum separation of 250 feet can be provided. Otherwise, looped driveways are not allowed. Where a lot has two different roads to provide driveway access, access shall always be onto the road with the lowest functional classification.

E. Driveway Cross Section:

1. Driveways constructed on natural slopes greater than 20% shall be super-elevated toward the cut slope as shown in Figure 13.
2. Driveways constructed on natural lateral slopes less than 20% may be crowned as shown in Figure 14.

F. Vertical Alignment and Vertical Curves:

1. Driveways shall have a maximum grade of 8% for the first 25-feet from the connection to the road.
2. Grades less than 1% are not allowed.
3. The maximum allowable grade on straight sections of driveway is 12%.
4. The maximum allowable grade on sections of driveway with a radius of less than 50 feet is 8%, as measured along the center line.

G. Cut Slopes:

1. Cut slopes may be constructed as steep as 1½:1, but only where lot line proximity or building site natural grade imposes restrictions (30% slope and greater).
2. Cut slopes steeper than 1½:1 require a stability report prepared by a Geotechnical (Soils) Engineer confirming competent slope material prior to approval from the county.
3. In areas of solid rock, slope shall not be cut steeper than 1:1. Slopes steeper than 1:1 require a stability report prepared by a Geotechnical (Soils) Engineer confirming competent slope material prior to approval from the county. Exposed rock faces shall be free of all loose material.
4. All slopes shall be made sufficiently stable to prevent failures. Steep driveway cut slopes not in solid rock, require retaining wall built to prevent slope failure.
5. Retaining walls require plan submittal and approval by the county. All retaining walls with a vertical height greater than 4 feet shall be of an engineer approved design.

H. Fill Slopes:

1. Fill slopes may be constructed as steep as 1½:1, but only where lot line proximity or building site grade imposes restrictions (30% slope and greater).
2. Fill slopes constructed at a 1½:1 slope shall be constructed so that the toe of the slope is keyed into the natural slope and/or supported by a retaining wall.
3. Retaining walls with heights greater than 4 feet shall be designed and certified by an engineer.
4. Organic materials shall not be placed in fills. Rock material with a maximum dimension greater than 12 inches shall not be buried or placed in fills.
5. Rock disposal areas are to be delineated prior to issuance of driveway and excavation permits
6. Fills shall be compacted to a minimum of 90% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180.

I. Drainage:

1. All driveway accesses from existing private or public roads, which interfere with a natural or constructed drainage course, shall provide a drainage culvert. The culvert shall be a minimum of 18” diameter, but will carry the flow of a 10-year storm event, and be positioned offset to the drainage ditch centerline, away from the traveled portion of the access road.
2. Cross road drainage will be provided at a minimum of every 800 feet or where an identifiable drainage course is defined.

3. Culverts under driveways at intersections shall be of sufficient length to properly fit the radius of flare required and shall be no more than 30 feet in length unless otherwise approved by the Road & Bridge Department.
4. Culvert inlets and outlets shall be designed to cause minimal erosion, and erodible soils shall be adequately protected by riprap, flares, or energy dissipaters.
5. All springs, seeps or bogs evidenced within the proposed driveway shall be treated with a subsurface drainage treatment approved by the county.
6. All driveway culverts shall have a minimum of 6 inches of cover unless otherwise approved by the Site Development Department.

J. Construction Plans and Specifications:

1. All work shall be performed as specified in the latest edition of these standard specifications and any referenced manuals indicated herein.
2. Geotechnical reports analyzing soil and geotechnical conditions on site and recommending how ground is to be prepared to receive fills, how fill slopes are to be designed and compacted and the design of buttress fills and cut slopes to be allowed with respect to these conditions shall be prepared by a qualified geotechnical engineer or professional geologist.
3. Grading plans and specifications shall be prepared and signed by a Professional Engineer licensed in the State of Colorado having knowledge and experience in civil engineering. It is the responsibility of the civil engineer or other qualified professional to incorporate all recommendations from the geotechnical report into the grading, drainage, erosion, and water quality control plans and specifications.

K. Fire Protection and Emergency Access:

1. Emergency access must be maintained at all times.

L. Embankments and Stabilization:

1. Fill shall be developed generally in horizontal layers of similar materials for their length and width, and compacted to a minimum of 90% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180.

M. Intersections:

1. Intersections shall meet at right angles of each other. With supporting justification, a relaxation of up to 15° can be requested from the county.
2. The portion of driveway though the right-of-way connecting the property with the physical roadway shall be the shortest perpendicular distance possible.
3. Driveways shall be sloped down and away from the road at a minimum of 2% for the length of the Right-of-Way but no less than 10 feet.

4. Driveways shall maintain a grade equal to or less than the crown slope of the road from the point where the driveway meets the road to where the driveway crosses the ditch line (Figure 15).
5. No horizontal curves shall carry onto the existing County Right-Of-Way in the design of the driveway or private road.
6. Driveways shall be designed and located to provide a minimum sight distance clear of all obstructions, natural or man-made, for at least 200 feet in either direction on local access roads and 400 feet on collector roads.

N. Signs and Delineation:

1. All signage, delineation, and mounting devices on driveway approaches, adjacent to the county roadway but within the Right-Of-Way, shall be in conformance with the Manual of Uniform Traffic Control Devices, the most recent Colorado Supplement, and the County Sign Regulations.
2. All necessary delineation must be installed prior to County approval.
3. Stop signs shall be installed at the junction of a driveway with a roadway for all driveways serving six (6) or more residential units, commercial shopping areas, or when required by the Road and Bridge Supervisor for protection of public safety.

O. Utilities:

1. Overhead utilities shall at least meet minimum vertical clearances specified by the utility company or Colorado Public Utilities Commission requirements above the driveway and in no case shall the vertical distance be less than 16 feet 6 inches.

P. Bridges:

1. See Section 2.61 and 2.62.

Q. Maintenance:

1. The property owner/owners assumes responsibility for the maintenance of the driveway approach. All snow, ice, or sleet removal from the portion of the driveway approach, including that deposited on the driveway in the course of snow removal operations by the County Road and Bridge Department, is to be done by the property owner.
2. Pushing snow from a driveway onto a County roadway is prohibited. Snow storage for driveways shall be provided on the owner's property. Use of the right-of-way for snow storage by private individuals or companies is prohibited (C.R.S. 43-5-303). The property owner/owners assumes responsibility for the replacement, maintenance, and cleaning of the culvert installed in the driveway approach (See Section 3.3.6.D.2).

3. Road & Bridge may require owners to heat tape their culvert to ensure flow during the winter months to minimize the potential of ice forming on roadways (see Chapter 6 Section 6.8.2).

R. Deviations from the Standards:

1. All new driveway construction commencing after adoption of these standards shall adhere to these driveway standards unless a deviation from the standards is granted in accordance with Appendix Chapter X of the Clear Creek County International Code Series.
2. Request for deviation from the driveway standards contained herein must be submitted to the Site Development Department in writing with appropriate justification for consideration for approval.
3. When driveways are granted a deviation to a lesser standard, building construction must meet the criteria set forth by the Wildfire Hazard Mitigation Plan.

4.7.4 Standards for Parking Areas:

A. Parking Index:

The Parking Index standards are specified in the Clear Creek County Zoning Regulations Section 10, Part 1006.1.5.

B. Parking Area Grades:

Parking areas shall have a maximum grade of 4%, and a minimum grade of 1% to facilitate drainage.

C. Surfacing of Parking Areas:

Paving is not required for parking areas and driveways serving single-family units, or for duplexes and Recreational Use Facilities with less than 20 vehicle parking spaces where the road providing access is not paved. Where roads are paved, parking areas for duplexes and recreational areas must be paved.

Unless specifically exempted above, parking areas and drives must be paved with a minimum of six inches of road base compacted to a minimum of 95% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180 and three inches of pavement; or shall be designed in accordance with Section 2.4.3.C, with TI equaling 6.0.

D. Provision for Drainage in Parking Areas:

Parking area design shall made adequate provision for drainage and prevention of erosion. Drainage from parking areas shall flow to roadside ditches or other approved drainageways. Drainage from parking areas shall not flow onto roadways. Collection points for runoff across parking areas shall be provided to minimize sheet flow.

E. Placement of Parking Areas on Fill:

If a parking area is to be placed on fill, the fill used shall be suitable material as specified by a registered geotechnical engineer. The fill shall be compacted to a minimum of 95% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180with slopes at no more than 1½:1 (H:V) and protected by rip-rap to prevent erosion from snow storage.

F. Use of Parking Area in Lieu of Meeting Driveway Grades:

In instances where construction of a single family or duplex unit is proposed, and it is not possible to build a driveway to County standards for driveway grades because of the steepness of the lot, a parking area which does meet County standards may be built adjacent to the road which provides access to the lot in lieu of meeting driveway grades. The parking area must be outside the road right-of-way and within 150 feet of the residential structure. The parking area shall be sized so, whenever possible, vehicles can be maneuvered within the parking area so they will not be backed onto the road when exiting. The minimum size for parking areas shall be 400 square feet for each unit served. Parking areas shall not be designed so vehicles are parked end-to-end or parallel to the road, but must allow for cards to be parked side-by-side.

G. Snow-Stack Storage:

Snow storage for parking areas shall be provided on the associated private property. Use of the right-of-way for snow storage by private individuals or companies is prohibited (C.R.S. 43-5-301).

H. Parking Dimensions:

Parking space dimensions and parking lot layout are per Figure 17.

4.8 Landscaping and Erosion Control

Whenever roadway or bridge construction results in earth disturbance, revegetation and reforestation is required per the Clear Creek County Best Management Practices Manual. The site plan shall be approved by the Site Development Department and shall be completed during the first planting season after construction. Native or similar horticulture material shall be used. All areas disturbed by construction operations and not otherwise covered by structures or pavement must be seeded and otherwise treated to provide an established stand of vegetation. Cut and fill slopes must be treated to prevent erosion. Areas not disturbed by construction shall be left in their present vegetative state, except that thinning of trees may be required. In no case shall landscaping in the right-of-way or on private property impede the normal maintenance operations of the Road & Bridge Department or the normal flow and operations of traffic. Specific requirements are as follows:

Erosion Control and Environmental Mitigation Efforts for Driveway Construction:

1. The faces of cut and fill slopes shall be prepared and maintained to control against erosion.
2. This control shall consist of effective planting as a permanent control measure.
3. Permanent soil stabilization measures shall be installed within thirty (30) days after final grade is reached. Planting shall occur within the next window of opportunity should construction be completed during winter months.
4. Were cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.
5. Where necessary, check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety.
6. Preserve existing trees, shrubs and grasses where possible to prevent erosion.
7. No work may interfere with the flow of storm water.
8. Excavations shall be constructed so they are stable.
9. Storm water runoff shall be discharged from the site in quantities and at velocities not to exceed historic levels.
10. All erosion control devices shall be maintained so that they function as designed.
11. Dust emissions (wind erosion) shall be controlled.
12. Temporary erosion protection shall be installed prior to excavation.
13. All topsoil shall be salvaged and redistributed.
14. Road crossings across water courses designated as “Waters of the United States” must meet the requirements set forth by the Army Corps of Engineers for permitting before a County permit will be issued.

Table 4 – Stopping and Passing Sight Distance

Design Speed	Stopping Sight Distance	Passing Sight Distance
15	100	500
20	150	700
25	200	900
30	250	1100
35	300	1300
40	400	1500
45	500	1650
50	600	1800
55	700	1950

Table 12 – Driveway Widths

Driveway Widths				
Type of Service	Minimum Driveway Driving Surface Width	Opening Width (including flares)		Minimum Centerline Radius of Curvature
		Minimum	Maximum	
Commercial	22 feet	24 feet	*	65 feet
Residential				
Single Family:				
<200' in length	12 feet	18 feet	24 feet	40 feet
>200' in length	14 feet	18 feet	24 feet	40 feet
Serving two to five units:				
<200' in length	14 feet	20 feet	24 feet	40 feet
>200' in length	16 feet	20 feet	24 feet	40 feet
Multi-Family	22 feet	24 feet	30 feet	65 feet
	Turnout Spacing for Driveways			
	Length	Turnouts		
	< 400 feet	None		
	400 – 800 feet	One turnout at midway point of driveway		
	> 800 feet	Every 400 feet		
*To be determined at time of site plan review.				

Figure 7 – Hammerhead and Cul-De-Sac Designs

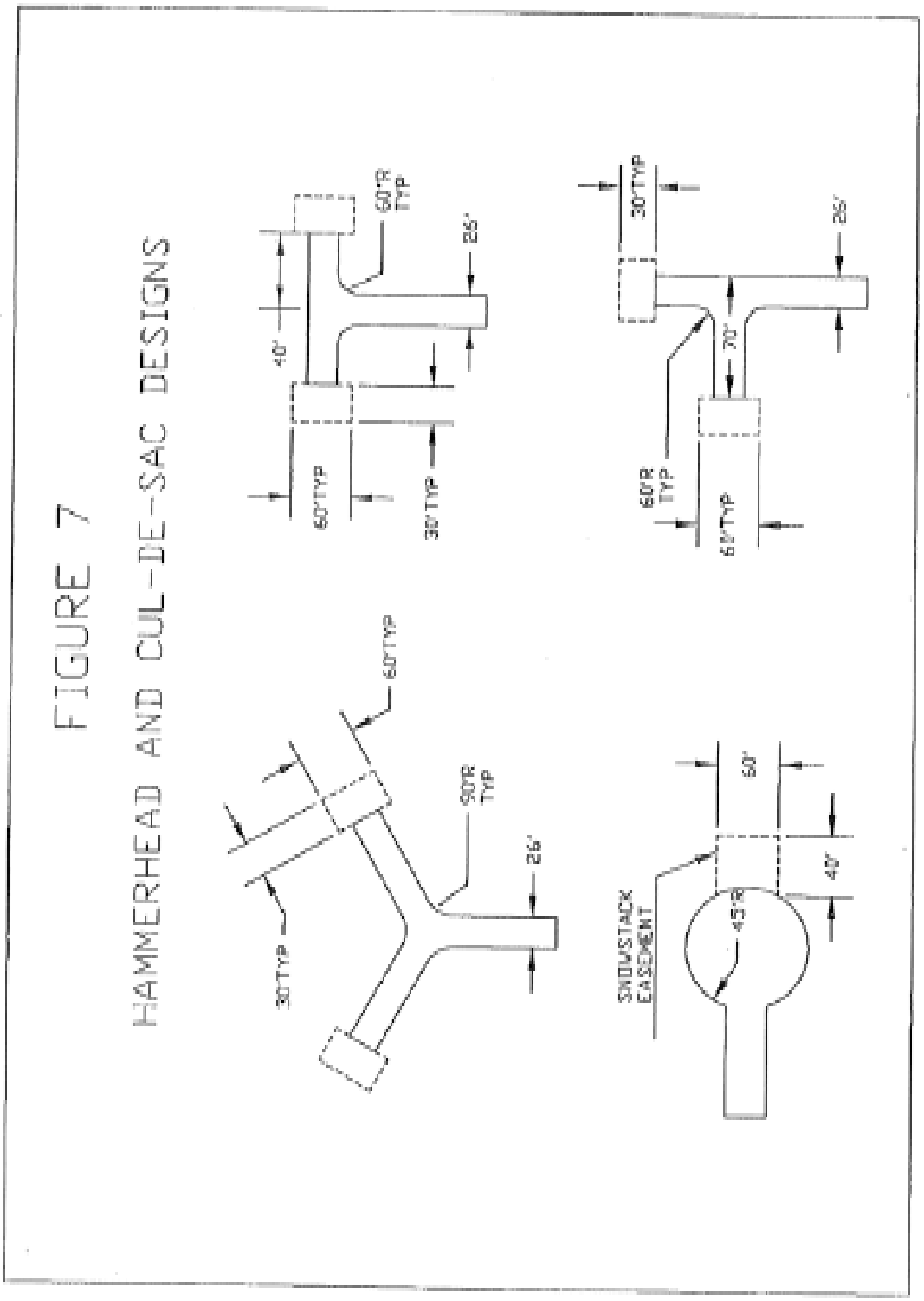


Figure 13 – Typical Cross Section Super Elevated

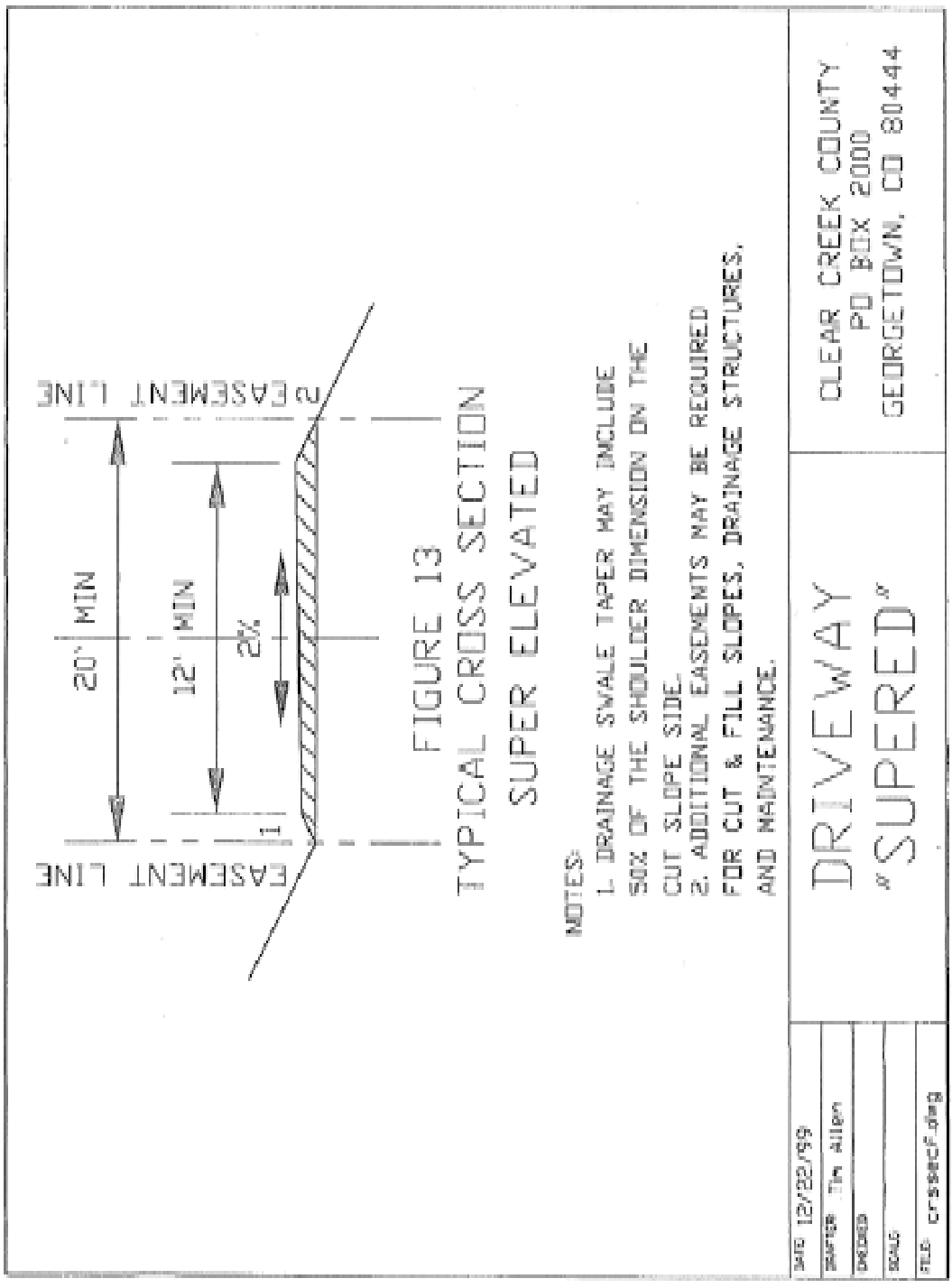


Figure 14 – Typical Cross Section of a Crowned Driveway

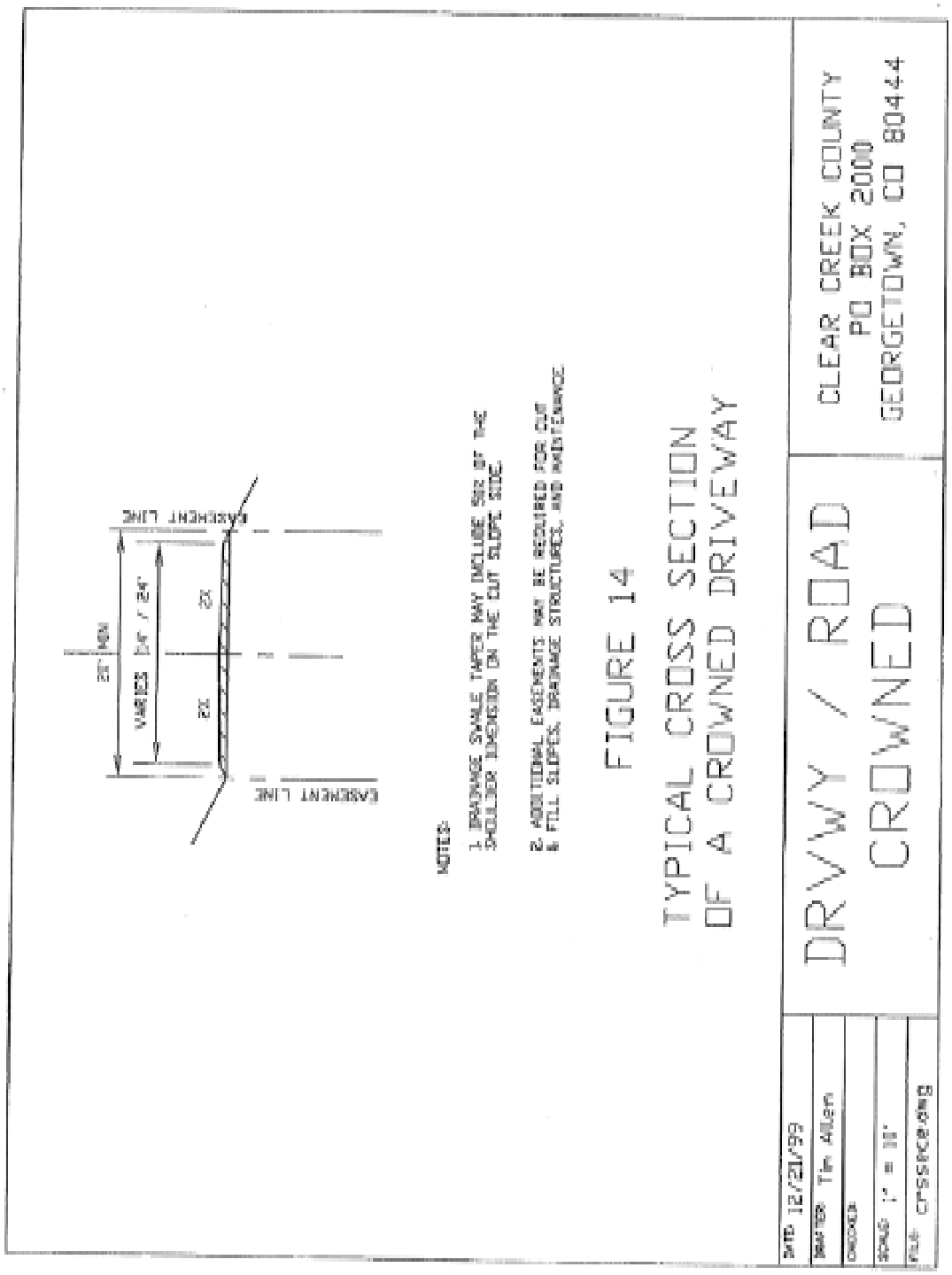


Figure 15 – Typical Cross Section of a Driveway Approach

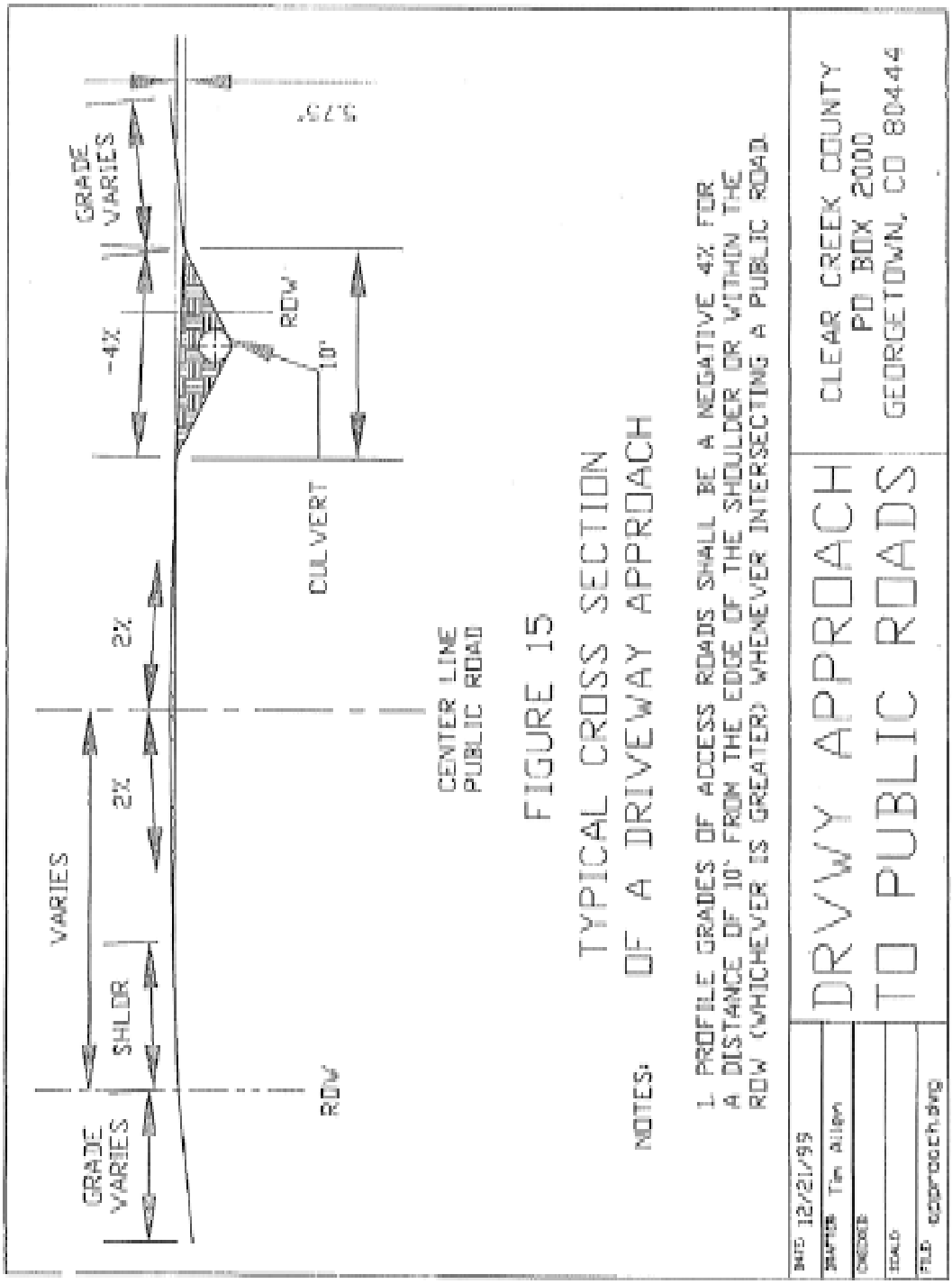


Figure 16 – Driveway/Intersection Spacing

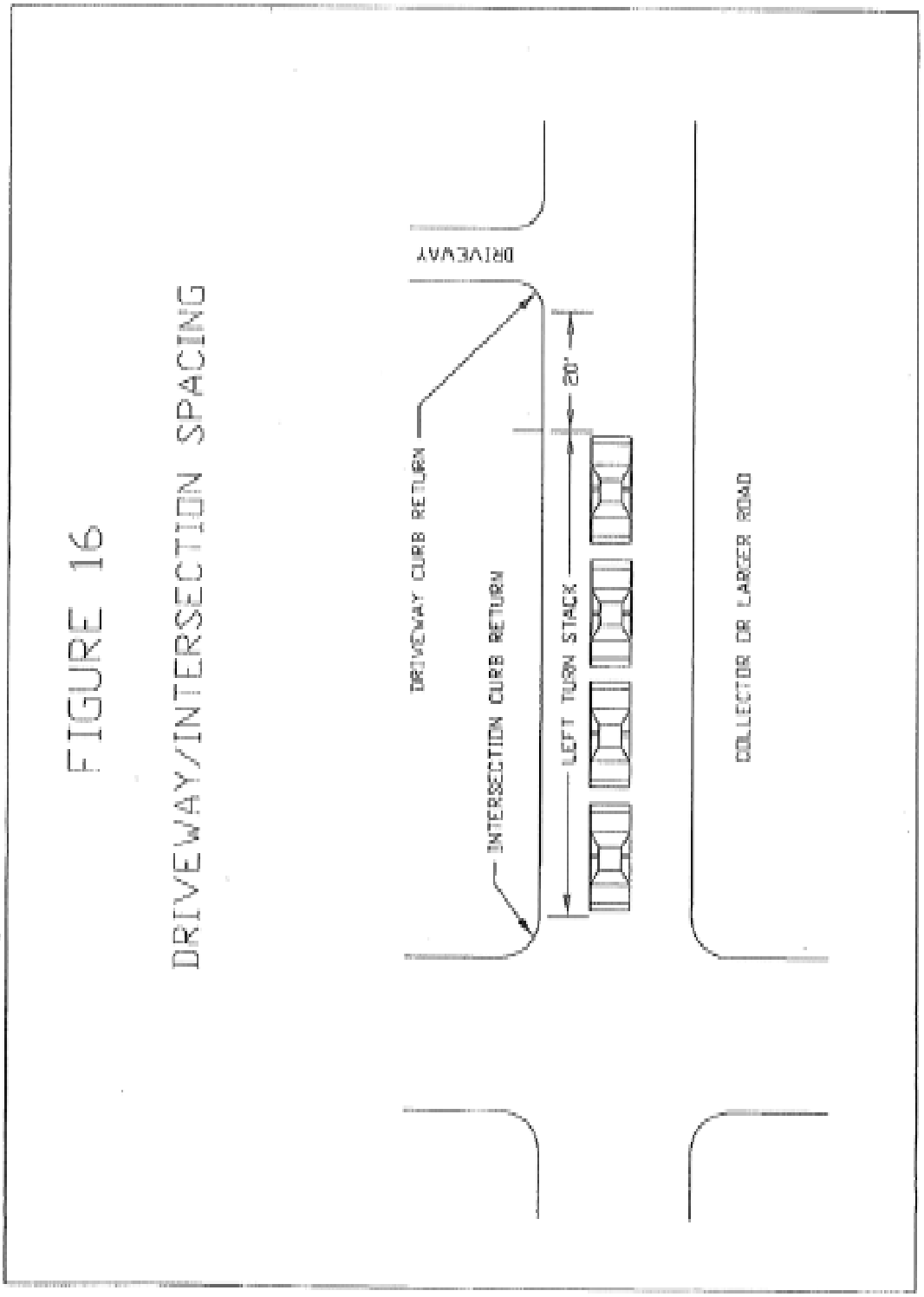
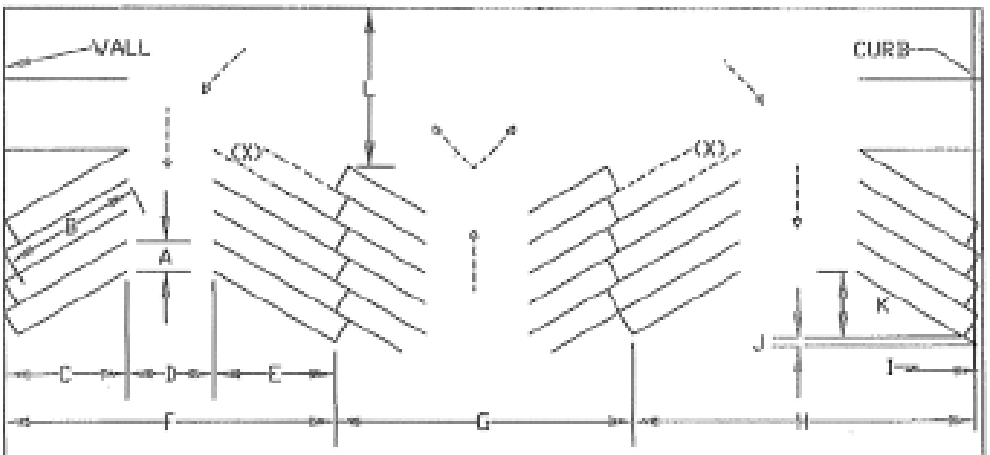


Figure 17 – Parking Layout Dimensions

FIGURE 17
PARKING LAYOUT DIMENSIONS FOR 9 FT. BY 19 FT. STALL AT VARIOUS ANGLES



X = STALL NOT ACCESSABLE IN CERTAIN LAYOUTS

DIMENSION	ON DIAGRAM	ANGLE			
		45	60	75	90
Stall Width, parallel to aisle	A	12.7	10.4	9.3	9.0
Stall length of line	B	28.0	24.2	22.3	19.0
Stall depth to wall	C	19.8	21.0	21.0	19.0
Aisle width between stall lns	D	12.0	16.0	19.0	22.0
Stall depth, interlock	E	16.6	18.7	19.0	19.0
Module, wall to interlock	F	48.4	57.7	59.0	59.0
Module, interlocking	G	45.2	53.4	57.0	59.0
Module,interlock to curbface	H	46.4	55.2	55.5	56.5
Bumper overhang (typical)	I	2.0	2.3	2.5	2.5
Offset	J	6.4	2.6	2.5	2.5
Setback	K	13.1	9.3	4.8	0.0
Cross aisle, one way	L	14.0	14.0	14.0	14.0
Cross aisle, two way	M	22.0	22.0	22.0	22.0

Figure 23 – Driveway Pull Out

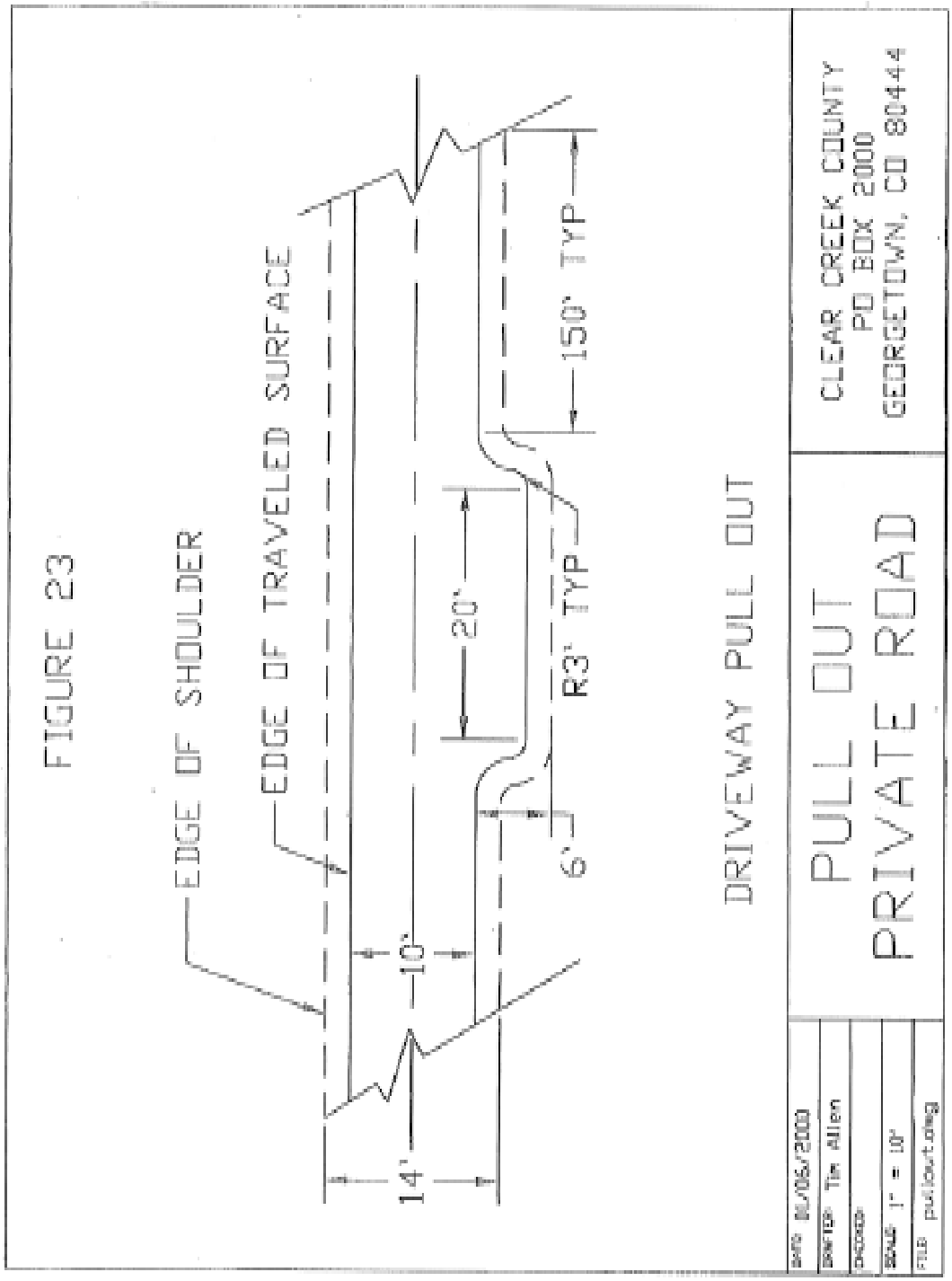


Figure 24 – Driveway Turnaround

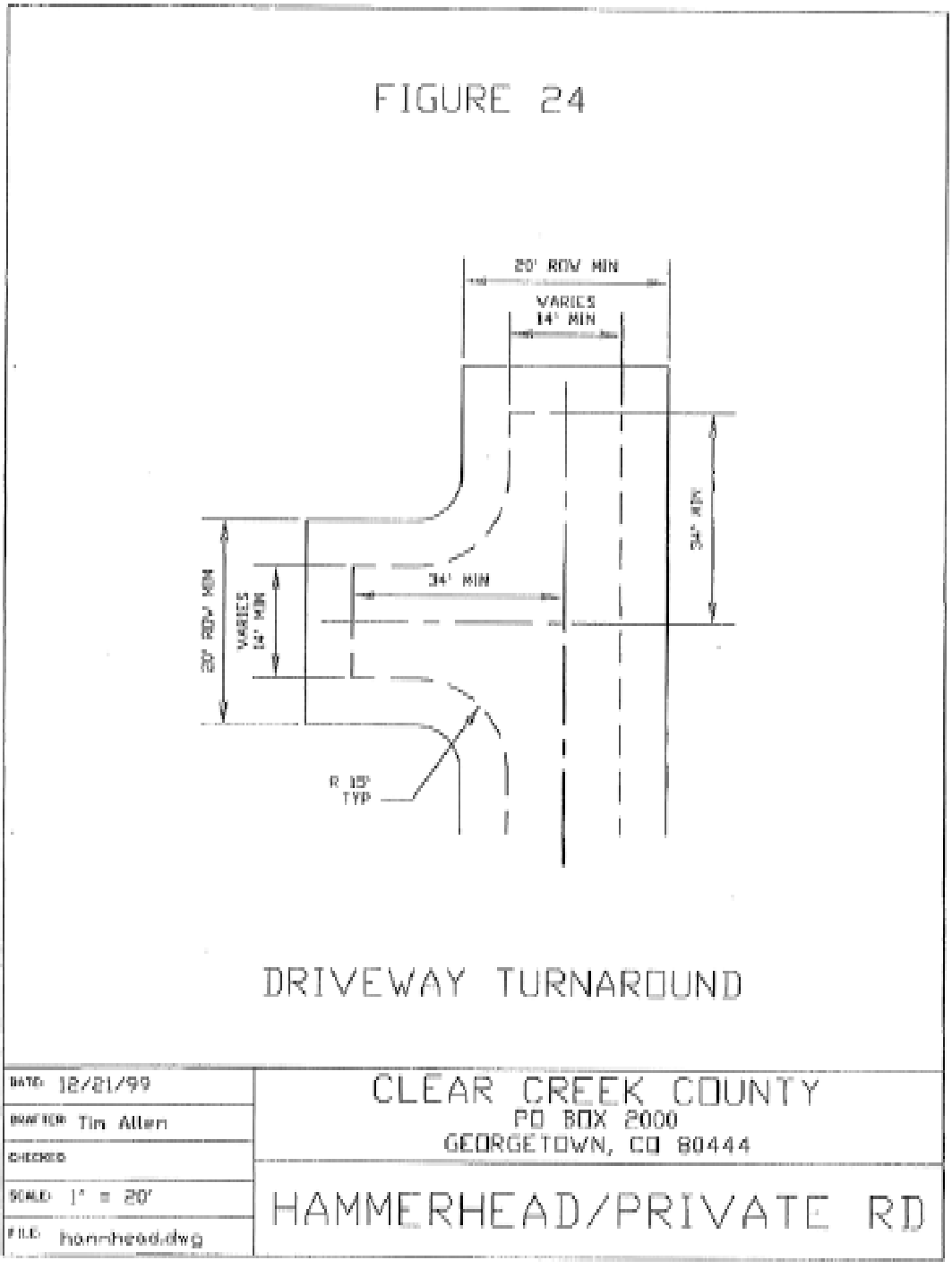


EXHIBIT 3 – International Residential and Building Code



Clear Creek County Best Management Practices Manual

Amended 11/26/12

BMP Manual Table of Contents

Topic Page

Revegetation ..... 2-4 Mulching ..... 5 Slope Netting/Erosion Control Blankets ..... 6 Tree Protection ..... 7 Surface Roughening ..... 8 Berms and Ditches ..... 9-10 Sediment Barriers ..... 11-14 Driveway and Parking Area Stabilization ..... 15-16 Infiltration Systems ..... 17-19 Slope Stabilization ..... 20-21 Inlet and Outlet Protection ..... 22 Snow Removal ..... 23 Sanding Procedures ..... 24 Sediment Basins ..... 25 Construction Fence ..... 26-27 Paving ..... 28 Appendix Managing Stormwater Around the House ..... 29-30 Water Resources and Mountain Roads ..... 30-31 Stormwater Management on Commercial Areas ... 32-33

BMP: REVEGETATION

1. METHODS: The primary purpose of revegetation is erosion control. Grass provides the best protection for the first few years. Grasses germinate and grow quickly and provide a fast and complete ground cover. Trees and shrubs are effective for long-term erosion control, but grasses are needed for initial soil protection until the slower growing trees and shrubs become well established. Decorative landscaping with trees and shrubs can be done later.

The harshness of the mountain climate, geologic conditions, and the steepness of the terrain make it difficult for plants to become established. The steeper the slope, the more difficult it is. You will have the greatest chance of success with revegetation if you keep the area and angle of disturbed slopes to a minimum.

Before you can revegetate an area, you must first roughen or loosen the soil surface so that seeds can get a foothold in it. Use a dirt rake or tiller. Broadcast the seed by hand or with a "belly grinder." Rake the soil after seeding to cover the seeds with ¼" - ½" of soil. The Site Development Inspector may require the addition of topsoil to sites having or which generate extremely rocky soils as a good seedbed is crucial to successful revegetation. Slope degree may require hydroseed/hydromulch as per the County's adopted revegetation policy below. Revegetation efforts shall provide for at least 70 percent coverage of the disturbed areas. The Site Development Inspector shall inspect the site periodically for two (2) years from the date revegetation work is completed to ensure compliance. If 70 percent coverage is not obtained, the property owner may be required to provide for additional revegetation.

The time of planting depends on whether or not you irrigate. If you choose to irrigate, you must continue irrigating until the grass is well established.

- If you do not irrigate:

  (a) Plant seeds as late as possible in the fall but before the ground is frozen and before snowfall. October and November are generally good months to seed. Seeds planted too early in the fall may germinate with fall rains and the young seedlings can then be killed by frost.

  Or,

  (b) Plant seeds in April or May as soon as possible after snowmelt.

- If you are legally allowed to irrigate:
  Plant seeds as soon as possible after grading is completed and the area can be closed to vehicle traffic. During the germination period (at least the first 2 weeks), irrigate often enough to keep the seedbed moist. You may have to water more than once per day. Water with fine spray to avoid washing away seeds and soil. Water only long enough to moisten the first 2" of soil. You can discontinue irrigating when the grass is about 6" tall.

2. MATERIALS: The following grass seed mixtures are suggested for the three major habitats encountered in higher elevations of Colorado.

- Roadside Mix – Drought tolerant grasses for roadside stabilization consisting of tall and low growing bunchgrasses for rapid establishment and long term persistence.

SEED	**VARIETY**	**(LB per ¼ Acre)**

Slender wheat grass	San Luis, Revenue	2¼
Mountain Brome	Broman	2¼
Orchard grass	Paiute, Potomac	1
Hard Fescue	Durar	1
Sheep Fescue	Covar	1
		7½

- Landscape Mix – Low growing grasses comprised of bunchgrasses and sod formers giving a varied texture for transitional areas adjacent to buildings.

SEED	**VARIETY**	**(LB per ¼ Acre)**
Chewing Fescue	Shadow	2¼
Red Fescue	Pennlawn	2¼
Hard Fescue	Durar	1½
Sheep Fescue	Covar	1½
		7½

- Meadow Mix – For wetter sites adjacent to streams and in meadow areas where there is a high water table.

SEED	**VARIETY**	**(LB per ¼ Acre)**
Meadow Foxtail		¾
Smooth Brome	Manchar	1½
Tufted Hairgrass		½
Red Fescur	Pennlawn	¾
Timothy		½
Kentucky Bluegrass	Park	1
		5

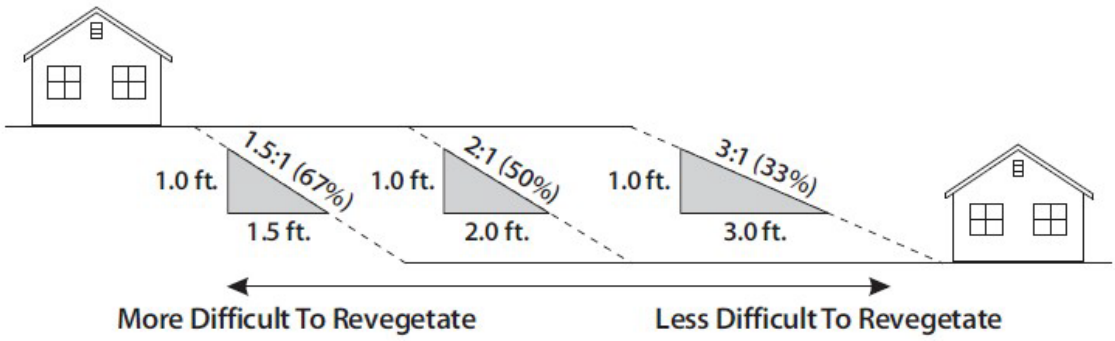
3. MAINTENANCE TIPS: Fertilizing: Apply 5 lbs./1000 sq. ft. of 16-20-0 fertilizer with 15% sulfur (ammonium phosphate sulfate) at the time of seeding. Reapply once per year in the spring until the soil is well protected with grass. Do not over fertilize. Excess fertilizer will wash away and can pollute downstream water resources.

4. TEMPORARY OR PERMANENT USE: Revegetation can be a temporary or permanent BMP.

Clear Creek County's Re-vegetation requirement is: 1) Slopes constructed at >3:1 (horizontal to vertical) can be hand seeded and mulched. 2) Slopes constructed at 3:1 to 2:1 to must be hydroseeded/hydromulched. 3) Slopes constructed at 2:1 to 1½:1 must be hydroseeded/hydromulched and have slope netting/erosion control blankets installed (or equivalent erosion control measure with the approval of the Site Development Inspector). Slopes steeper than 1½:1 are not permitted or require retaining walls.

Permanent soil stabilization measures shall be installed within thirty days after final grade is reached. If construction is completed during winter months, planting should occur within the next window of opportunity. Silt fence or brush barrier to be installed on downhill side of excavation.

Determining Steepness of Grade



METHODS:

BMP: MULCHING

1. Mulch is essential for revegetation success. Mulch protects bare soil from erosion until new vegetation grows large enough to do the job. It also holds seed and fertilizer in place, keeps soil moist and shades seedlings, helping them to become established.

Straw is the best mulch material. Apply 1 bale of straw per 1,000 sq. ft. Distribute the straw evenly so that it forms a layer 1" to 2" thick. Soil should still be visible through the straw mat. If you apply too much mulch, it may produce a mat too dense for seedlings to penetrate.

Anchor the straw by punching it into the soil every 1' to 2' with a dull, round-nosed shovel to avoid cutting the straw) or by covering it with netting (jute, plastic mesh, woven paper, or chicken wire). Fasten the netting to the ground with wire staples. Because the soils in many areas are quite hard, you may have to use netting to anchor the straw.

Wood fibers, wood chips, and pine needles are other usable mulch materials. Wood fiber mulch is applied hydraulically in a slurry that also contains the seed and fertilizer. It is suitable for use on steep slopes or large areas and must be applied by a contractor. (The application rate for wood fiber mulch is 3,000 lbs/acre.) Wood chips and pine needles can protect the soil from erosion, but they also inhibit plant growth. They can only be used where a grass cover is not desired. Apply wood chips so that the soil is completely covered. Apply pine needles in a layer 2" to 3" thick. You can save the pine needles from graded areas on your property to use as a mulch later, but you will probably have to supplement them with wood chips to achieve an adequate ground cover.

2. MATERIALS:

- Straw, wood fibers, wood chips, or pine needles.

3. MAINTENANCE TIPS:

- Replace as required.

4. TEMPORARY OR PERMANENT USE: Mulching is a temporary BMP.

BMP: SLOPE NETTING/EROSION CONTROL BLANKETS

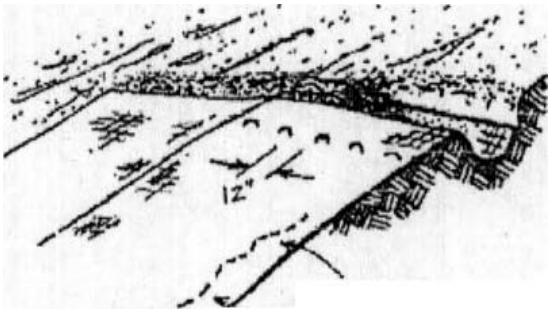
1. METHODS: Netting or erosion control blankets are often used to hold mulch in place on steeper slopes. Netting can be used by itself to protect seeds and soils from washing away during watering or rain storms. The following installation procedures should be used.

A. Starting above the mulched area, bury top end of strip of netting material in a trench at least 4" deep.

B. Fill trench with soil and tamp firmly. Fasten with a row of staples 12" apart.

C. Overlap lower end of uphill strip over next strip at least 12" and secure with staples 12" apart.

D. Continue adding strips of material until entire mulched area is covered. Overlap sides of strip at least 4" and staple as shown.



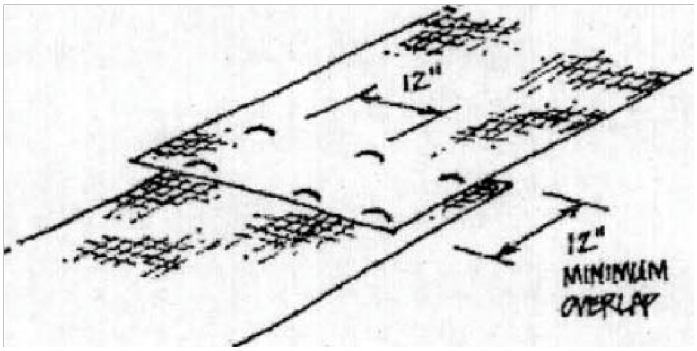
Outermost edge of mulched area

2. MATERIALS:

- Jute, excelsior, fiberglass, or plastic netting. (Do not use plastic sheeting or filter fabric.)
- Wire staples, no.11 gauge or heavier, 6" to 10" long. (Use longer staples on loose soils.)

3. MAINTENANCE TIPS:

- Inspect and repair as needed.



4. TEMPORARY OR PERMANENT USE:

- Slope netting is a temporary BMP. Remove nonbiodegradable netting and staples when vegetation is stabilized.

BMP: TREE PROTECTION

1. METHODS:

Trees and other native vegetation must be protected against construction damage. Protect vegetation by following these guidelines:

A. Do not nail boards, filter fabric, or anything else to trees.

B. Grading, paving, or placing fill within a tree's drip line are not allowed except when all of the following are met:

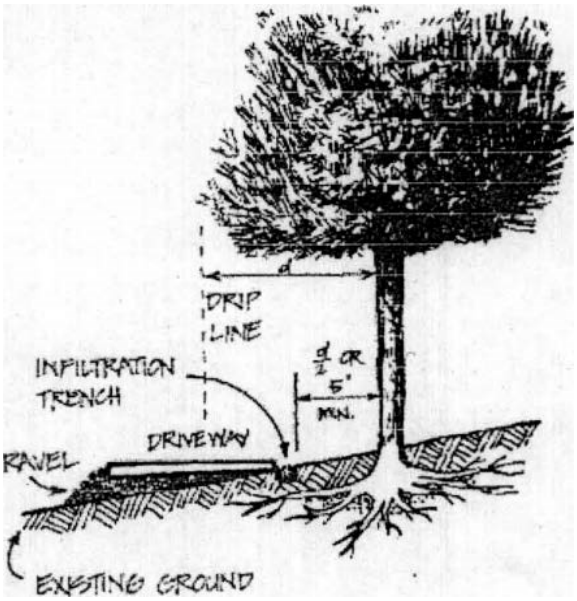
- encroachment is only on one side of tree; encroachment is no closer than 5' from the trunk or no more than ½ the distance between the drip line and the trunk;
- a drainage system that allows air and water to circulate through the root zone is placed under all fills over 1' deep within the drip line; and
- care is taken not to cut tree roots unnecessarily or to compact the soil around them.

C. Remove low tree limbs that are likely to be broken by construction activities. Cut the limb flush to the trunk or main branch. Paint cut or damaged limbs, trunks or roots with a good grade of tree paint.

D. When planting new vegetation, water frequently and protect from adverse weather conditions.

2. MATERIALS:

None required but materials such as plastic construction fence or silt fence could be used to delineate the area of non-disturbance.



3. MAINTENANCE TIPS:

Water as required and wrap if necessary.

4. TEMPORARY OR PERMANENT USE:

Tree protection can be a temporary or permanent BMP.

BMP: SURFACE ROUGHENING

1. METHODS: Surface roughening involves roughening previously disturbed soils. Surface roughening is used to reduce the speed of runoff, increase infiltration, reduce erosion, trap sediment and prepare the soil for seeding by capturing moisture for the seed. The soil surface is considered roughened if depressions are created 2 to 4 inches deep and spaced approximately 4 to 6 inches apart. Revegetation is required within 30 days of surface roughening or the next window of opportunity.

2. MATERIALS:

- Dozer, tracked machine or tiller.
- Seed, mulch and/or erosion control blankets.

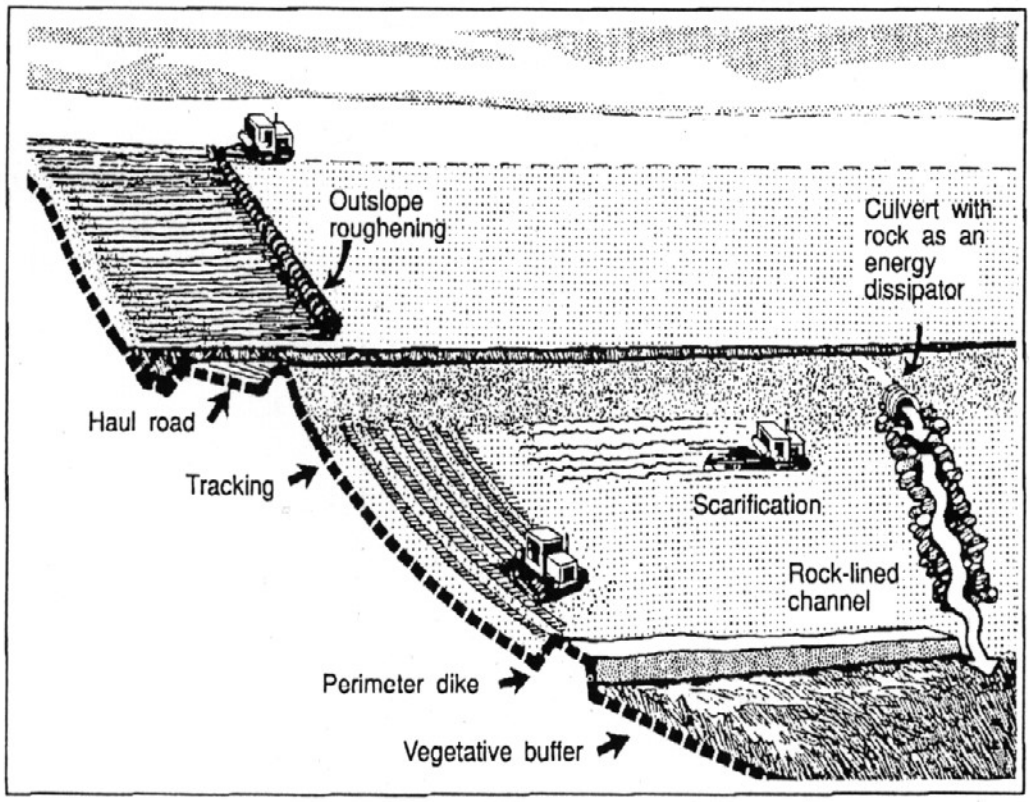
3. MAINTENANCE TIPS:

- Do not drive over areas that have been treated.
- Revegetation must occur within 30 days or next window of opportunity.

4. TEMPORARY OR PERMANENT USE:

- Surface roughening is a temporary BMP until revegetation occurs.

1. METHODS:



BMP: BERMS AND DITCHES

A berm is a ridge of compacted soil. A ditch is a small drainageway. Both of these structures have similar purposes. Berms and ditches should be used:

- Above disturbed slopes
- Around graded areas (to keep clean runoff out and to contain sediment-laden runoff within)
- Along slope benches
- Above leach fields when required.

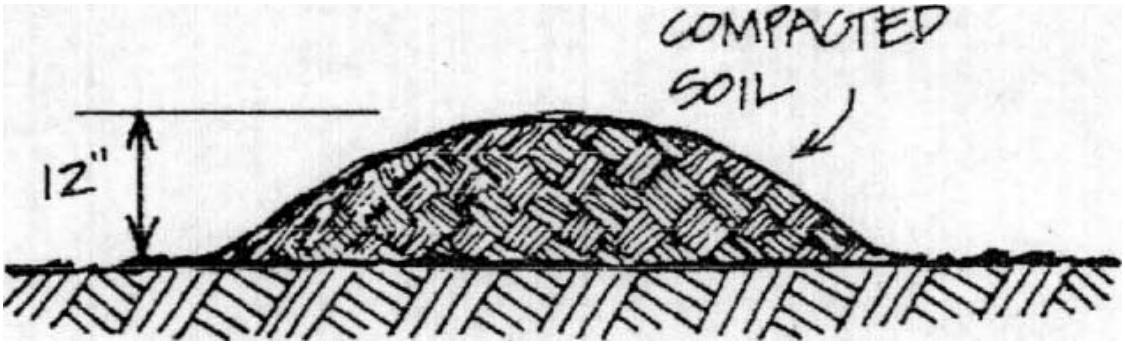
The most common use of berms and ditches is to divert upland runoff away from exposed soil to a protected outlet (such as an infiltration trench, storm drain, or stable channel). When a berm or ditch is used to contain runoff from a disturbed area, you must route the sediment-laden water to a sediment trapping device (see section on sediment basins).

The following method should be used to construct a berm:

A. Deposit a ridge of soil about 18" high with a shovel or backhoe.

B. Compact the soil by rolling or tamping until it has the dimensions shown.

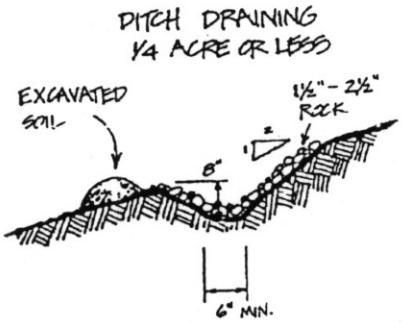
C. Vegetate permanent berms with installation of an erosion control blanket.



The following method should be used to construct a ditch:

A. If the drainage area to the ditch is ¼ acre or less, dig the channel 8" deep. If the drainage area is ¼ to 2 acres, dig the channel 12" deep. Deposit the excavated soil where it will not wash into a drainage way (such as on the downhill side of the ditch).

B. Compact the channel by tamping or rolling.



C. Line temporary ditches with rock, filter fabric, plastic sheeting or jute netting. Do not construct a temporary ditch at a slope exceeding 15%.

D. Line permanent ditches with rock, asphalt or concrete. Install a rock lining as shown here. Do not install a rock lining on a ditch steeper than 15% slope.

E. Install an outlet protector or infiltration system at the end of the ditch.

2. MATERIALS:

- Use rock, filter fabric, plastic sheeting or jute netting for temporary ditches.

1. METHODS:

- Use rock, asphalt or concrete for permanent ditches.

3. MAINTENANCE TIPS:

- Clean out upstream side of berms after snowmelt or storm event.
- Inspect dikes and ditches after each storm.
- Re-compact any loose soil on berms and ditches periodically.
- Fill gaps and low spots (such as tire tracks across a dike).
- If an unlined channel is eroding, line it with a suitable material.
- Repair damaged linings immediately.

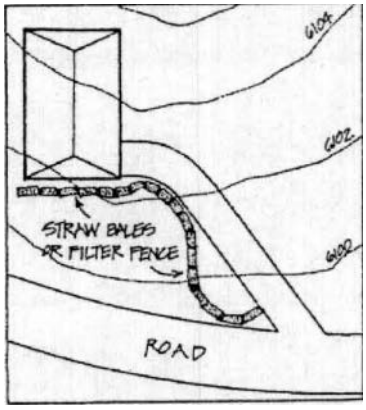
4. TEMPORARY OR PERMANENT USE:

Berms and ditches can be temporary or permanent BMPs.

BMP: SEDIMENT BARRIERS

Sediment barriers are temporary structures that slow runoff and trap small amounts of sediment. Sediment barriers can be built with:

- Straw bales
- Silt fence or filter fabric attached to a wire fence or to straw bales
- Erosion Control Log/wattle
- Native Erosion Control Log, or
- Sandbags



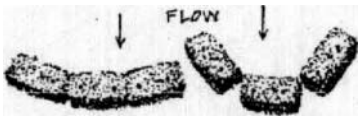
Sediment barriers should be used:

- Below small disturbed areas;
- At the base of exposed slopes;
- Along streets, curbs, and property lines (below disturbed areas).

The following method should be used to install straw bales:

A. Dig a 6-inch deep by 2-foot wide trench. Align trench along contour but curved slightly uphill so runoff cannot escape around the end bales.

B. Place bales in trench with ends tightly abutted.

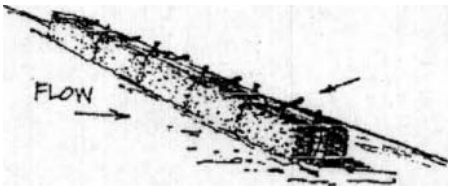


C. Anchor each bale with 2 re-bars or wood stakes hammered 1½ to 2 feet into the ground.

Angle first stake in each bale toward the *IncorrectCorrect* previously laid bale.

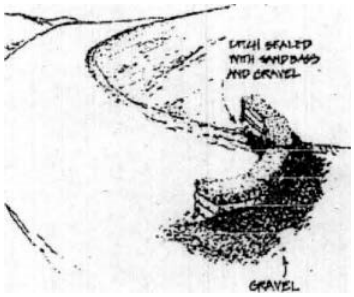
D. Wedge loose straw between bales.

Backfill and compact the excavated soil against the uphill side of the barrier.





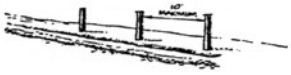
E. When installing bales on pavement, you can pile gravel or rock behind the bales to hold them in place.



SILT FENCE: Silt fence is required when excavation occurs next to any watercourse and must be installed prior to any earthwork.

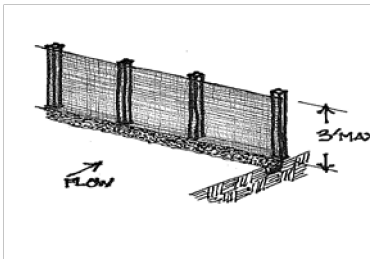
The following method should be used to install silt fence or filter fence:

A. Space posts no more than 10' apart and drive them at least 1' into the ground, align the fence along the slope of the contour, curving it slightly uphill to avoid end runs.

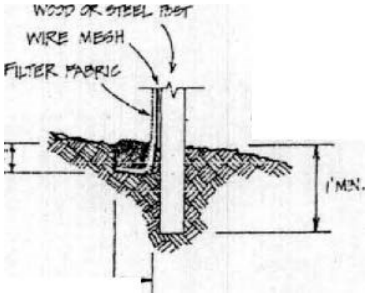


1. METHODS:

B. The fabric should not extend more than 3' above the ground. Cut filter fabric from a continuous roll to avoid having joints. Where joints are necessary, splice the fabric only at a post, with at least a 6" overlap, and fasten both ends securely to the post.



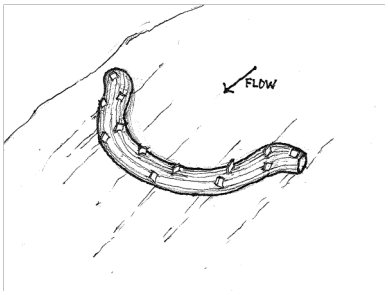
C. Fasten mesh to uphill side of posts with staples or wire, extend mesh to bottom of trench. (Do not attach mesh or fabric to trees.)



D. Dig a 4" x 4" trench on the uphill side of the fence.

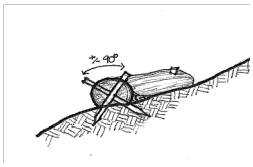
E. Backfill trench and compact the soil.

Note: Silt fences will not withstand high-volume of water, snow loading and high wind environments and often require higher maintenance.



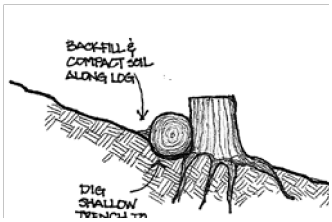
The following method should be used to install an erosion control log:

A. Erosion control logs should conform to the slope and must maintain contact with the ground the entire length of the log. When installed in series as a wattle, ends should be tightly fastened together with plastic ties.

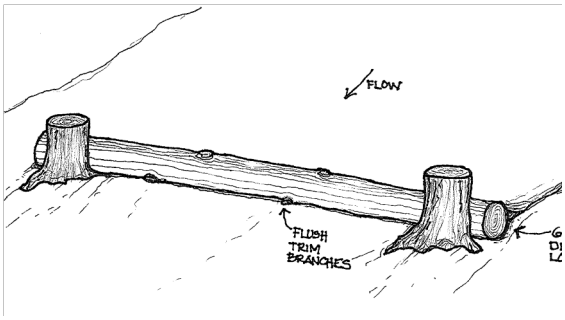


B. Install using 1 ½" x 1 ½" x min. 24" wood stakes. Locate stakes at all ends or joints, otherwise on 24" centers. Alternate orientation throughout the length of the erosion control log. Proper staking is essential for erosion control log function.

The following method should be used to install a native erosion control log:



A. Cut a native log to length, allowing for some overlap past each of the supporting tree stumps. Flush trim the branches.



B. Dig a shallow trench, slightly wider and longer than the log, on the uphill side of the tree stumps. Set the log into trench and against the supporting tree stumps.

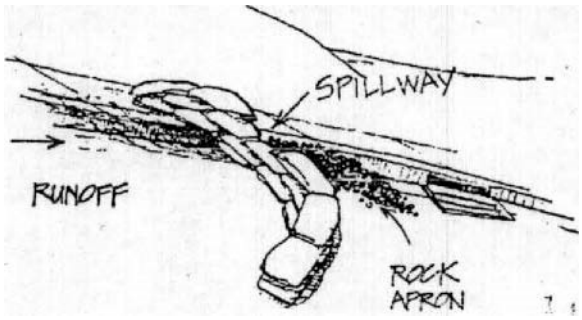
C. Backfill and compact the excavated soil along uphill side of the log barrier.

The following method should be used to install a sandbag sediment barrier:

A. Place a row of sandbags from the top of the curb to at least 3' into the driveway. Curve the barrier so the ends point uphill.

B. Place a second layer of bags overlapping the first. Press the bags tightly together to eliminate any spaces between the bags.

C. Place a third layer of bags on top leaving a 6" wide spill way near the center of the row.



D. If the driveway is unpaved, construct a rock apron below the downhill side of the spillway (see section on outlet protectors).

E. Add 1 or 2 more layers of bags, if necessary, to accommodate higher flow. If using more than 3 layers, place a second row of bags behind the first for reinforcement. Leave a gap in the top layer as a spillway.

2. MATERIALS:

- For a straw bale sediment barrier, use straw bales (bound with wire or twine) and wood or steel stakes, minimum 4foot long (2" X 2" wood, re-bars or steel pickets), 2 stakes per bale.
- For a filter fence, use filter fabric (42 inches wide, tensile strength = 120 lbs., equivalent opening size 70); posts, minimum 5 feet long (4" X 4" wood or 1.3 lbs/ft steel); wire mesh (42 inches wide, 6 inch mesh maximum, 14-guage wire minimum); staples for wood posts (heavy duty, 1 inch long minimum); and wire for steel posts. Note: Some types of filter fence have stakes included and do not require all the above materials.
- For an erosion control log sediment barrier, use 9 to 18 inch diameter tubular mesh encased straw, coir or excelsior erosion logs, and 1 ½" x 1 ½" wood or rebar stakes, minimum 24 inches long, placed every 24 inches along length.
- For a natural erosion control log sediment barrier, use a minimum 6 to 8 inch diameter site harvested log with all branches trimmed flush to trunk.
- For a sandbag barrier, use sandbags and add rocks if needed.

3. MAINTENANCE:

- Inspect periodically and after each storm, and before the winter season.
- Replace damaged bales or logs; re-anchor displaced ones.
- Clean out accumulated sediment before it reaches the top of the bales or logs.
- Deposit the sediment where it will not enter a drainage way.
- To winterize a site adequately, all loose fill material should be protected from erosion. Cover fill material necessary for backfilling during the next grading season with sheeting of straw and install a sediment barrier around it. Remove loose material and rocks from the road and from drainage ditches or gutters. Gravel or pave driveways and access roads before the grading season ends. Where slope stabilization is necessary as a permanent erosion control measure, it should be installed before the winter season to prevent undue erosion.

4. TEMPORARY OR PERMANENT USE: Sediment barriers are temporary BMPs.

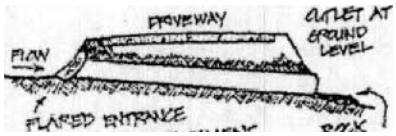
BMP: DRIVEWAY AND PARKING AREA STABILIZATION

1. METHODS: As soon as driveways and parking areas are graded, pave them or cover them with gravel to prevent soil erosion. Spread a 4" layer of ½" to ¾" gravel over these areas. Size culverts to handle the peak flow during a heavy storm. Generally, the Site Development Department, Road and Bridge Department or private engineer will size the

culvert necessary for installation in roadside ditches along public roads. Where sizing requirements are not provided, as a rule-of-thumb, use a culvert with twice the cross-sectional area of the channel draining into it. The extra capacity is needed because of flow efficiency loss at the culvert's inlet.

Erosion frequently occurs at culvert entrances. It is best to install a culvert with its inlet flush to the embankment. The edge of the pipe should be rounded or flared to improve flow into it. Place rocks or sandbags around the inlet to prevent scour. As flow volumes and velocities increase, outlet protection is usually needed. An outlet protector, such as a rock apron, is a device for absorbing the energy of water discharging from a pipe or channel. Outlet protectors should be used:

Good

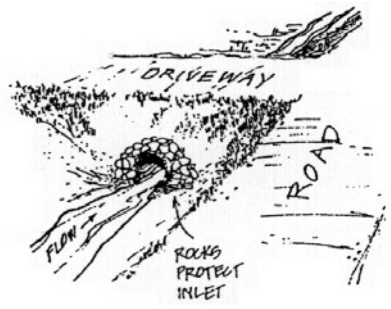


Poor

- Below culverts.
- Below sediment trap outlets.
- Where a steep or paved channel drains into an unlined or natural drainageway.

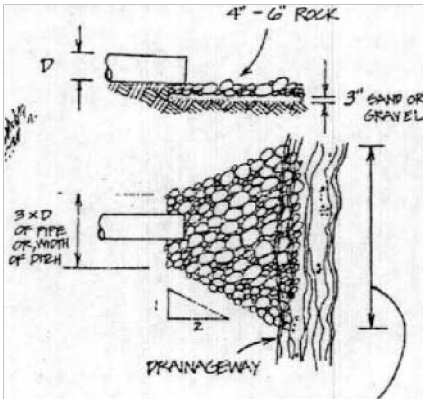
2. MATERIALS: The following method should be used to construct a rock apron outlet protector. (Note: The following description applies to a ditch or culvert discharging at the side of a drainageway.)

The ditch or culvert should end at the top of the bank of this drainageway if you are constructing a driveway and culvert across a natural drainageway.



A. Place a 3" layer of sand or gravel in a trapezoidal-shaped apron from the ditch or culvert to the middle of the drainageway. The apron width at a ditch should be as wide as the ditch. The apron width at a culvert should be 3 times the culvert's diameter. The apron should flare out at a ratio of 1' sideways for each 2' of length until the apron is 5 times the width of the ditch or culvert.

B. Place a layer of 4" to 6" rock on the top of the apron. The top of the finished apron should be at the same level as the inflowing ditch or culvert and should slope at the existing grade.



3. MAINTENANCE:

- Inspect inlets and outlets during and after each storm.
- Replace dislodged stones with larger ones.
- Enlarge the apron if erosion is occurring around its edges.

4. TEMPORARY OR PERMANENT USE: Driveway and parking area stabilization can be temporary or permanent BMPs.

BMP: INFILTRATION SYSTEMS

1. METHODS: An infiltration system is a device used to percolate runoff into the soil. A typical system is a rock-filled trench/basin (called a dry well) or Infiltrator Chambers. Both mechanisms are similar to a septic system's leach field. The rock-filled trench is limited in storage capacity compared to the Infiltrator Chamber. You should infiltrate runoff from all impervious surfaces, including roof tops, driveways, and areas where the soil has been packed down.

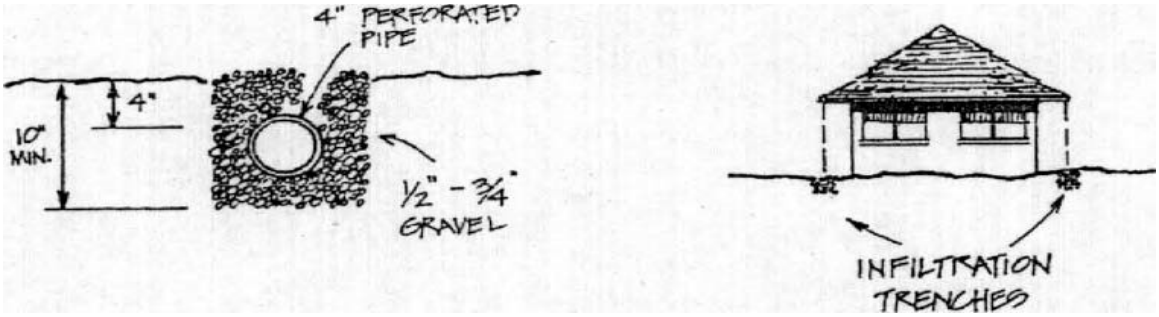
An infiltration system should be used:

- Below roof drip lines;
- In conjunction with downspouts/gutters;
- Along driveways and walkways;
- Along dikes and ditches; ▪ Below sediment trap outlets; and ▪ On flat or gently-sloping ground.

Infiltration systems are required on all BMP Permits and for all development where the roof square footage area is greater than 1,750 square feet.

The capacity of infiltration trenches decreases as the slope of the trench increases. Don't build infiltration trenches with drain slopes steeper than 15%. Where a roof drip line or driveway exceeds 15% slope, install a lined ditch to convey the runoff to a dry well or lateral infiltration trench located along a slope contour.

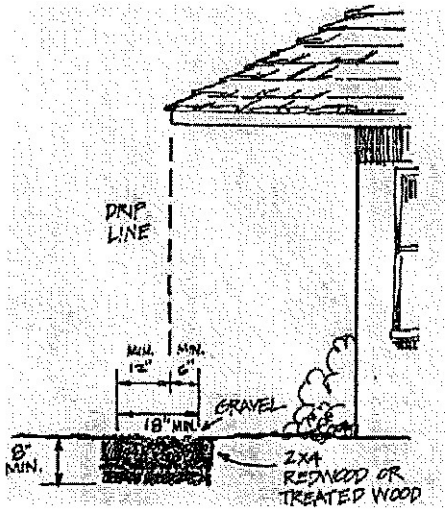
A french drain is a trench containing a perforated pipe surrounded by gravel.



Where water dripping from a roof will fall on a slope above a house's foundation, install a french drain to convey the roof drip to an infiltration system away from the house. The french drain will prevent water from seeping under the foundation and weakening it.

Where an infiltration system is located below a disturbed area, install a sediment barrier to remove the soil before it reaches the system.

Removing sediment from the runoff will increase the efficiency of the infiltration system and reduce maintenance costs.



The size of the infiltration system depends on soil permeability, runoff area and is sized according to storm events. The system must be able to infiltrate at a minimum 0.5" of precipitation per hour, which is 90% of the precipitation from storm events. A more effective system would be designed for 1" of precipitation which is 95% of the annual storm events. If you have hired an architect or engineer to prepare the plans for your house, he or she can calculate the size of the infiltration system needed.

The following method should be used to construct a roof drip line infiltration trench:

A. Dig a trench of the required size along the roof drip line as shown. Allow 3" extra width for the border boards.

B. Add the border boards (which are optional) and gravel to fill the trench to ground level.

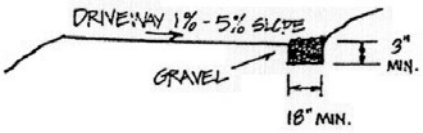
C. Downspout/gutter infiltration devices are designed per project. Either an engineer, contractor or the County's Site Development Department can assist on a design. See diagrams for examples of these devices.

The following method should be used to construct a driveway infiltration trench when the driveway surface is paved or non-erodible:

A. Grade the driveway with a 1%-5% slope towards the trench.

B. If the driveway slope is less than 15%, size and construct a trench along the low side of the driveway as described above.

C. If driveway slope is 15% or more, install a paved ditch or trench drain along the low side of the driveway and route the runoff to lateral infiltration trenches located along slope contours or to dry wells located in more level areas. Install a 2' long water bar between each section of ditch to prevent runoff from



continuing down slope.

D. Do not install lateral infiltration trenches on fill slopes steeper than 4 horizontal to 1

vertical (4:1). Do not locate a driveway on top of an infiltration trench. Avoid placing .

infiltration trenches where their construction will damage tree roots.

The following method should be used to construct a dry well:

A. Determine the required dry well size.

B. Dig a basin of the required size and fill it with gravel. You may want to cover the top

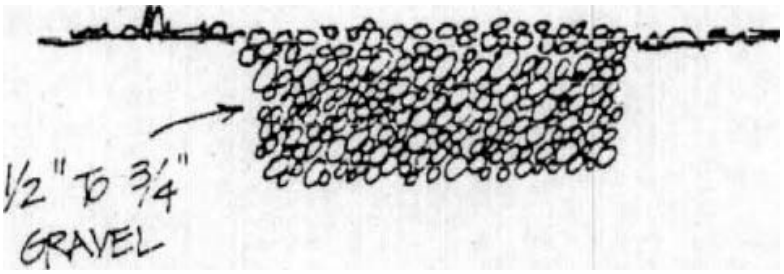
Lateral Infiltration of Trenches

the dry well with a shallow layer of sand or

wood chips to create a more pleasing appearance.

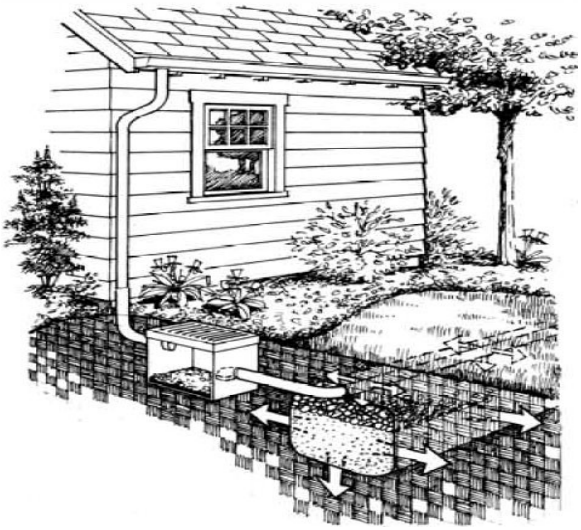
2. MATERIALS:

- Catch basin
- Perforated pipe
- Gravel
- Wood, cinderblock, etc.



3. MAINTENANCE: Clean out accumulated sediment and debris when the dry well fails to infiltrate storm runoff.

4. TEMPORARY OR PERMANENT USE: Infiltration systems are permanent BMP's.



Dry Well (seepage pit)

BMP: SLOPE STABILIZATION

1. METHODS: Rip rapping is the use of cobble-size rock, generally 6"- 10" in size, placed closely together on disturbed soils to prevent erosion. Rock riprap is generally the most effective erosion control device for slopes greater than 30%. It can also be used on less steep slopes and works well with seeding. Concrete can be used to fill in between the rocks to hold the riprap securely in place, a common practice on steep slopes.

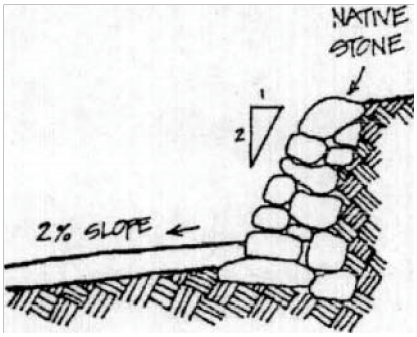
Slopes that are cut for building or driveway construction are sometimes so steep that vegetation or rip rapping alone cannot adequately protect them. Runoff from these over-steepened slopes often erodes the toe of the slope, causing continued slope slippage. Retaining walls prevent toe erosion and slope slippage.

The following method should be used to construct a native rock retaining wall. (Note: Any retaining wall over 4' high shall be designed by a licensed Colorado engineer and require a retaining wall permit.

A. Remove all large rocks from the eroding slope and stockpile on site.

B. Dig a footing trench along the toe of the slope.

C. Place the largest rocks in the trench with their longest axes perpendicular to the slope.



D. The face of the wall may vary from vertical to a 1:2 slope.

E. Fill the space behind the rock wall with leftover soil excavated from the site.

F. Slope the ground at the base of the wall at a 2% grade away from the wall and stabilize it with vegetation or mulch. If a driveway is located at the base of the wall, pave it up to the wall or install a curb.

The following method should be used to construct a wood retaining wall. Note: Any retaining wall over 4' high and shall be designed by a licensed Colorado engineer and require a retaining wall.

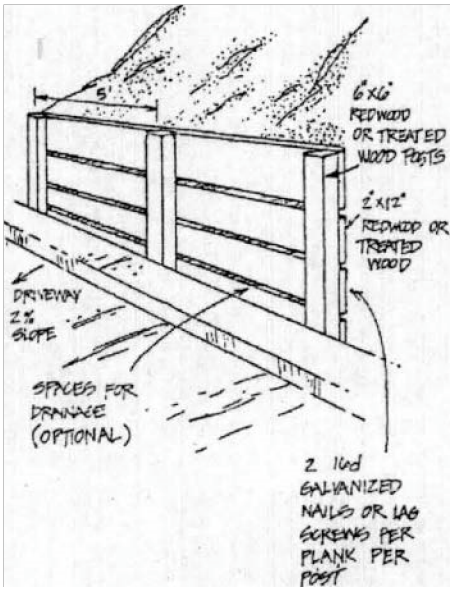
A. Set 6" x 6" wood posts into concrete foundations at least 2' into ground. Space the posts 5' apart.

B. Nail 2" x 12" wood planks to the upslope side of posts. Leave a small vertical space between planks to allow drainage at the base of the wall and between planks. You may want to backfill the space behind the wall with surplus soil from excavations.

C. Slope the ground at base of the wall at a 2% grade away from the wall and stabilize it with vegetation or mulch. If a driveway is located at the base of the wall, pave it up to the wall or install a curb.

2. MATERIALS:

- Rocks
- Redwood, cedar, or treated wood
- Rock-filled baskets (gabions)
- Railroad ties
- Concrete
- Steel



3. MAINTENANCE: Inspect periodically for erosion, slippage, sloughing, or other damage. Repair as needed.

4. TEMPORARY OR PERMANENT USE: Slope stabilization can be a temporary or permanent BMP.

BMP: INLET AND OUTLET PROTECTION

1. METHODS: The primary function of stormwater inlet protection is to decrease sedimentation/siltation impacts to these devices, which increases their functionality and longevity. Outlet protection, such as rip-raping drainage ways, reduces channelization and decreases erosion. Once a stormwater device is installed, protection to both inlets and outlets should then also be installed.

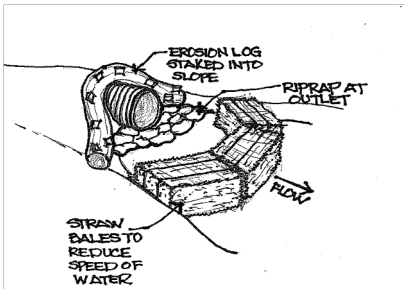
2. MATERIALS:

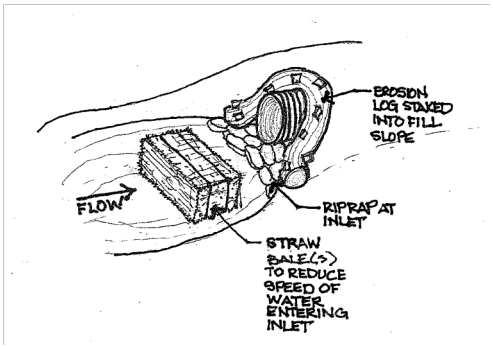
- Straw bales, erosion control logs, silt fence, sand bags and riprap.

3. MAINTENANCE:

- Silt and sediment must be removed on a regular basis.
- Devices installed should be inspected after each storm event.

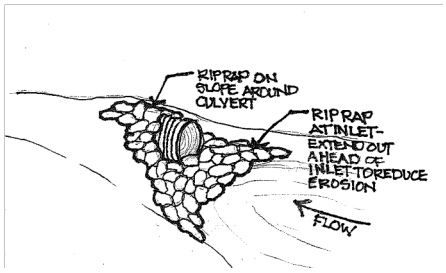
4. TEMPORARY OR PERMANENT USE: Inlet and outlet protection can be a temporary or permanent BMP.

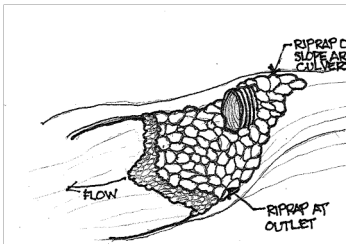




Temporary
Inlet Protection

Temporary
Outlet Protection





Permanent Inlet Protection

Permanent Outlet
Protection

BMP: SNOW REMOVAL

1.

METHODS: Snow removal is essential for the safe and efficient operation of roads, parking areas and driveways. In rural areas and along highways, snow is usually plowed to the sides of roads and allowed to melt there. In more densely developed areas, particularly in commercial areas and parking lots, snow must be removed and transported by truck to separate storage areas. Because of the concentration of petroleum products (from oil and gasoline) and salt in snow on roads and parking areas, the runoff from stockpiled snow can have significant impacts on water quality. Suggested methods for minimizing these impacts are:

- Where conditions permit, plow snow to the center of roadways and parking areas prior to removal by truck. This reduces the clogging of storm drains and reduces damage to curbing and other structures.

- Create a snow storage area that prevents contaminated snowmelt from reaching stream channels and groundwater. The size of the area will be vary with the needs of the municipality, but in general should be of sufficient size to allow evaporation. The area should be lined and bermed to prevent runoff, and incorporate a settling pond if necessary.

- If snow storage area is located near a waterway it should be surrounded by a sand berm for the snowmelt to percolate through.

- Do not dump or plow snow into or adjacent to stream channels, storm drains or other drainage ways.

- Remove plowed snow as soon as possible following storm to minimize on-site runoff.

2. MATERIALS: Silt fence, berms, hay bales, riprap, see other BMP's.

3. MAINTENANCE: Storage area(s) should be checked annually, and any necessary repairs to liners, berms or settling ponds. Sand and other foreign materials should periodically be removed as needed.

4. TEMPORARY OR PERMANENT USE: Permanent installation recommended.

BMP: SANDING PROCEDURES

1. METHODS: Wintertime sanding during storms is a necessity for roads and driveways in the upper Clear Creek watershed.
Since road sand typically contains some percentage of salt (5 to 20%), snow melt can have negative effects on water quality.
Recommended methods include:

- Use the minimum amount of sand needed to accomplish the job.
- Use the lowest feasible content of salt.
- Sweep sand from paved roads as soon as possible following storm.
- Recycle sand if feasible.
- Store sand on lined, curbed or bermed site and under shelter if possible.

2. MATERIALS: Sand with salt. Alternate materials to reduce fugitive dust and reduce the need for salt are being evaluated by various municipalities and the Department of
Transportation. Contact CDOT for more information.

3. MAINTENANCE: Sand should be removed from paved streets as soon as feasible following storm.

4. TEMPORARY OR PERMANENT USE: This is a permanent BMP.

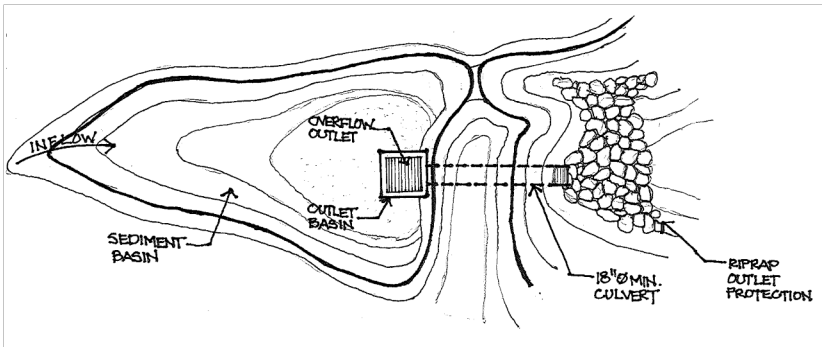
BMP: SEDIMENT BASINS

1. METHODS: Sediment basins are small impoundments that allow sediment to settle out of stormwater runoff. The outlet from the sediment basin should be designed to empty its volume over an extended period of time.

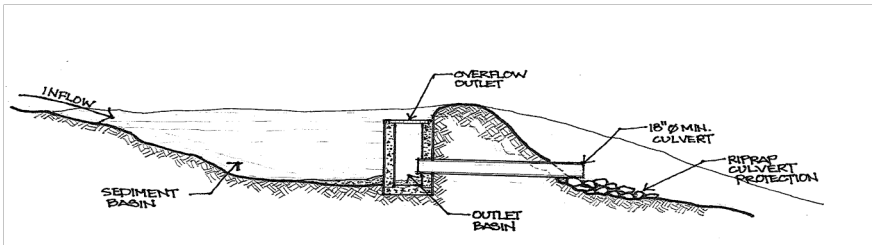
2. MATERIALS: Inlet structure and pipe, riprap and compacted earth.

3. MAINTENANCE: Remove sediment as required.

4. TEMPORARY OR PERMANENT USE: Permanent.



Sediment Basin



Sediment Basin Section

BMP: CONSTRUCTION FENCE

1. METHOD: Construction fence is required on slopes greater than 20° when adjacent to a public/private road, adjacent to any structures or if determined it is needed to provide for the health, safety or welfare of the general public.

There are several types of construction fence that can be used. They vary in strength and integrity. On steeper, rockier slopes, a chain link fence and metal post will be required. Gentler, less rocky slopes can use the welded wire fence and in some cases, the orange plastic construction fence will be required.

Brush barriers are also a mechanism that can be used in place of a construction fence. A brush barrier is the tree material removed from the site and placed on the downside of all excavation, relatively close to the ground. Trees are a great tool for decreasing rock fall from the property and should be used where appropriate.

2. MATERIALS:

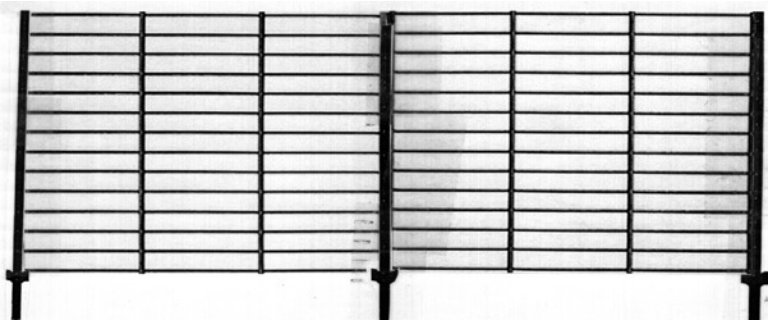
- 4’ - 2”x4” Welded Wire Fence and standard 6’ Fence Posts
- 4’ or 6’ Chain Link Fence with Steel Posts
- Native tree material used from site for a Brush Barrier

The individual permit will specify what type of safety barrier to use. These devices must be installed prior to any excavation.

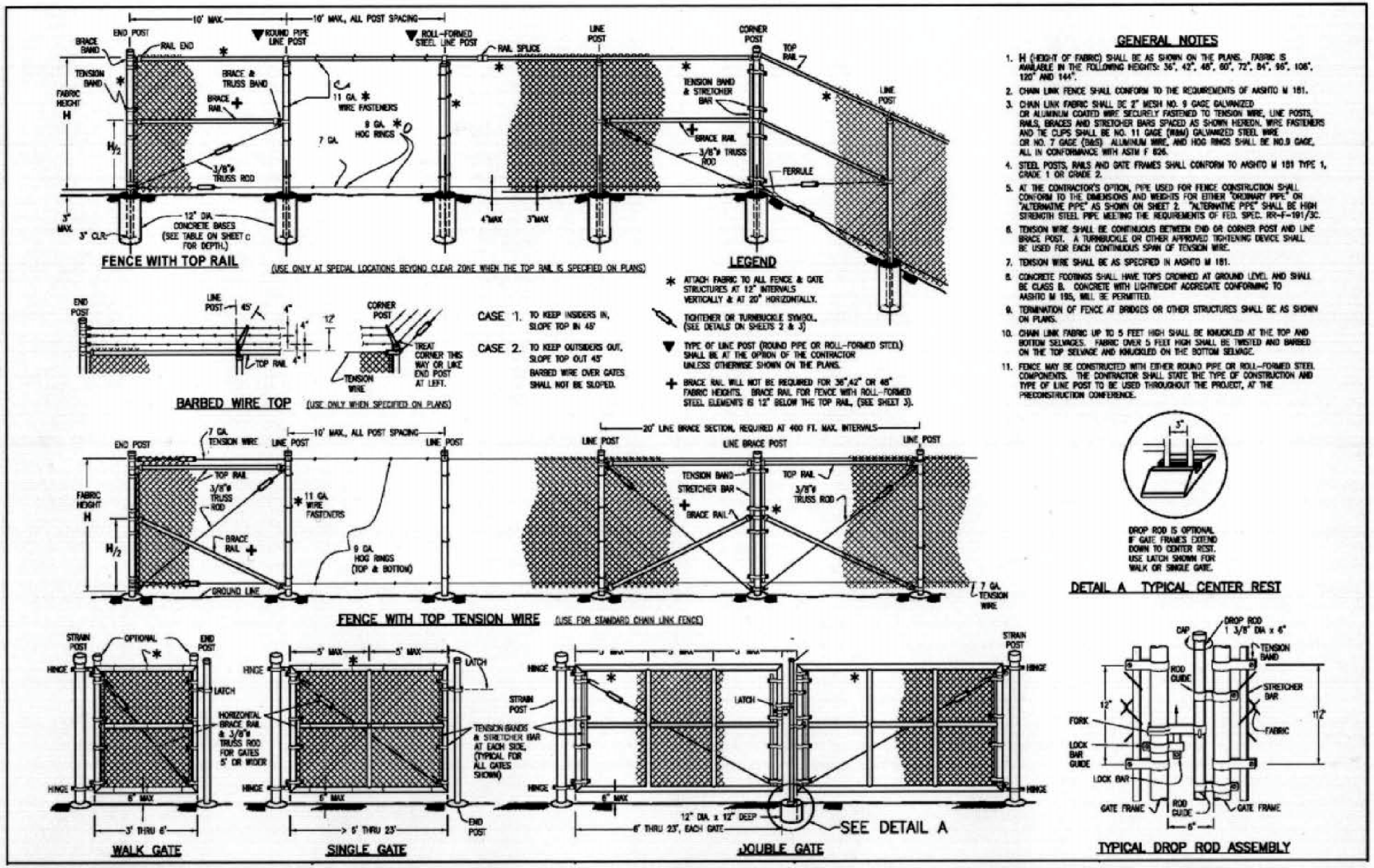
3. MAINTENANCE TIPS:

- Repair or replace fence as needed
- Repair or replace any fence posts
- Inspect daily after excavation
- Add additional tree material when needed

4. TEMPORARY OF PERMANENT USE: The fence or brush barrier is a temporary BMP. The fence or brush barrier can be removed after excavation is completed and the slope has been stabilize.



2” X 4” Welded Wire Fence with 6’ High Poles



Clear Creek County Chain Link Fence Detail

BMP: PAVING

1. METHODS: Paving is required on private roads, driveways and parking areas when they are accessed by a paved road. Parking areas and drives must be paved with a minimum of 6 inches of road base compacted to 95% modified Proctor and 3 inches of asphalt, see figure. Paved parking areas for all other development shall be designed in accordance with Section 2.43. C, with TI equaling 6.0, as per Clear Creek County's Roadway Design and Construction Manual.

The County may also require pavement that drinks, or porous pavement. This requirement will be contingent upon any land use case stipulation/condition and will be designed by a Colorado licensed engineer.

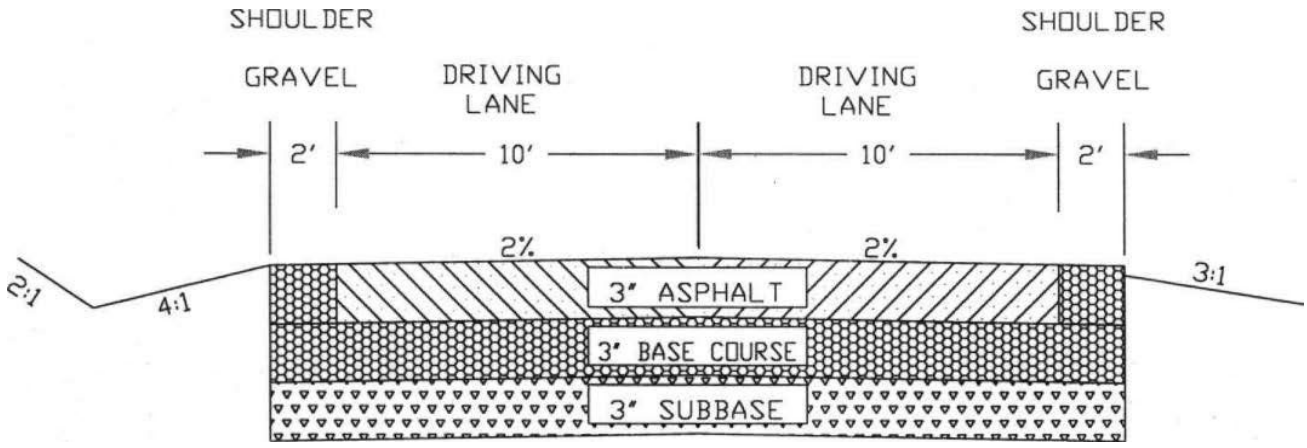
2. MATERIALS:

- 3" asphalt, 3"base course, 3" subbase, as per figure 6, Clear Creek County's Roadway Design and Construction Manual.

3. MAINTENANCE TIPS:

- Replace/repair as required.

4. TEMPORARY OR PERMANENT USE: Paving is a temporary and Permanent BMP.



Typical Cross Section for a Primitive Status Road

- The Primitive Road Standard can be either one (1) or two (2) lanes as per Clear Creek County Roadway Design and Construction Manual .
- Parking areas are required to meet the same criteria as above (3”Asphalt, 3” Base Course and 3” Sub Base) with a maximum of 4% grade.

CLEAR CREEK BOARD OF COUNTY COMMISSIONERS
RESOLUTION

RESOLUTION FOR ADOPTION OF THE ~~2021~~2024 INTERNATIONAL CODE SERIES TO INCLUDE THE BUILDING, RESIDENTIAL, PLUMBING, MECHANICAL, ENERGY CONSERVATION, FUEL GAS, EXISTING BUILDING, FIRE~~, WILDLAND-URBAN INTERFACE~~, AND SWIMMING POOL AND SPA CODES, AND FOR THE ADOPTION OF THE 2025 COLORADO WILDFIRE RESILIENCY CODE~~S~~ EFFECTIVE IN~~FOR~~ THE UNINCORPORATED AREA OF CLEAR CREEK COUNTY

~~2021~~2024- CLEAR CREEK COUNTY INTERNATIONAL CODE SERIES AND 2025 OLORADO WILDFIRE RESILIENCY CODE AMENDMENTS

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EXHIBITS

Exhibit 1 – Special Wind Region Map for Clear Creek County (See page ~~50~~51)

Exhibit 2 –Clear Creek County Roadway Design and Construction Manual Chapter 4 (attached)

Exhibit 3 – Clear Creek County Best Management Practices Manual (attached)

~~2021~~2024~~-~~ INTERNATIONAL RESIDENTIAL CODE

CHAPTER 1 ADMINISTRATION

SECTION R101 – TITLE, SCOPE AND PURPOSE

Delete section 101.1 Title and replace with the following:

R101.1 Title. These provisions shall be known as the Residential Code for One- and Two-Family Dwellings of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION R102 – APPLICABILITY

Add the following section:

~~**R102.4.3 Referenced Codes and Standards.** All references to the ICC Electrical Code shall be deleted in this code except sections E3405 and E3609, the subject matter of which shall be permitted and regulated by the State Electrical Department.~~

R102.4.~~4~~ 3 All references to the International Property Maintenance Code in this code shall be deleted.

SECTION R103 – DEPARTMENT OF BUILDING SAFETY

Delete R103.1 in its entirety and replace with the following:

Commented [DD1]: Deleting the removal of the electrical code. The state only performs electrical inspections and does not perform a plan review. There may be a case where the County would desire electrical details and the code would be enforceable.

Commented [KP2R1]: I agree whole-heartedly.

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R103.1 Creation of Enforcement Agency. The Building Department is hereby created and the official in charge thereof shall be known as the building official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION R105 – PERMITS

Add section R105.1.2 License Required:

105.1.~~3~~ 2 License Required. All persons undertaking work which requires a permit as provided in Section 105, or seeking to obtain that permit from the County, are required to have a currently valid contractor's license issued from Clear Creek County Planning and Building Services Department. That license shall have been issued by the County in accordance with the provisions of the Clear Creek County Contractors Licensing Requirements and the Contractor Licensing Regulations adopted by the Board of County Commissioners, and any regulations subsequently adopted by the Board of County Commissioners, as said resolution and regulations may be amended from time to time by said Board.

Exceptions:

1. The owner of a single-family dwelling shall be allowed to secure a permit to construct, alter, or repair said home provided the following conditions are met:

   A. The homeowner currently occupies the dwelling or will occupy the residence once the construction has been completed.

   B. The homeowner undertakes the work themselves.

2. The Building Official may waive the provisions of this section where it can be established that no license exists for the installation, alteration, or repair of a certain type of work requiring a permit, or due to other unique circumstances.

Delete Number 1 under "Building" and replace with the following:

R105.2 Work Exempt from Permit

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15m^2) and the structure is located more than 50 feet (15240 mm) from the nearest adjacent structure.

Add new Numbers 11 & 12 under "Building" as follows:

11. Non-permanent coverings consisting of pole and fabric.

Commented [KP3]: What is the purpose of (1)(A) (just out of curiosity)?

Commented [DD4R3]: A couple of reasons: prevents owners from working on their rentals without licensure and prevents flippers from operating commercially without licensure. The exemption is targeted for owner-occupants.

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12. All pre-manufactured single unit detached shipping containers used for storage only which have not been modified.

Add the following as end of **R105.3.1**:
The building official is authorized to deny a permit to an applicant or property not meeting the provisions of this code, to any person who has an outstanding failure to appear in court pertaining to a county related violation, a person or property with associated outstanding permit(s) or fees related to any county application or permit, or to any person or property not in compliance with any other county regulations. Permits may be issued once conditions set by the building official are satisfied.

Commented [KP5]: We also should add this to the ZR!

Commented [DD6R5]: Agreed.

Delete Section R105.5 in its entirety and replace with following:
R105.5 Expiration. Every permit issued by the building official under the provisions of this code shall expire by limitation and become null and void if more than 180 days pass before an initial inspection or 180 days pass between inspections after the issuance of such permit. Work must be pursued and completed in good faith to complete construction in a timely manner as determined by the building official.

R105.5.1 Renewal Permit. A renewal for a permit may be applied for when a permit has expired and a full fee will be assessed unless the permit has received approvals from the building official through all of the rough inspections and provided no changes have been made to the original plans and specification, then a 50% fee will be charged. The rough inspections include all framing, mechanical and plumbing. The renewal will be subject to the provisions of the currently adopted code unless technically infeasible. Permits may only be renewed if not more than 1 year has elapsed since permit expiration.

R105.5.2 Permit Extension. Any permittee holding an unexpired permit may apply for an extension of the time to complete the work and inspections under that permit when the permittee is unable to complete the work within the time required by Section R.105.5 due to circumstances beyond the control of the permittee. The extension shall be requested in writing prior to the expiration of the permit and justifiable cause for the extension shall be demonstrated. The building official is authorized to grant an extension of time for a period of 180 days.

Add the following Sections;
R105.10 Transfer of Permits. An unexpired permit may be transferred from one party to another upon written application to the building official by the new owner of the property or his/her authorized agent, provided there is no change in the plans and specifications. Documentation of the change in ownership must be provided by the new owner. No change shall be made in the

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expiration date of the original permit. A fee is required to transfer the permit, please refer to the building permit fee schedule.

R105.10.1 Owner assuming Role as Contractor. The building official may allow the property owner to assume the role of contractor at any time on an active permit by providing the building official with a letter listing the permit number, the address of the project and stating that the original contractor is no longer in the employment of the owner, provided that no change of ownership has occurred since the permit was issued. This change may be done at no charge. No change shall be made in the expiration date of the original permit.

SECTION R106 – CONSTRUCTION DOCUMENTS

Delete R106.1 and replace with the following:

R106.1 Submittal documents.
Submittal documents consisting of *construction documents*, and other data shall be submitted in two or more sets, or in a digital format where allowed by the *building official*, with each application for a *permit.* The *construction documents* shall be prepared by a *registered design professional*. Where special conditions exist, the *building official* is authorized to require additional *construction documents* to be prepared by a *registered design professional*.

Exceptions:

1. The *building official* is authorized to waive the submission of *construction documents* and other data not required to be prepared by a *registered design professional* if it is found that the nature of the work applied for is such that reviewing of *construction documents* is not necessary to obtain compliance with this code.
2. Construction documents are not required to be prepared by a *registered design professional* where the *building official* has determined that the scope and nature of the proposed work does not warrant such preparation.

SECTION R108 – FEES

~~**R108.1.1 Payment of Fees.**~~ Add the following sentence to **R108.1 Payment of Fees**:
Any reduction or waiver of a building permit fee must be approved by the Board of County Commissioners.

Add the following at the end of **R108.2 Schedule of Permit Fees**~~sections~~:
~~**R108.2.1 Schedule of Permit Fees.**~~ The~~A~~ fee for each permit shall be paid to the Building Department as set forth in the building permit fee schedule. ~~The determination of valuation under any of the provisions of this code shall be made by the building official.~~

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Add the following at the end of **R108.3 Building permit valuations**:
The determination of valuation under any of the provisions of this code shall be made by the building official.

Add the following sections:

R108.3.1 Building Permit Valuations.

Valuation may be based on the annual average cost of construction as published in the Building Safety Journal or the cost of construction provided, whichever is higher. No adjustment will be made by the regional modifier.

~~Add the following sections:~~

~~**R108.4.1 Investigation Fee.** In addition to the required permit fee, any person who commences work on a building, structure, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an Investigation Fee in an amount equal to the permit fee~~.

R108.4.~~2~~ 1 Temporary Certificate of Occupancy. There shall be a fee for a Temporary Certificate of Occupancy as set forth in the building permit fee schedule.

R108.4.~~3~~ 2 Reinspection. A Reinspection Fee may be assessed for each inspection or reinspection when the portion of work for which inspection is called for is not complete or when corrections called for are not made. Reinspection Fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from the plans requiring the approval of the building official. A reinspection fee may be assessed for failure to post a readily visible address. To obtain a reinspection, the applicant shall pay the reinspection fee in accordance with the building permit fee schedule. In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until the required fees have been paid.

Add the following sentence:

R108.5 Refunds.

The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected. The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code. The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment.

Delete 108.6 and replace with:

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Commented [KP7]: Is this numbering now incorrect (if we are deleting our R108.4.1, as above)?

Commented [DD8R7]: Good catch

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R108.6 Work commencing before permit issuance: In addition to the required permit fee, any person who commences work on a building, structure, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an Investigation Fee in an amount equal to the permit fee.

SECTION 109 – INSPECTIONS

Add the following to R109.1.2:

The following tests are required.

-Gas line, hydronic piping, and fire-sprinkler test shall be observed by the building official to ensure compliance with this code.

-Backflow prevention devices where required shall be tested by a qualified individual who shall submit a test report to the building official.

-Building sewer, drain waste vent, ducts, shower pan, and water distribution lines shall be tested in accordance with this code by the installer, observation by the building official nor a test report shall be required.

SECTION R110 – CERTIFICATE OF OCCUPANCY

~~Delete section R110.1 and replace with:~~

~~**R110.4 Temporary Occupancy.** The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely.~~

Add sections:

R110.43.1 Conditions.

A Temporary Certificate of Occupancy may be issued when, but not limited to, the following components of a project are complete and approved by the building official:

1. Kitchen operative;
2. One full bathroom with toilet, sink and tub or shower is operative as per the approved plans;
3. All smoke alarms and carbon monoxide detectors installed per code and passed final inspection;
4. The following items are complete:
    a) Address number(s) posted;
    b) Handrails at stairways;
    c) Guards (guardrails);
    d) Decks/landings where required for compliant exit;

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Commented [DD9]: Modified inspection requirements for required tests

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e) Separations between the garage and house complete, with an approved door per IRC;

5. Heat source for dwelling is operable;
6. Final electrical approval;
7. Final OWTS or confirmation of connection to public sanitation system;
8. Final on all Site Development permits or approval by the Site Development Inspector.
9. All construction or other measures required for Wildfire Hazard Mitigation. See the building permit fee schedule for Temporary Certificate of Occupancy fee.

R110.4.2 Validity. Temporary certificate of occupancy shall be valid for 30 days. Extensions may be granted as allowed by the building official. Fees shall apply as set forth building permit fee schedule. If the TCO expires prior to certificate of occupancy being issued, temporary certificate of occupancy fees will be due for the period of time up to the certificate of occupancy issue date.

~~Delete Section R112.3 Qualifications.~~

CHAPTER 2 DEFINITIONS

SECTION R202 - DEFINITIONS

~~Add the following sentence:~~

~~**HABITABLE SPACE.** All areas with minimum ceiling height are considered to be habitable space.~~

Add the following definition:

SLEEPING ROOM. "Sleeping Room" (Bedroom) Any enclosed habitable space within a dwelling unit, which complies with the minimum room dimension requirements of IRC Sections ~~R304~~ R312 and ~~R305~~ R313 and contains a closet, an area that is useable as a closet, or an area that is readily convertible for use as a closet, and meeting other code requirements for a sleeping room. Living rooms, family rooms and other similar habitable areas that are so situated and designed ~~so as~~ to clearly indicate these intended uses, shall not be interpreted as sleeping rooms.

CHAPTER 3 BUILDING PLANNING

Commented [DD10]: Altered to provide clarity, when a TCO is issued it will be valid for 30 days and fees are due until certificate of occupancy is issued.

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Commented [DD11]: Areas defined as habitable space will require a minimum ceiling height as required by R313. The definition specifies areas to not be considered habitable space which were not deleted. This sentence appears to provide no additional value.

Commented [DD12]: Added definition for sleeping room to support zoning regulation 206.2.1 item 3. This is specific to CCC

Commented [DD13R12]: Modified to reflect the change in location in the code.

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SECTION R301 – DESIGN CRITERIA

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Amend the Table R301.2(1) as follows:

Table R301.2(1) – Climatic and Geographic Design Criteria

GROUND SNOW LOAD^	WIND DESIGN				SEISMIC DESIGN CATEGORY[f]	SUBJECT TO DAMAGE FROM			ICE BARRIER UNDERLAYMENT REQUIRED[h]	FLOOD HAZARDS[g]	AIR FREEZINGINDEX[i]	MEAN ANNUAL TEMP[j]
	Speed[d] (mph)	Topographic effects[k]	Special wind region[l]	Windborne debris zone[m]		Weathering[a]	Frost line depth[b]	Termite[c]				
Varies-See Table	Varies-See Section R301.1(4).1	Yes	Yes	No	B	Severe	42"	None to slight	Yes	2012 (FEMA)Map	2500	40°F
MANUAL J DESIGN CRITERIA[n]												
Elevation			Altitude correction factor[e]	Coincident wet bulb	Indoor winter design relative humidity	Indoor winter design dry-bulb temperature			Outdoor winter design dry-bulb temperature		Heating temperature difference	
Varies			Varies	60°F	20%	68°F			(-10°F)		78°F	
Latitude			Daily range	Summer design gains	Indoor summer design relative humidity	Indoor summer design dry-bulb temperature			Outdoor summer design dry-bulb temperature		Cooling temperature difference	
40°N			High	Varies	50%	75°F			90°F		15°F	

~~(a) Wind exposure category may be determined on a site-specific basis in accordance with Figure R301.2.1.1~~

~~(b) In accordance with R905.1.~~

~~(c)From the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index – USA Method (Base 32°F)"~~

Add the following:

R301.2.3 Snow Loads. The roof structure shall be designed for snow loads as determined by the Snow Load Design in Table R301.2.3. No snow load reductions shall be allowed.

Basic Snow Load Design Table R301.2.3 Roof Snow Loads Required in Pounds per Square Foot (PSF)

Elevation (feet above sea level)	Basic Snow Load (PSF)	Elevation (feet above sea level)	Basic Snow Load (PSF)
6,500 to 6,750	35	9,001 to 9,250	85
6,751 to 7,000	40	9,251 to 9,500	90
7,001 to 7,250	45	9,501 to 9,750	95

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7,251 to 7,500	50	9,751 to 10,000	100
7,501 to 7,750	55	10,001 to 10,250	110
7,751 to 8,000	60	10,251 to 10,500	120
8,001 to 8,250	65	10,501 to 10,750	128
8,251 to 8,500	70	10,751 to 11,000	135
8,501 to 8,750	75	11,001 to 11,500	150
8,751 to 9,000	80		

Add the following:

Figure R301.2(2) Determination of Wind Loads: Figure R301.2(2) identifies parts of Clear Creek County to be in a Special Wind Region. The basic wind speed is 105 MPH Exposure C excepting the areas identified as Special Wind Region, which are determined to be 110 MPH Exposure C. See Exhibit 1 on page ~~45~~ 51 containing the Special Wind Region Map attached hereto and incorporated herein.

Table R301.5 Minimum Uniformly Distributed Live Loads

Add footnote (j) to live load requirement for Balconies(exterior) and decks as follows:

j. Total load design shall include Basic Snow Load per Table R301.2.3 and the dead load.

Delete Section R301.6 Roof Load in its entirety and replace with the following:

R301.6 Roofs. Roofs shall be designed to the snow load indicated in Table R301.2.3, plus the dead load.

SECTION R302 – FIRE-RESISTANT CONSTRUCTION

Delete Section R302.6 in its entirety and replace with the following:

R302.6 Dwelling/garage fire separation. The garage shall be separated from the residence and its attic area by not less than 5/8" Type X Gypsum wallboard or its equivalent applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the assembly shall also be protected by not less than 5/8" Type X Gypsum wallboard or its equivalent. Openings in garage walls shall comply with section R302.5.

Delete Table R302.6 and replace with the following:

Table R302.6 Dwelling/Garage Separation

Separation	Material
From the residence and attics	Not less than 5/8" Type X Gypsum wallboard or its equivalent applied to the garage side

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From all habitable rooms above the garage	Not less than 5/8" Type X Gypsum wallboard or its equivalent applied to the garage side
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 5/8" Type X Gypsum wallboard or its equivalent
Garages located less than 3 feet from a dwelling unit on the same property	Not less than 5/8" Type X Gypsum wallboard or its equivalent applied to the interior side of exterior walls that are within this area

Delete Section R302.7 and replace with the following:

R302.7 Under-stair protection. Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with not less than 5/8" Type X Gypsum wallboard or its equivalent.

SECTION ~~R313~~ R309 – AUTOMATIC FIRE SPRINKLER SYSTEMS

~~Delete R313.2 One and two-family dwellings automatic fire systems and replace with the following:~~

~~**R313.2 Two-Family Dwellings Automatic Fire Systems.** An automatic residential fire sprinkler system shall be installed in two-family dwellings. Fire Systems shall be designed in accordance with Section P2904 or NFPA 13 D.~~

Delete ~~exceptions to R309.2 One- and two-family dwellings automatic sprinkler systems and replace with the following:~~

~~**Exceptions:**~~

~~1. An automatic fire sprinkler shall not be required where two-family dwellings are separated by 2 hour wall and floor assemblies. These assemblies shall extend to and be tight to exterior wall, and extend from the foundation to the underside of the roof sheathing.~~

~~An automatic sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with a sprinkler system.~~

~~An automatic sprinkler system shall be not required where single-family dwellings driveways are compliant with County standards, are located on primary or secondary County maintained roads, and are less than 4400 square feet in area~~

~~2. An automatic sprinkler system shall not be required where two-family dwellings are separated by a 2-hour fire-resistive-rated wall or floor assembly, driveways are compliant with County standards, are located on primary or secondary County maintained roads, and the structure is less than 4400 square feet in area.~~

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Commented [DD14]: This section has been modified in the past to alleviate the requirements of automatic fire sprinkler systems for single-family homes and duplex's. The estimated cost per SQFT for the installation of a system is three (3) dollars per SQFT of home area. Staff recommends requiring new construction to be provided with automatic fire sprinklers, considering the moderate and high wild fire intensity designation of the County by the State. Staff understand there is a cost associate with these systems.

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SECTION ~~R315~~ R311 CARBON MONOXIDE ALARMS

~~R315~~R311.2.2 Alterations, repairs and additions. Delete all exceptions.

CHAPTER 4 FOUNDATIONS

Delete the following entirely:
Sections R403.2 Footings for wood foundations.

SECTION R405.2 – Wood Foundations

Delete the following entirely:
Section R405.2 Wood foundations.

Add the following section:
R405.2 Wood foundations shall not be allowed.

CHAPTER 9 ROOF ASSEMBLIES

SECTION R902 – ROOF CLASSIFICATION

Delete Section R902.1 (do not delete exceptions) and replace with the following:
R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. All roofing material shall be Class A or Class B roofing materials may be used only if the material has been tested with a fire-resistive assembly and the assembly has received a Class A rating and the material is installed exactly as specified in the Class A rated assembly.

Delete the following section:
R902.2 Fire-retardant-treated shingles and shakes.

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Add the following section:
R902.2 Wood shingles and shakes shall not be permitted regardless if they are fire-retardant-treated.

CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS

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SECTION M1307 – APPLIANCE ~~LOCATION~~ INSTALLATION

Add the following:

M1307.1.1 Liquid Propane Gas (LPG) Appliance. LPG appliances shall not be installed in a pit, basement, or crawl space where unburned fuel may accumulate unless an approved sensing device, with a solenoid shut off on the gas line is installed and a daylighted drain is installed. If the appliance is installed in a crawl space it must have a pad poured for the daylighted drain in addition to the above mitigation. The pad shall be a minimum of 8'x 8'.

CHAPTER 14
HEATING AND COOLING EQUIPMENT AND APPLIANCES

SECTION M1401 – GENERAL

Add the following:

M1401.1.1 Unvented Room Heaters. Unvented room heaters are prohibited in one- and two-family dwellings and in townhouses. All references to unvented room heaters in the ~~2021~~2024 2024 IRC are hereby deleted.

CHAPTER 24 FUEL GAS

~~Add the following:~~

~~**G2415.2 (404.2) CSST.** All CSST must be continuously bonded to the electrical grounding system.~~

SECTION G2415 – PIPING SYSTEM INSTALLATION

Delete G2415.12 and 2415.12.1 and replace with following:

G2415.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches below grade.

~~**SECTION G2417 – INSPECTION, TESTING AND PURGING**~~

~~Delete Section G2417.4.1 in its entirety and replace with the following:~~

~~**G2417.4.1 (406.4.1) Test Pressure.** This inspection shall include an air test, at which time the gas piping shall withstand a pressure of not less than 15 PSI for threaded pipe. For a duration of not~~

Commented [DD15]: Not needed covered in G2411.1 and the electrical portions of the code 3609.7

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Commented [DD16]: Restore to code text.

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~~less than 15 minutes. See manufacturer specifications for other types of gas piping; i.e. flexible gas piping.~~

SECTION G2420 – SHUTOFF VALVES

Add the following:

G2420.1.4 (409.1.4) Auxiliary Emergency Shutoff Valve. An auxiliary emergency shutoff valve (brass-key operated type) is required for gas fireplace appliances and located adjacent to appliance, not less than 12" from appliance, for emergency isolation purposes, regardless of if the appliance provides a similar isolation valve.

SECTION G2445 (641) – UNVENTED ROOM HEATERS

Delete Section G2445 (621) Unvented Room Heaters in its entirety and replace with the following:

G2445.1 Unvented Room Heaters. Unvented room heaters are prohibited and all references to unvented room heater in the 2024~~1~~ IRC and Code Series are deleted.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS

SECTION P2603 – STRUCTURAL AND PIPING PROTECTION

Delete 2603.5.1 Sewer depth in its entirety and replace with the following:

P2603.5.1. Sewer Depth. Building sewers that ~~are~~ connect~~ed~~ ~~to a~~ private sewage disposal system~~s are regulated by the~~shall be in alignment with the Environmental Health Department OWTS Regulation.

~~Delete Chapters 34 through 40 in their entirety (Electrical Sections) Except sections E3405 and E3609~~

The following Appendix Chapters to the ~~2021~~2024 International Residential Code are hereby adopted and enforced by Clear Creek County, Colorado.

Delete APPENDIX CHAPTER E and replace and adopt Appendix E as follows:

APPENDIX CHAPTER E UNSAFE BUILDINGS

SECTION E101 – UNSAFE BUILDING OR STRUCTURES

E101 Unsafe Building or Structures. All buildings or structures regulated by this code, which are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human life are, for the purpose of this section, unsafe. Any use of

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Commented [DD17]: Recommend keeping all electrical provisions of the IRC. The state does not perform electrical plan review nor does it regulate who may perform electrical plan review. Therefor in certain cases the electrical portion of the code should remain, this section also supports some areas of energy efficiency which the state electrical department may not enforce.

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buildings or structures constituting a hazard to safety, health or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is, for the purpose of this section, an unsafe use. Parapet wall, cornices, spires, towers, tanks, statuary and other appendages or structural members which are supported by, attached by, attached to, or a part of a building and which are in deteriorated condition or otherwise unable to sustain the design loads which are specified in this Code are hereby designated as unsafe building appendages.

E102 Public Nuisances. All such unsafe buildings are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures specified in this chapter. As an alternative, the building official may institute any other appropriate action to prevent, restrain, correct or abate the violation, at the expense of the owner.

E102.2.1 Notice to Owner. The building official shall examine or cause to be examined every building or structure or portion thereof reported as dangerous or damaged and, if such is found to be an unsafe building as defined in this section, the building official shall give to the owner of such building or structure written notice stating the defects thereof. This notice may require the owner or person in charge of the building premises, within 48 hours, to commence either the required repairs or improvements or demolition and removal of the building or structure or portion thereof, and all such work shall be completed within 90 days from the date of notice unless otherwise stipulated by the building official. If necessary, such notice shall also require the building, structure or portion thereof to be vacated forthwith and not re-occupied until the required repairs and improvements are completed, inspected, and approved by the Building Official.

Proper service of such notice shall be by personal service upon the owner of record, or such service may be made upon said owner by certified mail; provided that, if such notice is by certified mail, the designated period within which said owner or persons in charge is required to comply with the order of the building official shall begin as of the date delivery is attempted by the Postal Service. If no address can be found for the owner of said property, the notice may be served by publishing a copy of the notice once in a newspaper of general circulation within Clear Creek County, setting forth the address of the premises involved, if any, and the legal description of said premises and stating defects complained of and the time in which said defects shall be corrected. Said notice shall be considered served three (3) days after the publication of said newspaper.

E102.2.2 Posting of Signs. The building official shall cause to be posted at each entrance of such building a notice to read: "DANGER, KEEP OUT. THIS STRUCTURE IS UNSAFE FOR OCCUPANCY." Such notice shall remain posted until the required repairs, demolition or removals are completed.

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Such notice shall not be removed without permission of the building official, and no person shall enter the building except for the purpose of making the required repairs or demolishing the building.

E102.2.3 Right to Demolish. In case the owner shall fail, neglect, or refuse to comply with the notice to repair, rehabilitate, or to demolish and remove said building or structure or portion thereof, the Board of County Commissioners may order the owner of the building prosecuted as a violator of the provisions of the code and may order the building official to proceed with the work specified in such notice. A statement of the cost of such work will be transmitted to the County Commissioners who shall cause the same to be paid and levied against the property.

Adopt APPENDIX CHAPTER ~~AF~~BE as written ~~PASSIVE RADON GAS CONTROLS~~Radon Control Methods

Appendix Chapter ~~AF~~BE

Adopt APPENDIX CHAPTER ~~AT~~NB
as written SOLAR-READY PROVISIONS-DETACHED ONE-AND TWO-FAMILYL DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES)

Appendix Chapter ~~AT~~NB

~~Add and adopt new **APPENDIX CHAPTER W** as follows:~~

~~**APPENDIX W WILDFIRE HAZARD MITIGATION**~~

~~**SECTION W101 – GENERAL**~~

~~**W101.1 Purpose.** The purpose of this chapter is to establish minimum standards for design and construction of buildings or portions thereof for the protection of life and property from fire.~~

~~**W101.2 Scope.** The provisions of this chapter shall apply to all new building construction, to all additions greater than 400 square feet and to all existing driveways and proposed driveway construction. If a second or more additions are constructed within three years of the permit issuance date, the total square footage of the additions will be added together for the purposes of this chapter.~~

~~Building construction shall include manufactured homes, modular homes, factory-built homes and factory-built nonresidential structures.~~

~~EXCEPTIONS: Mobile Homes and manufactured homes, as defined in Clear Creek County Zoning Regulations, to be located in the Mobile Home (MH)~~

Commented [DD18]: Appendices are not enforceable unless specifically adopted. Some of these Appendices are specific to CCC, we can work together on what makes sense for IS. This will generally just list the specific appendix adopted, two appendices were completely drafted by the county and not part of the building code.

Commented [DD19]: Remove sue to adoption of the 2024 CWRC

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~~Zoning District.~~

~~Where requirements are more restrictive in other sections of this code, they will take precedence over Appendix W.~~

~~**W101.3 Alternate Approval.** The provisions of this code are not intended to prevent the use of any material or method of compliance not specifically prescribed by this code, provided any alternate has been approved and its use authorized by the building official. The building official shall require sufficient evidence or proof be submitted to substantiate that the material or method is, for the purpose intended, at least the equivalent of that prescribed in this code in suitability, effectiveness, fire resistance, durability and safety.~~

~~**SECTION W102 – Definitions.** For the purpose of this Appendix W, certain terms are defined as follows:~~

~~**BUILDING SIZE** is the total square footage of all buildings located on the same property. The building size is calculated on the structure's exterior perimeter, excluding decks.~~

~~EXCEPTIONS: 1. Attached private garages accessory to Group R occupancies will not be included in the building size.~~

~~2. One story detached buildings used as tool and storage sheds, playhouses, and similar uses accessory to Group R-3 occupancies will not be included in building size, provided the projected roof area does not exceed 120 square feet and the building is located at least ten (10) feet away from any other building on the same property.~~

~~3. A detached building of any occupancy group and any size will not be included in the building size for another building on that same property provided it is at least fifty (50) feet away from any building on the same property.~~

~~**DEFENSIBLE SPACE** is defined in the Service in Action bulletin by the Colorado State University Cooperative Extension, No. 6.302.~~

~~**DEFENSIBLE SPACE, EXPANDED** is an additional area of clear space surrounding the proposed or existing structure(s) as determined by the building official, which is equivalent to two or more times greater than the minimum requirement defined in Service in Action bulletin by the Colorado State University Cooperative Extension, No. 6.302.~~

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~~**DRIVEWAY** is a thoroughfare for vehicles providing access from a public or private road to a dwelling unit or to a parking area serving structures, facilities, or an approved draft site. A driveway may serve no more than five (5) single-family units.~~

~~**DRIVEWAY STANDARDS** shall be in conformance with Chapter 4 of the County's adopted "Roadway Design and Construction Manual." The driveway may also be approved as meeting the standard by the Site Development Inspector or the applicable Fire Marshall/Chief.~~

~~**ONE-HOUR FIRE RESISTIVE THROUGHOUT** means not less than one-hour fire-resistive construction throughout the entire building, including all structural frame, walls and partitions, floor/ceiling, and roof/ceilings, for the purposes of this chapter only, no opening protection is required.~~

~~**PRIMARY COUNTY MAINTAINED ROADS** are roads and connections carrying heavy traffic flow into and out of subdivisions and residential or commercial centers (including municipalities) in various sectors of the County. Primary roads can have either asphalt surface and/or gravel surface, and are graded and drained. Roads in this category may carry school bus traffic and mail routes, and receive first day snow removal service by the Public Works (Road & Bridge) Division.~~

~~**SECONDARY COUNTY MAINTAINED ROADS** are roads that may not meet vertical or horizontal alignment standards, and may not allow for the safe passage of two vehicles. Roads with this classification which are maintained on a year-round basis may expect snow removal on the second or third day, and may not receive snow removal with each snowfall; existing conditions may curtail secondary service in order to focus operations on Primary Roads. Some roads in this classification may have a seasonal maintenance classification with no winter maintenance.~~

~~**SITE PLAN** shall include all existing and proposed structures and improvements, property boundaries and access all drawn to scale.~~

~~**STANDPIPE,** for purposes of this section, is a manual dry standpipe system that does not have a permanent water supply attached to the system. Manual dry standpipe systems require water from a fire department pumper to be pumped into the system through the fire department connection in order to supply the system demand. The standpipe must have prior Fire Marshall/Chief approval prior to using this option for points in Table W.~~

~~**SUPPRESSION SYSTEM** is an automatic fire-extinguishing system designed to provide life safety and some property protection by the rapid extinguishment or control of fire within buildings or structures. All required suppression systems must be approved by the applicable Fire Marshall/Chief before a permit will be issued.~~

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WATER SUPPLY is a source of water, equipped with an approved water source hydrant, which may be used by Fire Departments for fire protection. Water sources include man-made water sources and natural water sources capable of providing required fire flow meeting requirements set forth in NFPA 1142 and/or approved by the applicable Fire Marshall/Chief.

SECTION W103 – PLANS

W103 Plans. Plans submitted as a part of the building permit application shall include an accurate site plan and proposals describing any required mitigation such as, but not limited to, construction mitigation, water supply and suppression and/or monitored smoke detection systems.

SECTION W104 – CERTIFICATE OF OCCUPANCY

W104 Certificate of Occupancy. No certificate of occupancy shall be issued prior to all construction and site modifications described or referenced in this chapter being completed, inspected and approved.

SECTION W105 – FIRE MITIGATION PLAN

W105 Fire Mitigation Plan. Fire Hazard Mitigation shall be provided for as follows:

(1) DEFENSIBLE SPACE. Defensible space in compliance with the Colorado State Forest Service specifications as determined by the building official or designated agent.

(2) ROOFING MATERIALS. All new roof construction and any re-roofing shall have a Class A Roof Covering.

(3) CHIMNEY AND FLUE OUTLETS. Chimney and flue outlets shall be constructed with a minimum of a (10) ten feet of clearance from all vegetation.

(4) STRUCTURE SIZE. All structures 4400 square feet or more shall be equipped with an approved monitored automatic suppression system.

EXCEPTION: Buildings within response zone 1 and within 1000 feet of an approved water source, or buildings meeting alternate mitigation measures approved by the building official by recommendation from Fire Marshall/Chief.

(5) DRIVEWAY AND ROAD ACCESS REQUIREMENTS. Any building site which cannot meet all of the following requirements must acquire 300 points from "TABLE W" prior to the issuance of a building permit:

1. County driveway standards.
2. Site accessible by a Primary or Secondary #1 and #2 Roads.

EXCEPTION: Building official may waive requirements, if recommended to do so by the Fire Marshall/Chief for the District

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~~TABLE W-300 POINTS REQUIRED~~

~~Category~~	~~Criteria~~	~~Points~~
~~A. BUILDING SIZE~~		
	~~Building Size less than 1,300 Square Feet~~	~~125~~
	~~Building Size 1,300 to less than 2,400 Square Feet~~	~~100~~
	~~Building Size 2,400 to less than 3,600 Square Feet~~	~~50~~
	~~Building Size 3,600 Square Feet or more~~	~~00~~
~~B. ROAD ACCESS~~		
	~~Primary County Maintained Road~~	~~100~~
	~~Secondary County Maintained Road~~	~~75~~
	~~Other County Maintained or No Maintenance~~	~~00~~
~~C. RESPONSE ZONE~~		
	~~Response Zone 1 within 5 minutes of manned station~~	~~75~~
	~~Response Zone 2 within 10 minutes of manned station~~	~~50~~
	~~Response Zone 3 within 15 minutes of manned station~~	~~25~~
	~~(Manned station requires 4 on site fire fighters or 12 volunteers)~~	
~~D. WATER SUPPLY~~		
	~~Pressurized Hydrant within 5 miles~~	~~100~~
	~~NFPA 1142 Water source within 1,000 feet~~	~~100~~
	~~NFPA 1142 Water source outside 1,000 feet within subdivision~~	~~75~~
	~~NFPA 1142 Water source within 5 miles~~	~~25~~
~~E. FIRE-RESISTIVE CONSTRUCTION~~		
	~~Building of one-hour Fire-resistive throughout~~	~~100~~
	~~Exterior non-combustible construction~~	~~75~~
	~~One-hour Fire-resistive exterior~~	~~50~~
	~~Installation of Class A Roof System~~	~~75~~
	~~Installation of Gutter Guards~~	~~25~~
~~F. OTHER MITIGATION CONSTRUCTION~~		
	~~Expanded Defensible Space~~	~~100~~
	~~Installation of Suppression System~~	~~175~~
	~~Monitored Suppression System~~	~~200~~

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~~Monitored Smoke Detection/Alarm System 100~~
~~Installation of Standpipe (only when applicable) 150~~

Add and adopt **APPENDIX CHAPTER X** as follows:

APPENDIX X

GRADING AND EXCAVATION

SECTION X101

GENERAL

X101.1 Purpose

The purpose of these regulations is to:

1. Protect public safety, health, and welfare by regulating grading & excavation on private property;
2. Reduce increases in erosion and sedimentation over pre-development conditions; and
3. Ensure reclamation of disturbed land.

X101.2 Scope

This chapter sets forth standards and regulations to control excavation, grading, and earthwork, including fills, embankments, and retaining walls; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading & excavation construction.

X101.3 Authority

Clear Creek County is authorized by Colorado State Statutes to adopt and enforce provisions of a building code in accordance with the public health, safety, morals, and general welfare (C.R.S. §§ 30-28 201, 30-28-203, 30-28-204, 30-28-109, and 30-28-210), to plan for and regulate the use of land so as to provide planned and orderly use of land and protection of the environment in a manner consistent with constitutional rights ([~~[~~C.R.S. § 29-20-101(1)(h))~~]~~; plan for and regulate the uses of land for trade, industry, recreation, or other purposes (C.R.S. § 30-28-111); and to provide for enforcement through necessary guarantees, alterations, maintenance or use of property (C.R.S. §§ 30-28-114, 30-28-124, and 30-28-137).

SECTION X102

GRADING AND EXCAVATION PERMITS

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X102.1 General

Grading and Excavation Permits (grading permits) are intended to cover all earth disturbing activity located within a project site such as road construction, site work, and installation of utilities.

X102.2 Grading and Excavation Permit Requirement

Grading permits must be obtained whenever a property owner, developer, contractor, or other individual proposes to conduct earth-disturbing activity of more than 800 square feet of surface area and/or more than 10 cubic yards of earth material; construct a driveway; and/or construct a retaining wall over 4 feet in height, except as exempted in Section X104.

X102.3 Types of Grading Permits Single-Family or Duplex

1. Driveway Permit - Driveway permits must be obtained whenever an individual proposes to construct, modify and/or connect a driveway to an existing public or private roadway in unincorporated Clear Creek County. All work undertaken to construct or improve driveways shall conform to the design and construction standards contained in the *Roadway Design and Construction Manual*.
2. Minor Grading & Excavation Permit - Minor grading permits are required for projects with proposed earth disturbance of more than 800 square feet of surface area or 10 cubic yards of cut/fill volume, and are intended for use on developed single-family or duplex residential lots for building additions and accessory structures (excluding garages) with a footprint of more than 400 square feet and less than 800 square feet and minor grading projects that do not involve structures.
3. Major Grading & Excavation Permit - Major grading permits are intended for use on projects involving the construction of single-family and duplex residences, garage additions of any size; and building additions with a footprint of more than 800 square feet. All projects that require a major grading permit shall have a driveway that is compliant with current driveway standards or shall be required to obtain a Driveway Permit to construct or improve access in order to meet current driveway standards.

Multi Family, Commercial, Industrial

All earth disturbing activities involving earth disturbance of more than 800 square feet of surface area and/or create/modify a connection to a public or private roadway in unincorporated Clear Creek County for multi-family, commercial, recreational, institutional, and/or industrial land uses require a Driveway/Grading & Excavation Permit and shall conform to the design and construction standards contained in the *Roadway Design and Construction Manual* and grading & excavation standards.

Retaining Wall Permit

All retaining walls over 4 feet in total height, whether in a single line or multiple tiers, require a Retaining Wall Permit and shall be engineered and certified by an engineer prior to final approval. Total retaining wall height is measured from the ground surface at the toe of the lowest tier of the retaining wall system to the top of highest tier of retaining wall system. In order for retaining walls to be considered separate and act independently of

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each other, the retaining walls shall be separated by a horizontal distance of more than twice the height of the taller of either retaining wall.

X102.4 Grading Permit Procedures

Applications for grading permits must be submitted 15 calendar days prior to commencement of earth disturbing activity, unless the activity is exempt from permit requirements per Section X104. The Site Development Department is responsible for review and action on grading permits.

Approval shall be granted only if the proposed activity meets the standards and regulations in these regulations, the required fee has been paid, and if required, a financial guarantee has been provided in accordance with Section X102.4.4. Approval of a grading permit may be accompanied by conditions deemed reasonable by the Site Development Department to ensure protection of public health, safety, and welfare and compliance with these regulations. A grading permit must be signed by the County Engineer for it to be approved.

This section states procedures and requirements associated with grading permits for the following:

1. Submittal and review of applications;
2. Expiration of applications;
3. Expiration of permits;
4. Performance Guarantees; 5. Supervision of work; and
6. Inspections.

X102.4.1 Submittal Requirements for Grading Permits

The plans and specifications shall be prepared and signed by a Professional Engineer licensed by the State of Colorado to prepare such plans or specifications. Plans shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations.

The following information shall be submitted with any application for a Grading and Excavation Permit, unless specifically waived by the County Engineer. Applications that do not include the information and material below shall be deemed incomplete and may not be accepted by the Site Development Department.

1. Permit fees as required by resolution of the Board of County Commissioners.
2. Written Material:
    A. Application Form
    B. Zoning Verification Form
    C. Construction Site Sanitation Agreement
    D. Landowner Authorization Form (if applicable)
    E. Proof of Legal Access (if applicable)
        i. If the driveway crosses neighboring properties then legal, recorded easements are required to be submitted.

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ii. If access is within an easement or shown on a plat, identify and verify proposed access is within the recorded easement.
iii. If an un-platted common driveway is proposed, submit an easement signed by all affected property owners.

3. Plans and Specifications
   A. Legal description (i.e. subdivision name, lot, block, filing)
   B. Locations of all existing and proposed improvements
      i. Include a statistical inventory showing what is existing and what is proposed of the site coverage (impervious and building), open space, snow storage, etc.
   C. Property boundaries, lot dimensions, easements, and compliance with all plat notes
   D. Setbacks – Clearly show setbacks from all property lines. If there is a building envelope and/or disturbance envelope, then show and ensure that the structure(s) is within those designated areas.
   E. Limits of Disturbance
      i. Clearly show area of proposed disturbance
      ii. Include any temporary construction access iii. Include the total square footage of proposed disturbance iv. Estimate the quantities of excavation and fill, including quantities to be moved off and on site.
   F. Utilities – Show existing and proposed location of all utilities and connections including utility boxes/poles for electric, gas, cable, telephone, sewer and water, including On-site Wastewater Treatment Systems and wells
   G. Precise Grading Plans
      i. Engineering scale of 1:10 or 1:20
      ii. Show existing and proposed topography at 2-foot contour intervals in accordance with standard drafting practices.
      iii. If the topography of the proposed disturbance area(s) has a greater than 10% slope, a topographic survey prepared and stamped by a registered land surveyor shall be submitted.
      iv. Areas with slopes greater than 30% intended to be used for roads, driveways or structures shall be approved for use by a geologist or engineer in a soils report.
   H. Grading and Construction Specifications
      i. Maximum 1½:1 slope allowed on all finished contours or retain.
      ii. Retaining wall maximum = 4 feet without an engineered design (submit cross-section diagram for all proposed retaining walls). iii. Retaining walls > 4 feet in height require design and certification by a Professional Engineer licensed in the State of Colorado.
   I. Subsurface and Surface Drainage Plans
      i. Show foundation drain location and daylight.
      ii. Show all existing and proposed culverts with invert elevations and other drainage details.
   J. Streams, intermittent streams and drainage ditches

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K. Trail(s)
L. Significant natural or historical features
M. Water Quality Control Plan as required to show compliance with Section X103.5.2
N. Revegetation Plan as detailed in Section X103.5.3

4. Supporting Material
   A. Boundary and Topographical Survey
   B. Geotechnical Engineering or Engineering Geology Report

Professionals Responsible for Preparation of Plans and Reports

The qualified professionals responsible for the preparation of grading, drainage, geotechnical, erosion, and water quality control plans and specifications shall have the following responsibilities.

Civil Engineer

Grading plans and specifications shall be prepared and signed by a Professional Engineer licensed in the State of Colorado having knowledge and experience in civil engineering. It is the responsibility of the civil engineer or other qualified professional to incorporate all recommendations from the geotechnical report into the grading, drainage, erosion, and water quality control plans and specifications.

Surveyor

Surveys shall be prepared and signed by a Professional Land Surveyor licensed in the State of Colorado.

Survey Requirements

A boundary and topographic survey completed within 5 years of the permit application with the following minimum information shall be submitted with all grading permit applications in which disturbance of slopes greater than 10% is proposed.

1. The minimum scale of the survey shall be 1 inch to 60 feet or larger. Enough sheets shall be used to accomplish this end. Acceptable larger scales are 1 inch to 10 feet, 20 feet, 30 feet, 40 feet, or 50 feet. Scales of 1 inch to 100 feet or 1 inch to 200 feet may be allowed by the Site Development Department for survey documents with large lots and tracts if it is legible.
2. The survey shall include the date of the survey, north arrow, and written and graphic scale on each sheet.
3. Existing topography at 2-foot contour intervals shall be shown in areas of all proposed disturbance.
4. The width shall be shown for all public rights-of-way.
5. The traveled surface of each existing street/road shall be shown.
6. All easements shall be clearly labeled, identified, dimensioned and tied to reference points within the site and shown by fine short dashed lines. Overlapping or crossing easements shall vary the dash length slightly to improve readability. Existing easements shall bear notation of dedication of conveyance by recordation information. If existing easement bearings are rotated due to a change in basis of bearing, a note

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shall be added to the survey indicating such. If any easement already of record cannot be definitely located, a statement of the existence, the nature thereof and its recorded reference shall be placed in the note section. Easement shall be designated, and the disposition thereof indicated in the note section.

7. Existing improvements including building structures, fences, above-ground utilities, drainage improvements, well, and septic systems shall be shown.
8. All property boundaries with distances and bearings shall be shown.

Geotechnical Engineer or Professional Geologist

The geotechnical engineer's or the professional geologist's area of responsibility shall include, but need not be limited to, preparation of geotechnical reports analyzing soil and geological conditions on site and recommending how ground is to be prepared to receive fills, how fill slopes are to be designed and compacted and the design of buttress fills and cut slopes to be allowed with respect to these conditions. The geotechnical engineer or engineering geologist shall also include hydrological conditions of the site in this report and the design of subdrains or other groundwater drainage device, if needed, and how surface drainage is to be controlled.

Geotechnical Engineering Report

If slopes in excess of 3:1 (33.3%) are proposed to be disturbed, then a geotechnical engineering report for slope stability, prepared by a Professional Engineer licensed in the State of Colorado or a professional geologist with experience in geotechnical engineering, is required unless this requirement is waived by the County Engineer. Roadway embankment slopes shall be included in the slope analysis of a property, and disturbance of roadway embankments may be grounds for the requirement of a slope stability report, depending on the extent and severity of the proposed impacts.

The geotechnical engineering report shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinion on the adequacy for the intended use of sites to be developed by the proposed excavation/grading, as affected by geologic factors. The geotechnical engineering report for slope stability shall also include recommendations and information necessary to protect the area from construction induced instability, including limiting erosion potential, stabilizing fill placement, identifying lateral earth pressures (active, passive, and equivalent fluid pressure) for use in the design of foundations and retaining walls, controlling runoff, and methods of anchoring structures proposed on the property. The slope stability report shall reflect all proposed improvements. Any changes to the proposed plans may necessitate follow-up reviews and amendments to the report by the geotechnical engineer.

In circumstances where slopes of 3:1 or greater exist but there is little to no likelihood of slope instability being induced be development, the County Engineer may waive the requirement for a geotechnical engineering report. If the County Engineer chooses not to waive this requirement, then permit review will be ceased until the report is provided.

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The submittal of any proposal involving development of a lot with steep slopes shall include a slope analysis plan sheet, graphically depicting the location of steep slopes and those slopes proposed to be disturbed.

X102.4.2 Expiration of Applications

Applications received in which no permit has been issued within 180 days of the date of application shall expire. Any plans submitted for review may thereafter be returned to the applicant or destroyed by the Site Development Department.

The Site Development Department may extend the time for action by the applicant for a period not to exceed 180 calendar days upon written request by the applicant if circumstances beyond the applicant's control have prevented action on the grading permit application from being taken.

X102.4.3 Expiration of Permits

Each grading permit shall be valid for one year from the date issued. If satisfactory evidence that unusual difficulties have prevented the work from being completed within one year, the Site Development Department may grant extensions of time necessary to complete the work.

If a Building Permit associated with the work to be completed by a grading permit is issued for the same site, the expiration of the grading permit may be tied to the Building Permit expiration date.

X102.4.4 Performance Guarantees

The Site Development Department may require performance guarantees in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions, drainage and erosion devices will be constructed, disturbed areas will be revegetated and any adverse impacts of such work is mitigated.

All performance guarantees shall include an executed Security Agreement approved by the Clear Creek County Board of County Commissioners and shall be either:

1. In cash, or
2. By Letter of Credit issued by a bank located and physically doing business in the State of Colorado.

The performance guarantees shall be in the amount of 125% of the estimated cost of the proposed scope of work.

The work will be deemed complete for purposes of starting the warranty period upon final inspection approval by the Site Development Inspector and delivery of an acceptable as-built drawing to the Site Development Department.

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A letter of credit performance guarantee will be drawn on if the conditions for its release are not satisfied within ten (10) business days before its expiration, unless prior to that time a replacement letter of credit or extension is delivered to the Site Development Department.

X102.4.5 Supervision of Grading and Excavation Work

Grading and excavation work shall be completed under the supervision of the permit holder. During construction, the permit holder must exercise adequate control over grading and excavation work to ensure the work conforms to the approved plans and specifications, and to any required geotechnical report. In performing this responsibility, the permit holder may retain and consult with qualified professionals. The responsibilities of these qualified professional are stated below.

If, in the course of fulfilling these responsibilities the contractor or qualified professional of record is changed, the permit holder must notify the Site Development Department of the change in the responsible professional.

Professional Responsible for Supervision of Field Work

The permit holder has primary responsibility for supervision of grading and excavation work in the field to ensure that such work is in conformance with approved plans and specifications. Qualified professionals retained by the permit holder shall observe work as it is performed and make recommendations as follows.

Civil Engineer

1. The civil engineer or other qualified professional who prepares the grading, drainage, and/or water quality control plans and specifications shall observe the establishment of line, grade, and drainage of the graded area and shall recommend to the permit holder whether or not such work conforms to the approved plans and specifications.
2. Upon completion of field work, the qualified professional shall issue a written statement of substantial completion and compliance with approved plans and specifications. Alternately, the qualified professional may submit revised as-built plans and a written statement of compliance with the original design intent.

Geotechnical Engineer or Professional Geologist

The geotechnical engineer or professional geologist shall conduct field tests for required compaction and field observations of subdrain and surface drainage installations and shall recommend to the permit holder whether or not such work conforms to the approved geotechnical report and grading plans. The responsibility for conducting field tests for compaction may be assigned to an engineering firm having experience in soils testing where compaction tests will be conducted under the supervision of a licensed engineer. **X102.4.6 Inspection of Grading and Excavation Work**

1. **Initial Site Inspection**
   A. Before a grading permit is issued, an approved inspection of initial site conditions and temporary erosion controls must be completed by the Site Development Department. An Initial Site Inspection may be requested at the time of permit submittal or after review and approval of the plans and

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specifications by the Site Development Department. If revisions are required by the Site Development Department during the review process that require a change to the improvement locations after an Initial Site Inspection has been completed, the location of the staked improvements at the site must be moved to the revised locations and re-inspection of the site by the Site Development Department requested. Prior to requesting an Initial Site Inspection, the permit applicant shall:

i. Have a Professional Surveyor licensed in the State of Colorado pin the corners of each lot where structures or improvements are proposed. The pins shall carry caps denoting the surveyor's license number; ii. Flag the property lines between pins;

iii. Stake improvement locations of the proposed driveway centerline, excavation site and/or building footprint in accordance with the plans; and

iv. Install temporary erosion controls in accordance with the Water Quality Control Plan and the *Best Management Practices Manual*.

B. During the staking of improvement locations and site grading and excavation work, the permit holder shall exercise adequate control over the work and conduct inspections as necessary to ensure that location and grade elevations of roads, driveways, parking areas, drainage improvements, building pads, foundations, erosion controls and other site improvements conform to the approved plans and specifications, plat conditions, and applicable zoning regulations. The permit holder may contract with qualified professionals to conduct field observations, but the ultimate responsibility for quality control shall rest with the permit holder.

C. The Site Development Department shall supply a copy of the approved grading permit and approved plans to the permit holder. The permit holder is responsible for the posting the permit and plans at the construction site so it is visible from the road and available for use by the Site Development Department for noting results of inspections.

D. After issuance of an approved grading permit by the Site Development Department, the permit holder may apply to obtain a Building Permit from the Building Department. No Foundation Inspection by the Building Department shall be conducted until the Site Development Department has approved a Rough-In Inspection of the driveway as required in Section X102.4.6.2. It is recommended that this inspection be requested prior to setting foundation forms to minimize the cost of relocating site improvements if the inspection reveals that the site improvements have not been located according to the approved plans and applicable zoning regulations.

2. Rough-In Inspection

A. Before a Concrete Pre-Placement Inspection can be called in for a Building Permit, the driveway must be constructed with the proper width, grade, and approach to the access road in accordance with the approved plans and

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specifications. The permit holder is responsible for calling the Site Development Department for a Rough-In Inspection.

B. If there is a Building Permit associated with the grading permit and the Rough-In Inspection of the site work reveals that the location and grade of the site improvements conform to the approved plans and applicable zoning regulations, the Site Development Department shall notify the Building Department.

C. Construction Period: The permit holder shall exercise adequate control over the grading and excavation work and conduct inspections as necessary to ensure that location and grade elevations of roads, driveways, parking areas, drainage improvements, building pads, foundations, erosion controls and other site improvements conform to the approved plans and specification, plat conditions, and applicable zoning regulations. The permit holder may contract with qualified professionals to conduct field observations, but the ultimate responsibility for quality control shall rest with the permit holder. The Site Development Department may inspect the project site at periodic intervals to verify that the permit holder is fulfilling their responsibilities and that grading and excavation work is in compliance with approved plans and specifications. Any work that does not conform shall be brought to the attention of the permit holder, both verbally and in writing, and the permit holder shall make corrections as needed. If corrections are not made, further project construction shall be stopped.

D. A construction survey may be required if the Site Development Department has reason to believe that a problem exists with the location and/or elevation of site improvements that cannot be verified or resolved.

E. If the permit holder finds it necessary to make field changes during construction, they shall contact the Site Development Department prior to implementing the changes. The Site Development Department will determine if amended plans need to be submitted and approved prior to work proceeding. The Site Development Department may require that as-built plans showing approved changes.

3. Final Inspection

A. At the conclusion of grading and excavation work and prior to the issuance of occupancy certificates for completed structures, the permit holder shall request a Final Inspection from the Site Development Department. All required written approvals, reports, and as-built surveys and drawings shall be submitted to the Site Development Department prior to requesting a Final Inspection. All grading and excavation work including drainage facilities and water quality controls must be constructed in accordance with the County's grading and excavation regulations and approved plans and specifications. All construction materials, temporary sanitation facilities, trash and debris shall be removed from the site and all disturbed areas revegetated. Locations of structures must comply with all plat, site plan conditions, and the County's applicable zoning regulations. The Site Development Department may require the permit holder

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to submit an Improvement Location Certificate, prepared by a Professional Surveyor licensed in the State of Colorado.

B. No occupancy permits shall be issued and no use of a graded site shall commence until the County Engineer has inspected and approved the final grading and location of structures.

C. If any grading inspection reveals work which does not conform to approved plans and specifications or to the County's grading standards, the permit holder shall be responsible, at his expense, for all corrective work necessary to bring work into conformance. If the permit holder fails to perform such work, the County shall use the permit holder's financial guarantee to eliminate hazardous situations, complete drainage and erosion control devices and revegetate disturbed areas.

D. If site conditions do not allow for grading and excavation work to be completed and/or inspected due to circumstances outside the control of the permit holder such as seasonal snow coverage, occupancy permits may be issued if the Site Development Department determines that unfinished grading work does not pose a hazard to public health, safety, and welfare and the permit holder posts a performance guarantee with the County in an amount sufficient to complete the grading and excavation work in accordance with the approved plans and specifications as required by Section X102.3.4.

SECTION X103

GRADING AND EXCAVATION STANDARDS

Grading plans and specifications submitted for the purpose of obtaining a Grading and Excavation Permit and any earth-disturbing activity done on site must comply with the standards found in these regulations.

Where any development is proposed, finished grades shall be shown clearly on the plans. Where finished grades exceed 3:1 (33.3%), means of temporary stabilization will be required, along with additional temporary erosion and sediment control measures as deemed necessary and appropriate. The maximum slope of un-retained finished grades will be 1½:1 (66.7%) unless a geotechnical report justifying a steeper slope is provided.

X103.1 Setbacks

Cut and fill slopes shall be set back a minimum of 5 feet from property boundaries and structures unless substantiating data is submitted justifying reduced setbacks. Minor grading may be permitted within the setback with finished grades not to exceed 3:1 (33.3%). Roads and driveways are exempt from setback requirements if it is adequately demonstrated that the grading will not adversely impact properties or structures.

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X103.2 Cut Slopes

The slopes of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 1½:1 (66.7%) unless a geotechnical report justifying a steeper slope is provided.

Exception: A cut surface in bedrock shall be permitted to be at a slope of 1:1 (100%).

X103.3 Fill Slopes

Unless otherwise recommended in a geotechnical report, fills shall comply with the provisions of this section.

1. Surface Preparation

The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.

2. Benching

Where the existing grade is at a slope steeper than 5:1 (20%) and the depth of fill exceeds 5 feet, benching shall be provided and a key shall be provided that is at least 10 feet in width and 2 feet in depth.

3. Fill Material

Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches in any dimension shall be included in fills.

4. Compaction

All fill material shall be compacted to 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not to exceed 12 inches in depth.

5. Maximum Slope

The slope of fill surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 1½:1 (66.7%).

X103.4 Retaining Walls

Retaining walls shall be constructed in accordance with engineering practices and the design provided. Retaining walls over 4 feet in total height shall be designed, inspected and certified by a Professional Engineer licensed in the State of Colorado. Inspections must be performed as required by the engineer. In the event that a wall exceeds 4 feet in height but was not engineered, a certification letter or as-built prepared by a Professional Engineer licensed in the State of Colorado shall be provided. If the engineer has not observed the wall construction as needed then the wall must be dismantled and reconstructed with observations as required.

1. Engineering Requirements

a. Construction plans must indicate how the proposed wall height will vary along its length.
b. Details must have elevations showing top (TOW) and bottom of wall (BOW) for critical points along each wall length.

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c. Supporting calculations must demonstrate an adequate factor of safety with respect to:
    - Bearing capacity
    - Overturning
    - Sliding
    - Internal stability
    - Global stability may be required dependent upon site conditions **Note:** Surcharge loads due to sloping backfill, adjacent vehicles and structures must be taken into account

    The design parameters used for retaining wall analysis may require consultation from a geotechnical engineer. Sites with steep slopes, vehicles or structures near the walls and/or walls exceeding 8 feet in height may require a specific geotechnical study.

2. Setbacks

Setbacks for retaining walls shall be at least 5 feet from property boundaries and 25 feet from off-site occupied structures. The Site Development Department may waive setback requirements provided the applicant can adequately demonstrate that activities occurring within the setback will not adversely affect adjacent properties. Retaining walls associated with roads and driveways are exempt from setback requirements if it is adequately demonstrated that the retaining walls will not adversely impact properties or structures.

3. Drainage

When surface drainage is discharged onto any adjoining property, it shall be discharged in such a manner that it will not cause an increased hazard to the stability of any cut and fill slope or any building or structure. Runoff shall not be discharged from the site in quantities or at velocities substantially above those which occurred before grading except into drainage facilities such as roadside ditches or drainage easements where appropriate energy dissipation devices have been installed.

4. Tiered Walls

If a series of retaining walls is desired, the required horizontal distance between walls, as measured from the back of the lower wall to the face of the upper wall, is a minimum of 4 feet and a minimum of 6 feet if either retaining wall exceeds 8 feet in height. No individual wall may exceed 12 feet.

5. Grading

If the construction of a retaining wall will result in grading/disturbance of more than 800 square feet of area and/or a cut/fill volume of more than 10 cubic yards, a grading permit will be required.

6. Easements

Encroachment into utility easements requires approval by all agencies with interest in the easement. Encroachment into drainage easements requires approval from the Site Development Department.

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X103.5 Consistency with Approved Plans

1. Where a final plat has been approved for a site for which grading permits are requested, the grading plans submitted shall be in substantial compliance with any improvement plans approved with the plat. The location and design of roads, trails, sidewalks, pathways, drainage improvements and utility lines shall be consistent with the improvement plans, unless allowance is made by the County Engineer for changes based on additional information on field conditions. Changes to improvement plans must meet County design standards (*Roadway Design and Construction Manual*), unless a deviation from these standards is granted. Changes to plans for utility lines must also be approved by the affected utility.
2. Where a site plan, special use permit, deviation or other development review having a site plan has been approved for a project for which grading permits are requested, the location of building pads, parking areas, driveways, roadways, trails, sidewalks, pathways, drainage improvements, berms and other site work shown on the grading plans shall be in substantial compliance with the approved plans. If a developer proposes a grading plan that differs from the approved site plan, the grading plan shall be referred to the Planning Department for a determination whether or not a revision of modification is needed. If a revision or modification is needed, approval shall be obtained prior to issuance of any grading permit.

X103.6 Conformance with *Roadway Design and Construction Manual*

Clear Creek County has adopted road and bridge design and construction standards that appear in the *Roadway Design and Construction Manual*. These standards specify requirements for the following:

1. General Design Elements (Section 2.4.2)
2. Specific Design Elements (Section 2.4.3)
3. Standards for Parking Areas (Section 2.8.2)
4. Landscaping and Erosion Control (Section 2.9)
5. Construction of Roads (Sections 3.3.2 thru 3.3.9)
6. Standards for Driveway Design (Section 4.7.3)

Grading and excavation plans submitted in compliance with these regulations and earth disturbing activities subject to these regulations must conform to the standards in the *Roadway Design and Construction Manual*.

X103.7 Consistency with Geotechnical Report

Persons applying for a grading permit shall be required to submit a geotechnical report unless this requirement is waived by the County Engineer. Where a report is required, it is the responsibility of the civil engineer or other qualified professional who prepares the grading plans and specifications to incorporate the recommendations contained in the geotechnical report into these plans and specifications.

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X103.8 Stormwater Quality and Erosion Control Standards

These stormwater quality and erosion control standards are created to prevent pollution of surface waters, prevent sedimentation of wetlands, protect creeks and streams and their associated floodplains, control and manage increased runoff due to local development and to limit civil disputes arising from unlawful trespasses in the form of erosion and sedimentation, as well as to avoid overwhelming roadway drainage systems, culverts, and other stormwater conveyances that may exist in the County.

The Mile High Flood District's *Urban Storm Drainage Criteria Manual*, Clear Creek County's M*anaging Stormwater to Protect Water Resources in Mountainous Regions of Colorado* and/or *Best Management Practices Manual* shall be applied to address stormwater quality management and erosion control for all proposed projects and developments. All stormwater reports and plans shall include necessary analyses, mitigation measures, and improvements needed to meet these stormwater quality and erosion control standards.

1. Plan Requirements

Prior to approval of a proposed subdivision, site plan or issuance of any building or grading permit, plans that meet the following standards shall be submitted to and approved by the Site Development Department:

A. Prevention of soil loss from the development site by promoting infiltration of storm events to the water quality volume represented by the average 90th percentile cumulative frequency annual rainfall event (0.60 inches). This standard shall be met both during and after construction.
B. Prevention of any increase in the historic rate of run-off from the development site produced by the 10-year and 100-year design storms. This standard shall be met both during and after construction.
C. Prevention of any direct discharge of storm water to a lake, stream or intermittent stream.
D. Provision for adequately sized detention facilities where dewatering of excavations is needed or construction site water management is required. E. Diversion of run-off from snow storage areas into detention facilities.

2. Water Quality Control Plan

A water quality control plan for the site that meets the standards set forth in Sections X103.5.1.A through X103.5.1.E shall be prepared by a Professional Engineer licensed in the State of Colorado having knowledge and experience in civil engineering and hydrology.

Construction of single-family residential units shall be exempt from the requirement to provide a specific water quality control plan if:

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A. The entire subdivision is provided with central erosion and run-off controls such as a community desilting pond for all drainage from the subdivision; or
B. The Site Development Department determines that exempting construction will not have a significant impact on water quality.

The Site Development Department retains the authority to apply these standards when water quality impacts are likely to be significant, such as, but not limited to, construction on slopes greater than 3:1 (33.3%), construction within 25 feet of a lake, stream or river or if wetland disturbance will result.

3. Revegetation Plan

A revegetation plan shall be prepared by an individual having a degree in landscape architecture or comparable expertise, and sufficient experience in landscaping installation and maintenance to ensure the success of the plans they propose.

Revegetation plans shall provide for site coverage of disturbed areas after development equal to or better than vegetative coverage prior to development, where such areas are not intended to be used for roads, driveways or parking areas. Vegetated site coverage shall be native species, or alternatively, other hard species provided with an irrigation system.

In all cases, disturbed areas to be revegetated shall meet the following minimum standards:

A. Slopes constructed at less than 3:1 can be hand seeded and mulched.
B. Slopes constructed at 3:1 to 2:1 shall be hydro seeded/hydro mulched.
C. Slopes constructed at 2:1 to 1½:1 shall be hydro seeded/hydro mulched and have slope netting/erosion control blankets installed (or equivalent erosion control measure with the approval of the County Engineer).

In areas where it has been determined that the native soil or site fill is not capable of fostering seed growth, soil amendments will be required.

X103.9 Conformance with Zoning Regulations

All earth-disturbing activity subject to grading and excavation regulations shall also meet the requirements in the County's zoning regulations.

X103.10 Compliance with Applicable 404 Permit Requirements

If the site contains areas deemed a jurisdictional wetland by the U.S. Army Corps of Engineers, the applicant must either present evidence of compliance with Section 404 of the Federal Clean Water Act, or present evidence that work will be done under the auspices of the Colorado Department of Wildlife nationwide 404 permit. Documentation and compliance with all potential Section 404 matters shall remain the sole and ongoing responsibility of the project proponent, and any failure to maintain such compliance may lead to suspension or revocation of any approvals provided under this Code.

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X103.11 Hazards

Whenever the County Engineer determines that any existing excavation, fill or embankment on private or public property has become a hazardous condition to life and limb, endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the County Engineer, shall within the period specified therein repair or eliminate such excavation or embankment to eliminate the hazard and to be in conformance with the requirements of this Code.

SECTION X104

EXEMPTIONS TO GRADING AND EXCAVATION PERMIT REQUIREMENT

The following activities shall be exempt from requirements to obtain grading permits:

1. Earth-disturbing activities for agricultural operations.
2. Routine road maintenance such as snow removal, grading of gravel roads, and cleaning of drainage ditches.
3. Any earth-disturbing activity involving less than 800 square feet of surface area; however, if the Site Development Department has determined an activity of this type will result in hazardous conditions or water quality impacts, the requirement for obtaining a grading permit shall be met.
4. Any earth-disturbing activity necessary for the installation or renovation of landscaping associated with a developed single-family or duplex unit. Grading or excavation work with a volume in excess of 50 cubic yards is beyond the scope of this exemption and requires grading permits.
5. Any activity specifically covered by an approved right-of-way permit issued by the Clear Creek County Road & Bridge Department.
6. Any activity specifically covered by an approved OWTS permit issued by the Clear Creek County Environmental Health Department.
7. Mining, quarrying, processing or stockpiling of rock or soil where established and provided for by law and controlled by other regulations, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

These exemptions do not alter any obligation to comply with other regulations contained within these regulations.

SECTION X105

DEVIATIONS

X105.1 Exceptions to Design and Construction Standards

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Exceptions from the design criteria and construction specifications contained in, or relied on by reference by, this Appendix Chapter X may be granted by the County Engineer, at their discretion, under the following circumstances:

1. Where, by reason of exceptional topographic or physical conditions or other extraordinary and exceptional situations or conditions, the strict application of these regulations would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardship upon, an individual proposing to construct a driveway provided the conditions, practical difficulties or hardship are not self-imposed.
2. Where an individual is proposing to construct an improvement governed by this Chapter and the strict application of these regulations would result, in the opinion of the County Engineer, in excessive cut and fill slopes, visual scarring, or other environmental damage, deviations from road design standards may be granted if granting the lesser standard will result in reduced environmental damage and the intent of the specific standards in question are being preserved.

X105.2 Consideration for Decisions on Deviation Requests

In reviewing deviation requests, the following criteria shall be considered to the extent applicable:

1. The effect of using a lesser standard on public health and safety including the ability of emergency vehicles to gain access, using road(s), bridge(s) or driveway(s) built to a lesser standard.
2. The existence of alternative design options that could accomplish the same objectives with less damage and/or less departure from the standards.
3. The severity of the terrain.
4. The availability of alternative alignments where the same or more stringent road standards could be met with the same or less environmental damage.
5. The length of road segments which will be built to a lesser standard.
6. The amount of snowfall anticipated and degree of exposure of the road surface to sun.
7. Comment from the appropriate public safety and other interested agencies received during the referral period, if applicable.
8. If a referral is made to a public safety agency that determines that granting the deviation is reasonably expected to impair the agency's ability to provide public safety service on the property or nearby properties, the application must be denied, unless the impairment can be mitigated, in which case the application may be approved on the condition that acceptable mitigation techniques are present or constructed and maintained.

X105.3 Submittal Requirements

The Site Development Department will determine the required submittal information based on the type of deviation being requested, surrounding circumstances and above criteria to be considered. Typical submittal requirements include:

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1. An application form as provided by the Site Development Department;
2. A narrative and/or supplemental material which address the circumstances in Section X105.1 and the criteria of Section X105.2 to include;
    a. The hardship imposed by the standard and why the proposed improvement cannot reasonably comply with the standard,
    b. How the deviation request will not confer a personal convenience, profit or special privilege to the owner/applicant, and
    c. How the hardship has not been self-imposed by the owner/applicant.
3. The appropriate fee as established on the Fee Schedule; and
4. Other information deemed reasonable by the Site Development Department.

X105.4 Appeals

The Board of County Commissioners shall be responsible for hearing appeals from determinations on deviation applications. Appeals may only be filed by persons who are determined to be materially and adversely affected by the decision of the County Engineer.

X105.4.1 Process for Appeal

X105.4.1.1 An appeal must be filed with the Site Development Department within sixty calendar days following the issuance of the decision being appealed. If an appeal submittal is deemed incomplete by the Department, the applicant will be given thirty calendar days within which to complete it.

X105.4.1.2 The applicant shall provide the Site Development Department with a written appeal addressing the circumstances in Section X105.1 and criteria of Section X105.2 as they relate to the proposed deviation.

X105.4.1.3 The submittal shall be reviewed in a timely manner for completeness by the Department. The applicant shall be notified of any missing or incomplete documentation. An incomplete submittal shall not be processed.

X105.4.1.4 The Department will notify property owners whose boundaries are within 300 feet of the subject parcel and any referral agencies that may be affected by the proposed deviation. The applicable agencies shall be determined per case and based upon the property development considerations.

X105.4.1.5 Adjacent property owners and referral agencies shall be given twenty-one calendar days to submit written comments to the Department.

X105.4.1.6 Based upon the submittal documentation, property development consideration, and comments received, the Department will prepare a staff report and provide a

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recommendation to the BOCC for the public hearing, a copy of which will be provided at the same time to the applicant and any person or agency which submitted comments.

X105.4.1.7 During the public hearing, the BOCC shall evaluate the submittals, referral comments, staff report, and public testimony, and make a decision to approve, approve with conditions, or deny the appeal.

X105.4.1.8 Following the BOCC decision, the Department shall notify the applicant of what is required to finalize the decision, prepare the final resolution and obtain the BOCC Chairperson's signature. The fully executed resolution and all applicable attachments shall be filed with the County Clerk and Recorder's Office.

SECTION X106

DEFINITIONS

The following definitions are provided herein for the sole purpose of interpreting, administering and implementing the County's Grading and Excavation Regulations. For the purposes of these Grading and Excavation Regulations only, the definitions set forth herein shall control and take precedence over any other definitions.

Agricultural Operations – Operations associated with the growing of timber or crops (with the exception of retail marijuana cultivation facilities and medical marijuana optional premises cultivation operations), and raising of livestock including but not limited to such activities as plowing, planting, scarifying soils, construction and clearing of irrigation ditches, burning fields or irrigation ditches, construction of roads, buildings and stock ponds within farm or ranch operations.

Approved Plans – Current grading, drainage, water quality control and/or revegetation plans that have been approved by the County Engineer.

Bench – A relatively level step excavated into earth material on which fill may be placed.

Civil Engineer – A Professional Engineer licensed in the State of Colorado having knowledge and experience in the field of engineering.

Civil Engineering – The application of the knowledge of the forces of nature, principles of mechanics and properties of materials for the evaluation, design and construction of civil work for the beneficial use of mankind.

County Engineer – The director of the Clear Creek County Site Development Department or his authorized representative.

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Driveway – An accessway for vehicles providing a connection from a public or private roadway to either individual single-family residences or to a parking area serving multi-family residences; commercial business; recreational, institutional, or industrial land uses.

Earth-Disturbing Activity – Mechanical removal of any rock, natural soil, fill or any combination thereof, the placement or stockpiling of fill or the clearing of trees and vegetation for the purpose of constructing roads, site improvements or structures, installing utility lines or making use of the land in other than its natural state.

Erosion Controls – Desilting facilities and erosion protection, including diversion of upland drainage, use of downgradient perimeter berms or stormwater fencing during construction and prior to site stabilization, appropriately sized culverts, use of energy dissipation devices in steep or transitional areas, and effective planting, to protect property, watercourses, public and private facilities and receiving waters from abnormal deposition of sediment or dust.

Excavation – The mechanical removal of earth material.

Fill – A deposit of earth material placed by artificial means.

Geotechnical Engineer – A Professional Engineer licensed in the State of Colorado having knowledge and experience in the field of Geotechnical Engineering.

Geotechnical Engineering – The application of geologic, soils and hydrologic knowledge and principles in the investigation and evaluation of naturally occurring rock, soil, ground and surface water for use in the design of civil works.

Grade – The number of feet of horizontal distance traveled for every one (1) foot of vertical rise in the ground surface expressed as a ratio (e.g. a 3:1 grade means three (3) feet of horizontal distance is traveled for every one (1) foot of vertical rise in the ground surface).

Grade, Existing – The ground surface prior to grading.

Grade, Finish – The final grade of a site that conforms to the approved plan and provides final site drainage.

Grade, Natural – The ground surface unaltered by artificial means.

Hazardous Condition – A condition when the state of any natural ground, natural slope, excavation, fill or drainage device, which exists on private or public property, is a menace to life or limb, a danger to public safety or endangers or adversely affects the safety, usability or stability of adjacent property, structures, or public or private facilities.

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Professional Geologist – A person who is a graduate of an institution of higher education which is accredited by a regional or national accrediting agency, with a minimum of thirty semester (forty-five quarter) hours of undergraduate or graduate work in a field of geology and whose post baccalaureate training has been in the field of geology with a specific record of an additional five years of geological experience to include no more than two years of graduate work.

Roadway – A public or private accessway for vehicles which serves more than five individual single-family residences; provides connections between residences, businesses, community facilities and other lands uses; and/or otherwise provides vehicular access across and through Clear Creek County.

Structure – A wall and roofed building which is principally above ground, as well as a manufactured home.

~~2021~~2024 INTERNATIONAL BUILDING CODE

CHAPTER 1 SCOPE AND ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with:

101.1 Title. These provisions shall be known as the Building Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

101.4 Referenced codes.

101.4.3 Plumbing. Delete the last sentence and replace with the following:

Private sewage disposal systems are regulated by the Clear Creek County Environmental Health Department.

Delete Section 101.4.4 Property maintenance in its entirety

SECTION 103 - DEPARTMENT OF BUILDING SAFETY

Delete section 103.1 Creation of enforcement agency and replace with:

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103.1 Creation of enforcement agency. The Building Department is hereby created and the official in charge thereof shall be known as the building official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION 105 – PERMITS

~~Section 105.2 Work Exempt from permit delete Number 1 under "Building" and replace with:~~
~~1. One-story detached accessory *structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15m^2) and the *structure* is located more than 50 feet (15240 MM) from the nearest adjacent *structure*.~~

Add section R105.1.3 License Required:

105.1.3 License Required. All persons undertaking work which requires a permit as provided in Section 105, or seeking to obtain that permit from the County, are required to have a currently valid contractor's license issued from Clear Creek County Planning and Building Services Department. That license shall have been issued by the County in accordance with the provisions of the Clear Creek County Contractors Licensing Requirements and the Contractor Licensing Regulations adopted by the Board of County Commissioners, and any regulations subsequently adopted by the Board of County Commissioners, as said resolution and regulations may be amended from time to time by said Board.

Exception:

1. The Building Official may waive the provisions of this section where it can be established that no license exists for the installation, alteration, or repair of a certain type of work requiring a permit, or due to other unique circumstances.

Section 105.2 Work Exempt from permit delete Number 1 under "Building" and replace with:
1. One-story detached accessory *structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15m^2) and the *structure* is located more than 50 feet (15240 MM) from the nearest adjacent *structure*.

Add sentence to **105.3.1 Action on application**:
The building official is authorized to deny a permit to an applicant or property not meeting the provisions of this code, to any person who has an outstanding failure to appear in court pertaining to a county violation, a person or property with associated outstanding permit(s) or fees related to any county application or permit, or to any person or property not in compliance

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with any other county regulations. Permits may be issued once conditions set by the building official are satisfied.

Delete Section 105.5 in its entirety and replace with following:

105.5 Expiration. Every permit issued by the building official under the provisions of this code shall expire by limitation and become null and void if more than 180 days pass before an initial inspection or 180 days pass between inspections after the issuance of such permit. Work must be pursued and completed in good faith to complete construction in a timely manner as determined by the building official.

105.5.1 Renewal Permit. A renewal for a permit may be applied for when a permit has expired and a full fee will be assessed unless the permit has received approvals from the building official through all of the rough inspections and provided no changes have been made to the original plans and specification, then a 50% fee will be charged. The rough inspections include all Framing, Mechanical and Plumbing. The renewal will be subject to the provisions of the currently adopted code unless technically infeasible. Trade permits may be renewed if not more than 1 year has elapsed from original permit issuance for 50% permit fee.

105.5.2 Permit Extension. Any permittee holding an unexpired permit may apply for an extension of the time to complete the work and inspections under that permit when the permittee is unable to complete the work within the time required by Section 105.5 due to circumstances beyond the control of the permittee. The extension shall be requested in writing prior to the expiration of the permit and justifiable cause for the extension shall be demonstrated. The building official is authorized to grant an extension of time for a period of 180 days.

Add the following Sections:

105.10 Transfer of Permits. An unexpired permit may be transferred from one party to another upon written application to the building official by the new owner of the property or his/her authorized agent, provided there is no change in the plans and specifications. Documentation of the change in ownership must be provided by the new owner. No change shall be made in the expiration date of the original permit. A fee is required to transfer the permit, please refer to the building permit fee schedule for the fee schedule.

SECTION 109 – FEES

109.1 Payment of Fees. Add the following sentence:

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Any reduction or waiver of a permit fee must be approved by the Board of County Commissioners.

Delete Section 109.2 in its entirety and replace with the following:

109.2 Schedule of Permit Fees. A fee for each permit shall be paid to the Building Department as set forth in the building permit fee schedule.

Delete Section 109.3 in its entirety and replace with the following:

109.3 Building Permit Valuations. The applicant for a permit shall provide an estimated value of all the work to be performed, including materials and labor, for all building, mechanical and plumbing, at the time of application. The determination of value or valuation under any of the provisions of this Code shall be made by the building official. The valuation to be used in computing the building permit fees shall be the total value of all construction work and materials for which the permit is issued, or annual average cost of construction as published in the "Buildings Safety Journal" by the International Code Council. No adjustment will be made by the regional modifier.

Delete 109.4 completely and replace with the following:

109.4 Work commencing before permit issuance. In addition to the required permit fee, any person who commences work on a building, structure, gas, mechanical or plumbing system before obtaining the necessary permits or who violates Section 110.6 shall be subject to an Investigation Fee in an amount equal to the permit fee.

109.5.1 Temporary Certificate of Occupancy. There shall be a fee for a Temporary Certificate of Occupancy as set forth in the building permit fee schedule.

109.5.2 Reinspection. A Reinspection Fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called for, is not complete or when corrections called for are not made. Reinspection Fees shall be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the Inspector, for failure to provide access on the date for which the inspection is requested, or for deviating from the plans requiring the approval of the building official. A Reinspection may be assessed for failure to post a readily visible address. To obtain a reinspection, the applicant shall pay the Reinspection Fee in accordance with the building permit fee schedule. In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until the required fees have been paid.

109.6 Refunds. Add the following sentence:

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The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected. The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code. The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. Only permit fees shall be eligible for refunds. No refunds will be made of plan review fees.

~~Commercial Permit Fees~~

~~**See Separate Building Permit Fee Schedule**~~

SECTION 110 – INSPECTIONS

Add the following:

110.1.1 Posting of Assigned Site Address. The address of the building site must be posted in a conspicuous place readily visible from the public road.

~~Add the following:~~

~~**110.1.2 Inspection Record Card.** Work requiring a permit shall not be commenced until the permit holder or his agent shall have posted an inspection record card in a conspicuous place on the premises and in a position as to allow the building official to make the required entries conveniently thereon regarding inspection of the work. This card shall be maintained in such position by the permit holder until all inspections have been made and final approval has been granted by the building official.~~

SECTION 111 – CERTIFICATE OF OCCUPANCY

111.3 Temporary Occupancy. Add the following sentence: See building permit fee schedule for Temporary Certificate of Occupancy fee.

Add section 111.3.1 Validity.

111.3.1 Validity. Temporary certificate of occupancy shall be valid for 30 days. Extensions may be granted as allowed by the building official. Fees shall apply as set forth building fee schedule. If the TCO expires prior to certificate of occupancy being issued, temporary certificate of occupancy fees will be due for the period of time up to the certificate of occupancy issue date.

SECTION 116 - UNSAFE STRUCTURES AND EQUIPMENT

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Delete section 116 in its entirety replace with adopted appendix E Unsafe Buildings or Structures

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 406 – MOTOR-VEHICLE-RELATED OCCUPANCIES

~~**406.3.2.1 Separation.**~~

Delete all reference to ½ inch gypsum board and replace with 5/8-inch Type X gypsum within 406.3.2.1 Separation.

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

SECTION 1507 – REQUIREMENTS FOR ROOF COVERINGS

Add the following sentence to 1507.1 Scope:

All roofing material shall be Class A rated except wood roofing which can be Class B fire resistant with an approved Class A assembly underlayment. Class B or Class C roofing materials may be used only if the material has been tested with a fire-resistive assembly and the assembly has received a Class A rating and the material is installed exactly as specified in the Class A rated assembly.

Add the following sentence to 1507.9 Wood Shakes:

Wood roofing without a Class A fire resistant assembly rating shall not be permitted.

SECTION ~~1510~~ 1512 – REROOFING

Add the following sentence to ~~1510~~1512.1 General:

All roofing material shall be a Class A fire resistant assembly with an approved Class A assembly compatible underlayment as stated by product manufacturer.

CHAPTER 16 STRUCTURAL DESIGN

SECTION 1608 – SNOW LOADS

Delete 1608.1 and 1608.2 and replace with:

1608.1 Snow Loads. The roof structure shall be designed for snow loads as determined by the Basic Snow Load Design in Table 1608.1.1 No snow load reductions are allowed.

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Basic Snow Load Design Table 1608.1.1 Roof Snow Loads Required in Pounds per Square Foot (PSF)

Elevation (feet above sea level)	Basic Snow Load (PSF)	Elevation (feet above sea level)	Basic Snow Load (PSF)
6,500 to 6,750	35	9,001 to 9,250	85
6,751 to 7,000	40	9,251 to 9,500	90
7,001 to 7,250	45	9,501 to 9,750	95
7,251 to 7,500	50	9,751 to 10,000	100
7,501 to 7,750	55	10,001 to 10,250	110
7,751 to 8,000	60	10,251 to 10,500	120
8,001 to 8,250	65	10,501 to 10,750	128
8,251 to 8,500	70	10,751 to 11,000	135
8,501 to 8,750	75	11,001 to 11,500	150
8,751 to 9,000	80		

SECTION 1609 - WIND LOADS

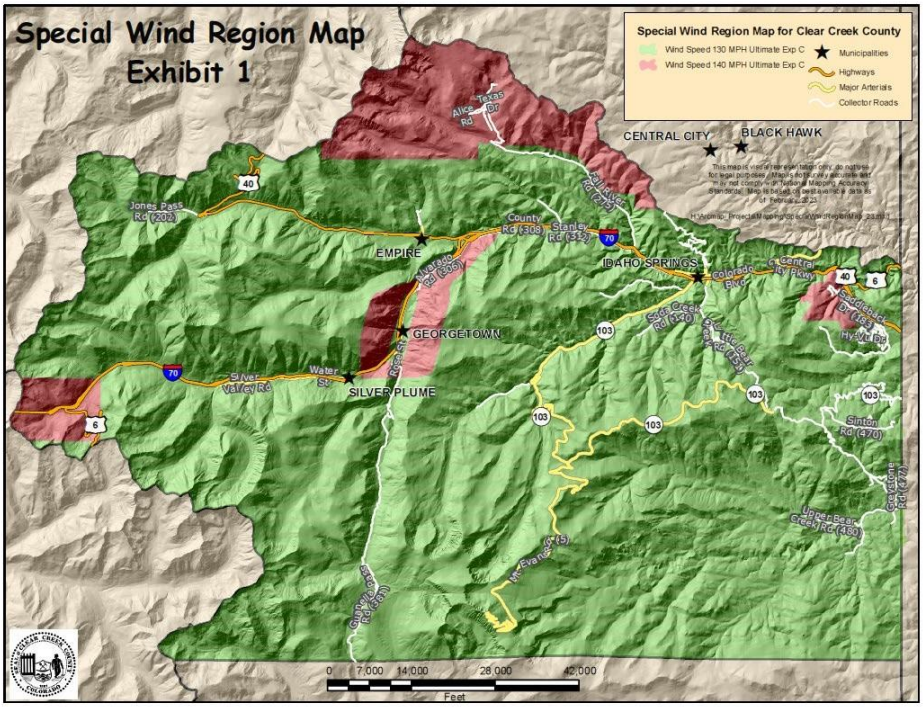
Add the following to:

1609.1.1 Determination of wind loads:

Figures 1609.3(1), 1609.3(2), 1609.3(3), and 1609.3(4) identifies parts of Clear Creek County to be in a Special Wind Region. See Exhibit 1 containing Special Wind Region Map "Clear Map" Building Design Criteria "Windspeed" identifies windspeeds for various risk category buildings. Portions of Clear Creek County are shown to be in a 'Special Wind Region'. Clear Map location: map.co.clear-creek.co.us/HTML5viewer/?Viewer=clearmap

EXHIBIT 1:

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CHAPTER 21 MASONRY

SECTION 2111 – MASONRY FIREPLACES

Add the following:

2111.1.1 New fireplaces. Every new solid-fuel burning fireplace shall have permanently installed either: (1) approved gas logs; (2) other approved gas or alcohol specific appliances; (3) an approved fireplace insert meeting emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or (4) a solid fuel-burning device which is exempt from and not eligible for certification under U.S. Environmental Protection Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance

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is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990. (Effective January 1, 1991-CC90-617.)

Add the following to 2111.14.1:

2111.14.1 Factory-built fireplaces. Every new solid-fuel burning factory-built fireplace shall have permanently installed either: (1) approved gas logs; (2) other approved gas or alcohol specific appliances; (3) an approved fireplace insert meeting emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or (4) a solid fuel-burning device which is exempt from and not eligible for certification under U.S. Environmental Protection Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990. (Effective January 1, 1991-CC90-617.)

Chapter 29 Plumbing Systems

SECTION 2902 – MINIMUM PLUMBING FACILITIES.

Add the following exception to 2902.1:

Exception: Minimum plumbing facilities shall not be required for primitive ~~transient~~ housing where allowed by the Environmental Health Department and the specific zoning of the parcel. The following Appendix Chapters to the ~~2021~~2024 International Building Code are hereby adopted and enforced by Clear Creek County, Colorado.

Delete Appendix Chapter E and replace with **APPENDIX CHAPTER E UNSAFE BUILDINGS OR STRUCTURES** as written in the ~~2021~~2024 International Residential Code Amendments and adopt as part of this code.

Delete Appendix Chapter F and replace with **APPENDIX CHAPTER BEF PASSIVE RADON CONTROLS** as written in the ~~2021~~2024 International Residential Code Amendments and adopt as part of this code.

Delete Appendix Chapter M, and replace with the following and adopt as part of this code:

APPENDIX CHAPTER M MARIJUANA OPERATIONS

SECTION M101 – GENERAL

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M101.1 Scope. This section shall apply to all occupancies engaging in marijuana (i.e. cannabis and extract derivatives) sales locations, growing, processing, extraction, and/or testing. These occupancies shall comply with this chapter and other applicable provisions of this Code.

M101.2 Permits. Permits shall be required for all Marijuana Operations.

M101.3 Existing Operations. Buildings containing existing growing or extraction operations shall comply with this code within 6 months of adoption.

SECTION M102 - EXTRACTION OPERATIONS

M102 Construction Requirements.

M102.1 Location. Extraction of Marijuana and or Hemp processes shall be performed in a room dedicated to the extraction process.

M102.2 Egress. Exit doors from extraction rooms utilizing hazardous materials shall swing in the direction of egress and be self-closing. Panic hardware shall be provided on doors in liquefied petroleum gas (LPG) extraction rooms. Where latching door hardware is provided on extraction rooms utilizing hazardous materials, panic hardware shall be provided.

M102.3 Extraction Rooms. Extraction room shall be fully enclosed. The floor, ceiling, and walls of extraction rooms shall be non-combustible, and smooth. Rooms designed in accordance with Section M102.4 shall be constructed to permit the free passage of exhaust air from all parts of the room.

EXCEPTIONS: 1. Enclosed booths constructed in accordance with IFC Section 2404.3.2.1 through 2404.3.2.3.
2. CO_2 extraction rooms and extraction rooms containing processes not utilizing hazardous materials.

M102.4 Openings and penetrations. Openings and penetrations into extraction rooms utilizing hazardous materials shall only be provided for egress, mechanical, electrical, or plumbing systems serving the extraction room. Penetrations into LPG extraction rooms shall be sealed vapor tight. Non-operable glazing is permitted where glazing does not interfere with required exhaust systems.

M102.5 Extraction room illumination. Luminaires inside the extraction room shall comply with Section M103.3. Luminaires attached to the walls or ceilings of an extraction room or booth, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass

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panels, shall be suitable for use in ordinary hazard locations. Such luminaires shall be serviced from outside the flammable vapor areas.

M102.6 Fire protection. Extraction rooms, booths, or hoods, including ductwork where required for hazardous exhaust systems, shall be protected by an approved automatic fire extinguishing system complying with Chapter 9 where any of the following exist:

Extraction processes utilizing LPG or off gassing LPG from spent plant material or oil.
Vapors are released exceeding 25% of the lower flammable limit from flammable liquid extraction processes or flammable liquid post oil processing.

M103.1 Sources of ignition. Extraction or post oil processing operations which use flammable liquids or liquefied petroleum gas (LPG) shall comply with Sections M103.1 through M103.3.1

M103.2 Open flame and sparks. Smoking, open flames, direct fired heating devises, etc. shall be prohibited where flammable vapors exist.

M103.3 Electrical equipment. Electrical equipment installed in rooms designed in accordance with Section M105.1.2, hoods or booths containing LPG extraction processes shall be in accordance with NFPA 70 (NEC) as a Class I Division I location. Areas adjacent to classified locations shall be in accordance with NFPA 70 (NEC). Electrical equipment installed in areas of flammable liquid extractions or post oil processing shall be in accordance with IFC Chapter 50, as amended, and NFPA 70 (NEC).

M103.3.1 Grounding and Bonding. Precautions shall be taken within LPG extraction rooms to minimize the possibility of ignition by static electrical sparks through static bonding and grounding of extraction equipment, ducts, and piping etc. installed in accordance with NFPA 70 (NEC).

M104 Equipment. Extraction process equipment utilizing hazardous materials shall be listed or approved. No more than 5 gallons of Butane or LPG shall be stored in the building/tenant finish at any time. Storage outside must be in rated cabinets, and placed in an approved location.

M105 Exhaust required. Extraction and post oil processing, utilizing LPG or flammable liquids shall be provided with an exhaust system in accordance with Section 3903.1 or 3903.4.2. The exhaust system shall be in operation at all times when extractions or post oil processing is being performed and until LPG is off gassed from oil and/or plant material removed from LPG extraction equipment. Fans shall be of the type approved for use when flammable or explosive vapors are present in accordance with the *International Mechanical Code*, Section 503. Capture and

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containment air velocity shall be provided across booths, hoods, or exhausted enclosures to capture and convey emissions to the exhaust system and shall be no less than 75 cfm.

M105.1 Exhaust for LPG extraction processes. An engineered hazardous exhaust system shall be provided for LPG or flammable liquids extraction processes including LPG degassing from processed plant material or oil removed from extraction equipment.

M105.1.2 Exhausted enclosure. Where the extraction room is used as the exhausted enclosure, the exhaust system shall be designed to provide capture and containment air velocity across all areas of the enclosure.

M105.1.3 Electrical Interlocks. The exhaust system shall be interlocked with the room power, such that when the exhaust system is not operating, power and lighting will be disabled.

M106 Gas Detection. A continuous gas detection system shall be provided within rooms, booths, or hoods, containing CO_2 or flammable liquids extraction processes. Actuation of the gas detection system shall initiate a local alarm within the room. CO_2 gas detection systems shall alarm at 5000ppm. LPG gas detection system shall alarm at no greater than 20% of the LFL. Portable LPG gas detection shall be utilized by the extraction system operator to verify local hydrocarbon levels, including system leaks.

M106.1 CO_2 Extraction Equipment Process discharge. CO_2 discharges shall be piped to the exterior.

M107 Refrigeration and Cooling Equipment. Refrigerators, freezers, and other cooling equipment to store or process flammable liquids shall meet NFPA 45.

SECTION M201-CARBON DIOXIDE ($C0_2$) GAS ENRICHMENT SYSTEMS USING ON-SITE SUPPLY TANKS AND/OR CYLINDERS IN PLANT GROWING (HUSBANDRY) APPLICATIONS

M201.1 General. Carbon dioxide enrichment systems with more than 100 pounds (45.4 kg) of carbon dioxide or any system using any amount of carbon dioxide (CO_2) below grade used in plant growing (husbandry) applications shall comply with Sections 5310.2 through 5310.8.

M201.2 Permits. Permits shall be required.

M201.3 Equipment. The storage, use, and handling of carbon dioxide shall be in accordance with IFC Chapter 53, and the applicable requirements of NFPA 55, Chapter 13. All equipment utilized in compressed gas systems shall be compatible with the intended gas and use.

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M201.3.1 Containers, cylinders and tanks. Gas storage containers, cylinders and tanks shall be designed, fabricated, tested and labeled with manufactures' specifications and shall be maintained in accordance with the regulations of DOT 49 CPR, Parts 100-185 or the ASME Boiler and Pressure Vessel Code, Section VIII.

M201.3.1.1 Location. Location of gas storage containers, cylinders and tanks, inside or outside the building, shall be at an approved location.

M201.3.1.2 Security. Gas storage containers, cylinders and tanks shall be seemed in an approved manner to prevent overturning. Containers, cylinders and tallies located outside shall be secured and safeguarded against tampering and protected from physical damage if exposed to vehicle traffic.

M201.3.1.3 Design and construction. Bulk tank installations over 2,000 pounds will require an engineered foundation and construction permit in accordance with the County Building Code.

M201.3.2 Piping systems. Piping, tubing, fittings, valves and pressure regulating devices shall be designed and installed in accordance with approved standards and manufacturers' recommendations.

M201.3.2.1 Piping, tubing and hoses. Piping, tubing and hose materials shall be compatible with carbon dioxide and rated for the temperatures and pressures encountered in the system. All hoses and tubing used in carbon dioxide service shall be designed for a bursting pressure of at least four times their design pressure. PVC/ABS and other types of rigid plastic piping are not approved materials. Acceptable piping for carbon dioxide shall be the following:

a. Stainless steel A269 grade, which is either seamless or welded drawn over mandrel
b. Copper K grade, hard drawn seamless
c. Copper ACR grade (1/2 inch outside diameter or less) annealed seamless
d. Plastic/polymer materials rated for use with carbon dioxide
e. Additional approved piping, tubing and hoses found in the Compressed Gas Association (CGA) standards for carbon dioxide

M201.3.2.1.1 Support. Gas piping shall not be attached or supported by any electrical light supports or wiring.

M201.3.2.1.2 Identification. Markings for carbon dioxide ($C0_2$) piping systems shall consist of the content's name (carbon dioxide or $C0_2$) and direction-of-flow arrow. Markings shall be provided at each valve; at wall, floor or ceiling penetrations; at each change of direction; and at not less than every 20 feet or fraction thereof throughout the piping run.

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M201.3.2.2 Fittings, joints and connections. Fittings, joints and connections shall be subject to the approval of the fire and building departments.

M201.3.2.2.1 Fittings and joints between gas supply containers and automatic shutoff valve. Joints and fittings on the supply piping or tubing between the CO_2 supply source and the automatic system shutoff valve shall be threaded, compression or welded.

M201.3.2.2.2 Unused connections. Unused piping or tubing connected to the supply system shall be capped or plugged. A closed valve will not be allowed in lieu of a cap or plug.

M201.3.2.2.3 Concealed connections. All fittings and joints shall be exposed and located adjacent to the supply source or points of use and shall be protected by a detector.

M201.3.2.3 Valves. Piping systems shall be provided with valves in accordance with Sections 5307.3.2.3.1 through 5307.3.2.3.4.

M201.3.2.3.1 Pressure relief valves. Pressure relief valves shall be provided and piped to the outdoors.

M201.3.2.3.2 System shutoff valve. An automatic system shutoff valve shall be provided as near to the supply pressure regulator as possible and shall be designed to fail to a closed condition closing on loss of electrical power to the valve and gas detection. Additional automatic shutoff valves may be provided at each point of use. Automatic shutoff valves shall be designed and located so that all phases (i.e., gas, liquid and solid) of carbon dioxide (CO_2) will not interfere with the operation of the device.

M201.3.2.3.3 Appliance shutoff valves. Each appliance shall be provided with a shutoff valve within 3 feet of the appliance. All shutoff valves shall be capable of being locked or tagged in the closed position for servicing.

M201.3.2.3.4 Accessibility and identification. Valves and controls shall be readily accessible at all times. Normal and emergency system shut-off valves shall be clearly identified. All valves shall be designed or marked to indicate clearly whether it is open or closed.

M201.3.3 Venting. Venting of gases shall be directed to an approved location outside the building. Insulated liquid carbon dioxide systems shall have pressure relief devices vented in accordance with NFPA 55.

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M201.4 Protection from damage. Carbon dioxide systems shall be installed so the storage tanks, cylinders, piping and fittings are protected from damage by occupants or equipment during normal facility operations.

M201.5 Required protection. Where carbon dioxide storage tanks, cylinders, piping and equipment are located indoors, rooms or areas containing carbon dioxide storage tanks, cylinders, piping and fittings and grow room/areas where carbon dioxide is released and can collect shall be provided with an emergency alarm system in accordance with Section 5310.5.1.

M201.5.1 Emergency alarm system. An emergency alarm system shall comply with all of the following:

1. Continuous gas detection shall be provided to monitor areas where carbon dioxide ($C0_2$) can accumulate. Detection equipment shall be provided to indicate carbon dioxide ($C0_2$) levels in each grow cultivation area/room and interior carbon dioxide ($C0_2$) storage location.

2. Detectors shall be:
   a. listed or approved devices
   b. permanently mounted
   c. installed at a height of no more than 48 inches above the floor or as approved by the fire code official
   d. directly connected to building electrical supply and fire alarm systems and protected from accidental disconnection or damage
   e. auto calibrating and self "zeroing" devices are not permitted unless they can be zeroed and spanned
   f. located within manufacturers specified detection range for each point of use and storage location

3. Activation of the emergency alarm system shall initiate amber strobes and audible hams provided in the vicinity of each interior storage container, cylinder or tank and at each point of release. Additional amber strobes and audible hams shall be placed at the entrances to below grade locations and confined spaces. The notification devices shall be rated a minimum of 80cd for a visible effect and 75 DBA for an audible effect and shall be mounted in accordance with NFPA 72 requirements. Provide audible visual devices at the following locations:
   - Inside an interior storage room/area and outside the room/area at each entrance.
   - Inside grow cultivation room/areas.

4. Local alarm set points shall be set at:

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a. 5,000 PPM- Latching Alarm

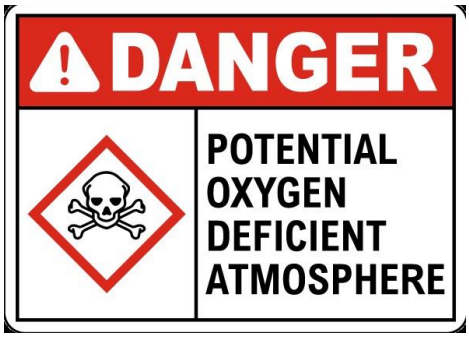
- Visual and audible notification in approved locations at room or area in alarm
- Activation of automatic system shut off valve
- Evacuate the room in alarm and contact a qualified service company to investigate and address the condition.
- Reset of the emergency alarm to be conducted by qualified personnel.

5. Signage shall be required adjacent to each horn/strobe as follows.

Storage area/room: "DO NOT ENTER WHEN LIGHT IS FLASHING - CARBON DIOXIDE LEAK DETECTED"

Grow cultivation room/area dispensing: "FLASHING LIGHT MEANS CARBON DIOXIDE LEAK DETECTED- EVACUATE ROOM"
The sign shall have a minimum l-inch block lettering with a minimum *Y4* -inch stroke. The sign shall be on a contrasting surface of black on yellow and shall be of durable construction.

Signage on entrance doors to grow cultivation and storage rooms: Signage shall be provided at entrance doors to each grow cultivation room/area and at each entrance to storage rooms/areas:



NFPA 704 placards for simple asphyxiates shall also be provided at the exterior main entrance and at each entrance to storage rooms/areas.

6. A minimum of one portable carbon dioxide ($C0_2$) meter shall be in use during business hours.

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M201.6 Transfilling. Filling and transfilling of gases between storage containers, cylinders and tanks and delivery vehicles shall be performed by qualified personnel using equipment and operating procedures in accordance with CGA P-1. Interior storage containers, cylinders and tanks shall be filled via remote fill ports on the exterior of the building at grade level. Exterior remote fill ports shall be fitted with a vent line to the outside. Delivery personnel shall have access to interior storage areas to inspect valves and piping prior to initiating filling operations.

M201.7 Training. All employees shall receive annual training in hazard identification, physical properties, inspections, and emergency procedures. Training records shall be maintained on site and be available to inspectors upon request.

SECTION M301 - CARBON DIOXIDE ($C0_2$) GAS ENRICHMENT SYSTEMS USING A NATURAL GAS BURNER IN PLANT GROWING (HUSBANDRY) APPLICATIONS

M301.1 General. Natural gas burners that are utilized to generate carbon dioxide ($C0_2$) in plant growing (husbandry) applications shall comply with Sections M301.2 through M301.6. A mechanical exhaust system shall be provided as required by the *International Mechanical Code.*

M301.2 Permits. Permits shall be acquired.

M301.3 Equipment. Natural gas burners shall be listed, labeled and installed in accordance with the manufacturer's installation instructions. Piping systems, combustion and ventilation air and venting for natural gas appliances shall be designed and installed in accordance with approved standards, the International Fuel Gas Code and manufacturer's recommendations.

M301.4 Required protection. Where natural gas burners are located indoors for carbon dioxide ($C0_2$) enrichment, grow room/areas shall be provided with an emergency alarm system in accordance with Section 5311.4.1 and carbon monoxide detection in accordance with Section 5311.4.2.

M301.4.1 Emergency alarm system. An emergency alarm system shall comply with all of the following:

1. Continuous gas detection shall be provided to monitor areas where carbon dioxide ($C0_2$) can accumulate. Detection equipment shall be provided to indicate carbon dioxide ($C0_2$) levels in each grow cultivation area/room.

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2. Detectors shall be:

   a. listed or approved devices
   b. permanently mounted
   c. installed at a height of no more than 48 inches above the floor or as approved by the fire code official
   d. directly connected to building electrical supply and fire alarm systems and protected from accidental disconnection or damage
   e. auto calibrating and self "zeroing" devices are not permitted unless they can be zeroed and spanned
   f. located within manufacturer's specified detection range for each point of release

3. Activation of the emergency alarm system shall initiate amber strobes and audible horns provided in each room/area where carbon dioxide (CO_2) can accumulate. Additional amber strobes and audible horns shall be placed at the entrances to below grade locations. The notification devices shall be rated a minimum of 80cd for a visible effect and 75 DBA for an audible effect and shall be mounted in accordance with NFPA 72 requirements. Provide notification devices at the following locations:
   - Inside grow cultivation room/areas.

4. Local alarm set points shall be set at: 5,000 PPM- Latching Alarm
   - Visual and audible notification in approved locations at room or area in alarm
   - Activation of the automatic natural gas control valves to each burner to a closed position stopping the generation of carbon dioxide (C02) • Evacuate the room in alarm and contact a qualified service company.
   - Reset of emergency alarm to be conducted by qualified personnel.

5. Signage will be required adjacent to each horn/strobe as follows:

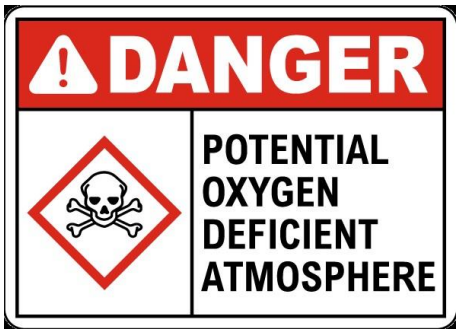
Entrance to below grade location: "DO NOT ENTER WHEN LIGHT IS FLASHING- CARBON DIOXIDE LEAK DETECTED"

Grow cultivation room/area dispensing: "FLASIDNG LIGHT MEANS CARBON DIOXIDE LEAK DETECTED- EVACUATE ROOM"

The sign shall have a minimum l-inch block lettering with a minimum 1.4 -inch stroke. The sign shall be on a contrasting surface of black on yellow and shall be of durable construction.

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Signage at entrance doors: Signage shall be provided at entrance doors to each grow cultivation room/area:



NFPA 704 placards for simple asphyxiants shall also be provided at the exterior main entrance.

6. All carbon dioxide (CO_2) burner systems shall shut down in the event of a loss of electrical power to the carbon dioxide (CO_2) detectors.

7. A minimum of one (1) portable carbon dioxide (CO_2) meter shall be in use during business hours.

M301.4.2 Carbon monoxide (CO) detection.

1. Carbon monoxide (CO) gas detection shall be provided to monitor products of combustion continuously.

2. Detectors shall be:
   a. listed or approved devices
   b. permanently mounted
   c. Installed per manufacturer's recommendations and directions
   d. directly connected to building electrical supply and fire alarm systems and protected from accidental disconnection or damage

3. CO detection shall be at set at 35 PPM and upon activation shall initiate the following:

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- Close the automatic valve to each burner
- Activate the mechanical exhaust system

4. All carbon dioxide (CO_2) venting burner systems shall shut down in the event of a loss of electrical power to the carbon monoxide (CO) detectors.

5. A minimum of one (1) portable carbon monoxide (CO) meter shall be in use during business hours.

M301.5 Acceptance testing. Appliances and equipment shall not be placed in operation until after the detectors, notification devices, automatic gas control valves and mechanical exhaust system have been tested by a qualified service company.

.

M301.6 Training. All employees shall receive annual training in hazard identification, physical properties, inspections, and emergency procedures. Training records shall be maintained on site and be available to inspectors upon request.

M400 Enforcement Enacted. All of the Marijuana related regulations will be made retroactive on existing facilities and will have 6 months from the date of adoption of these amendments to comply with all of the above stated Marijuana regulations.

~~Adopt **APPENDIX CHAPTER W** as follows:~~

~~**APPENDIX W WILDFIRE HAZARD MITIGATION**~~

Commented [DD29]: Wildfire urban interface code is applicable no longer needed.

~~Adopt **APPENDIX CHAPTER W** as written in the 2021 International Residential Code Amendments~~

Adopt **APPENDIX CHAPTER X** as follows:

APPENDIX X EXCAVATION AND GRADING

Adopt **APPENDIX CHAPTER X** as written in the ~~2021~~2024 International Residential Code Amendments

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~~2021~~2024 INTERNATIONAL PLUMBING CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Plumbing Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION ~~106~~ 105 PERMITS

Delete section ~~106~~ 105 in its entirety and replace with IBC Section 105 Permits

CHAPTER 3 GENERAL REGULATIONS

SECTION 305 – PROTECTION OF PIPES AND PLUMBING SYSTEM COMPONENTS

Delete 305.4 in its entirety and replace with the following:

305.4 Freezing. In localities having a winter design temperature of 32 Degrees Fahrenheit or lower as shown in Table R301.2 (1) of the ~~2021~~2024 IRC for severe climate zone, a water, soil or waste pipe shall not be installed outside of a building, exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation, heat or burial. Outside water and soil or waste pipe shall be installed not less than 6 inches below the frost line. The ~~Department of Building Safety~~Building Department is not responsible for the inspection of the protection of the water, soiled or waste outside of the perimeter of the building.

Delete 305.4.1 in its entirety and replace with the following:

Building sewers that connect to a private sewage disposal system shall be installed in accordance with regulations promulgated by the State of Colorado and the Environmental Health Department

CHAPTER 9 VENTS

SECTION 903 - VENT TERMINALS

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Delete Section 903.1.1 in its entirety and replace with the following:

903.1.1 Roof extension. All open vent pipes which extend through a roof shall be terminated at least 6 inches (152.4 mm) above the roof or 6 inches (152.4 mm) above the anticipated snow accumulation whichever is greater.

~~2021~~2024 INTERNATIONAL MECHANICAL CODE

CHAPTER 1 ADMINISTRATION

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SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

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101.1~~2~~ Title. These provisions shall be known as the Mechanical Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION ~~106~~ 105 – PERMITS

Delete section ~~106~~ 105 in its entirety and replace with IBC Section 105 Permits

CHAPTER 3 GENERAL REGULATIONS

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SECTION 303 – EQUIPMENT AND APPLICANCE LOCATION

Add the following

303.1.1 Carbon Monoxide Alarm Requirements. Installation of Carbon Monoxide alarm shall be installed as written in the ~~2021~~2024 IRC Section R315.3.1.

Add the following Item Number 6 for Section 303.3:

303.3 Prohibited locations. 6. LPG appliances shall not be installed in a pit, basement, or crawl space where unburned fuel may accumulate unless an approved sensing device, with a solenoid shut off on the gas line is installed and a daylighted drain is installed. If the appliance is installed in a crawl space it must have a pad poured for the daylighted drain in addition to the above mitigation. The pad shall be a minimum of 8'x 8'.

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CHAPTER 9 - SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

SECTION 903 – FACTORY-BUILT FIREPLACES

~~**903.1 General.**~~ Add the following sentence to **903.1 General.** :

~~-~~Every new installation of a solid fuel-burning, vented decorative appliance or room heater shall meet the most stringent emission standards for woodstoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission as of the time of installation of the appliance or room heater. (Effective January 1, 1991 – CC90-617.)

Delete 903.3 in its entirety and replace with the following:

903.3 Unvented gas log heaters. Unvented gas log heaters or any unvented room heaters are prohibited.

Add the following:

903.5 Auxiliary Emergency Shutoff Valve. All-natural gas or LPG appliance shall have an auxiliary emergency shutoff valve installed within close proximity of the appliance and not closer than 12" to the appliance for emergency isolation purposes.

~~2021~~2024 INTERNATIONAL FUEL GAS CODE

CHAPTER 1 ADMINISTRATION

~~-~~**SECTION 101 - GENERAL**

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Fuel Gas Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION ~~106~~105 - PERMITS

Delete section ~~106~~ 105 in its entirety and replace with IBC Section 105 Permits

404.12 Minimum burial depth.

Replace 12 inches with 18 inches

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~~2021~~2024 INTERNATIONAL ENERGY CONSERVATION CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Energy Conservation Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

Adopt appendices RE Electric Vehicle Charging, RK Electric Ready Provisions, and RD Electrical Energy Storage

~~2021~~2024 INTERNATIONAL EXISTING BUILDING CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Existing Building Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 104 – DUTIES AND POWERS OF CODE OFFICIAL

Delete 104.2.~~4~~10 Modifications and replace with the following.

104.10 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of this code, the *code official* or a preservation commission designated by the authority having jurisdiction shall have the authority to grant modifications for individual cases on application of the owner or owner's authorized representative, provided that the *code official* or preservation commission shall first find that special individual reason makes the strict letter of this code impractical, the modification is in compliance with the intent and purpose of this code and such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Building Department.

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Commented [DD31]: Adopting the Existing building code which provides guidance and requirements for existing buildings, in many cases new construction requirements in existing buildings cannot be met or are not required. For example, when "technically infeasible"

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Commented [DD32]: This section has been modified to allow a preservation commission to have authority to grant modifications as well as the code official

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SECTION 105 - PERMITS

Delete section 105 in its entirety and replace with IBC section 105

Add section 111.3.1 Validity.

111.3.1 Validity. Temporary certificate of occupancy shall be valid for 30 days. Extensions may be granted as allowed by the building official. Fees shall apply as set forth building fee schedule. If the TCO expires prior to certificate of occupancy being issued, temporary certificate of occupancy fees will be due for the period of time up to the certificate of occupancy issue date.

~~2021~~2024 **INTERNATIONAL SWIMMING POOL AND SPA CODE**

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Swimming Pool and Spa Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 105 - PERMITS

Delete section 105 in its entirety and replace with IBC section 105

~~**2024 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE**~~

~~**CHAPTER 1 ADMINISTRATION**~~

~~**SECTION 101 – GENERAL**~~

~~Delete section 101.1 Title and replace with the following:~~

~~**101.1 Title.** These provisions shall be known as the Wildland-Urban Interface Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".~~

~~**SECTION 105 – PERMITS**~~

~~Modify Section 105.2 Permits Required as follows:~~

~~**Replace "code official" with "fire code official" within the third sentence as follows:**~~

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Commented [DD33]: Adopting the swimming pool and spa code, this code provides requirements for pools, spas, and hot tubs.

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Commented [KP34]: Section 503.2.3 potentially conflicts with Section 902 of the IBC.

Commented [KP35]: CWRC
101.2.2 Factory-Built Structures (nonresidential, residential, and tiny homes).
Structure hardening provisions of this code for factory-built structures as defined by
sections 24-32-3302(9), (10), (11), and (35), C.R.S., are in accordance with Rules
adopted by the Division of Housing in 8 CCR 1302-1, Rule 2 Codes and Standards.

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~~Where required by the fire code official, a permit shall be obtained for the following activities, operations, practices or functions within a wildland-urban interface area:~~

~~**CHAPTER 3 WILDLAND-URBAN INTERFACE AREAS**~~

~~**SECTION 302 – WILDLAND-URBAN INTERFACE AREAS**~~

~~Add the following section:~~

~~**302.1.1 Wildland-Urban Interface Areas.** Wildland-Urban interface areas shall be as designated on the most current Colorado Wildfire Resiliency Code Map as adopted by the Colorado Wildfire Resiliency Code Board.~~

2024 INTERNATIONAL FIRE CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – GENERAL

Delete section 101.1 Title and replace with the following:

101.1 Title. These provisions shall be known as the Fire Code of Clear Creek County, Colorado, and shall be cited as such and will be referred to herein as "this code".

SECTION 103 – CODE COMPLIANCE AGENCY

Delete section 103.1 Creation of agency and replace with the following:

103.1 Creation of agency. Fire Authorities and Fire Protection Districts having jurisdiction within the Clear Creek County are hereby recognized, and the official in charge thereof shall be known as the fire code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code within the boundaries of their respective jurisdictions as defined by interagency agreements.

2025 COLORADO WILDFIRE RESILIENCY CODE

CHAPTER 1 ADMINISTRATION

SECTION 101 – SCOPE AND GENERAL REQUIREMENTS

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Delete section 101.1 Title and replace with the following:
101.1 Title. These regulations shall be known as the Colorado Wildfire Resiliency Code as adopted by Clear Creek County, hereinafter referred to as "this code."

SECTION 102 – APPLICABILITY

Delete exemption 8 of section 102.10 and replace with the following:

8. Accessory structures and buildings of an accessory character classified as Utility and Miscellaneous Group U (including Agricultural Structures) not provided with electricity or fuel burning appliance and located more than 50 feet from a structure containing occupiable or habitable space.

Delete exemption 10 of section 102.10

SECTION 103 – CODE COMPLIANCE AGENCY

Delete section 103.1 Creation of agency and replace with the following:
103.1 Creation of agency. The Building Department is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION 106 – FEES

Delete section 106 and replace with section 109 of the IBC

SECTION 108 – CONSTRUCTION DOCUMENTS

Add section 108.1
108.1 Construction Documents. Construction Documents shall be as required by section 106 of the IRC for detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height or section 107 of the IBC for all other buildings or structures.

SECTION 109 – PERMITS

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Add section 109.1

109.1 PERMITS. Permits shall be as required by section 105 of the IRC for detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height or section 105 of the IBC for all other buildings or structures.

SECTION 303 - MAPPING

Add section 303.1.3

303.1.3 Wildland-Urban Interface Areas. Wildland-Urban interface areas shall be as designated on the most recent Colorado Wildfire Resiliency Code Map as adopted by the Colorado Wildfire Resiliency Code Board.

SECTION 401 – GENERAL

Delete exemption 1 of section 401.1 and replace with the following:

1. Accessory structures and buildings of an accessory character classified as Utility and Miscellaneous Group U (including Agricultural Structures) not provided with electricity or fuel burning appliance and located more than 50 feet from a structure containing occupiable or habitable space.

END DELETIONS AND ADDITIONS

~~NOW BE IT RESOLVED, this resolution shall be and is hereby declared to be adopted and in full force and effect, and this Code shall apply to all permits applied for after January 1, 2025.~~

~~ADOPTED THIS 17th DAY OF December, 2024 BY THE CLEAR CREEK BOARD OF COUNTY COMMISSIONERS.~~

~~_____~~

~~Sean C. Wood, Chairman~~

~~_____~~

~~George Marlin, Commissioner~~

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Randall P. Wheelock, Commissioner

Attest

Deputy Clerk and Recorder
For Brenda L. Corbett
Clear Creek County Clerk and Recorded

Exhibit 2

Clear Creek County Roadway Design and Construction Manual

Chapter 4

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Chapter 4 – Driveway Permit Requirements

4.1 Purpose and Intent

Driveway permits must be obtained whenever an individual proposes to construct and connect a driveway to an existing public or private roadway in unincorporated Clear Creek County. The reason for requiring driveway permits is to mitigate hazards to public health, safety and welfare; to ensure the design of the connections meets the specifications in these regulations allowing for emergency vehicle access; and for proper drainage. Driveway permits are also intended to ensure adequate reconstruction and/or repair of any damage caused to the County right-of-way or roadway during construction of the connection. Driveway permits shall be obtained before building permits may be issued. This standard supersedes Resolution 00-24.

4.2 Permits and Performance Guarantees

Individuals proposing to construct a driveway connection to an existing County roadway shall obtain an approved driveway permit as provided in Section 4.3. Before undertaking any excavation, a Performance Guarantee may be required.

4.3 Procedures/Requirements for Issuance of Driveway Permits

Procedures for obtaining Driveway Permits are detailed in Section X102.4 of Appendix Chapter X of the Clear Creek County International Code Series.

1. Fee scheduling will be set for various permits, inspections, and on-site approvals. Permit fees will be periodically reviewed by the County for adequacy, and when appropriate the fee schedule will be revised.
2. The property owner/owners are responsible for obtaining all necessary easements and/or CDOT Access permits prior to the application of the Driveway Permit. A copy of the easement and/or CDOT Access permit must be attached to the permit application.
3. The permit holder assumes the responsibility to have buried gas lines, telephone cable and other utilities located by contacting the Utility Notification Center of Colorado.
4. Applicant represents all parties in interest, and affirms that the driveway approach is to be constructed for the purpose of securing access to the described property.
5. Permit holder or authorized agent shall furnish all labor and materials, perform all work, and pay all costs in connection with the construction requested.
6. The permit holder shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this code, and the permit holder shall engage consultants, if required, to provide professional inspections on a timely basis. In the event of changed conditions, the permit holder shall be responsible for providing revised plans for approval.
7. Permit holder shall protect the traveling public during the installation of the driveway and building site excavation with approved traffic control, as outlined by Part VI of the Manual of Uniform Traffic Control Devices. Right-of-way permits shall be obtained

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whenever a developer, contractor, owner, utility company or other individual proposes to install utility lines, culverts or any other work within the County right of way.

8. The County shall be held harmless against any action for personal injury or property damage sustained by reason of the exercise and issuance of the permit.
9. Failure to comply with any portion of these driveway design standards and permit procedures shall be sufficient grounds for denial, suspension, or revocation of any necessary permit. Financial penalties may also be imposed.

4.3.1 Submittal Requirements for Driveway Permits:

Submittal requirements for Driveway Permits are detailed in Section X102.4.1 of Appendix Chapter X of the Clear Creek County International Code Series.

4.3.2 Action on Driveway Permits:

Applications for driveway permits shall be submitted to the Site Development Department for review and action. Approval shall be granted only if the proposed driveway or roadway connection meets the specifications in these regulations and the required fee has been paid. Approval of a driveway permit may be accompanied by any condition deemed reasonable by the Site Development Department to ensure protection of health, safety and welfare and compliance with these regulations. Applications for driveway permits must be submitted at least 15 calendar days prior to planned commencement of construction, and construction cannot commence without permit approval.

4.3.3 Construction Specification for Driveway Work:

All work undertaken to connect driveways to existing County roadways shall conform to the standards contained in this Manual as well as Appendix Chapter X of the Clear Creek County International Code Series. In the event of a discrepancy between the regulations, the more stringent requirements shall apply.

4.3.4 Construction Schedule for Driveway Work:

As part of its approval of any driveway permit, the Site Development Department shall also approve a construction schedule. The approved schedule shall not be changed after the permit is issued without the written consent of the Site Development Department and approved by the Road and Bridge Department.

4.4 Supervision of Driveway Work

All driveway work shall be completed under the supervision of the permit holder. The permit holder shall at all times conduct work within County right-of-way so as to avoid obstruction and hazard to the traveling public. Materials necessary for construction of driveway access points to the County roadway shall not be stored on the County right-of-way at any time. The roadway and roadside area where driveway access work has been performed shall be thoroughly cleared of all debris and extraneous material and shall be restored to a condition equal to or better than the original when construction is concluded.

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4.5 Inspection and Testing of Driveway Work

Adequate inspections ensure compliance with County requirements. In-progress inspections of all elements of work will eliminate the need of extensive post testing. At least one inspection at the conclusion of construction is required. In making this inspection, the Site Development Department shall check for compliance with these regulations, specific permit conditions and approved plans, and also for adequate cleanup of roadway surfaces and the right-of-way. Certificates of Occupancy shall not be issued by the Building Department until driveway work is determined to be satisfactory by the Site Development Department.

Any work or material determined not to conform to these regulations as well as any pavement failures or broken asphalt, damaged signs or fencing, and remaining debris either in the roadway or adjacent property, or improper drainage reported to and observed by the Site Development Department shall be brought to the attention of the permit holder both verbally and in writing. Any work in which untested or unaccepted materials are used shall be ordered removed and replaced at the permit applicant's expense. Any required corrective work shall be made at the permit applicant's expense and shall be done to the satisfaction of the Site Development Department. If immediate corrections are not made, further project construction shall be stopped.

In determining whether or not the driveway work done by the permit holder is acceptable, the Site Development Department may consult with the Road and Bridge Department. If a determination is made that testing by a third party is required, the number and location of the tests shall be determined by the Site Development Department and the cost of such testing shall be paid by the permit holder. If the Site Development Department determines testing by an independent lab is necessary, the cost of such testing shall be paid by the permit applicant.

4.6 Responsibility for Rework on Driveway Connections

The permit holder shall be fully responsible for the maintenance and correction of any faulty construction, including unstable road cuts and potholes developed during the construction period and for a period specified in Chapter 5, Section 5.10. All deficiencies shall be resolved to the satisfaction of the Road and Bridge Department. Failure to do so could be cause for denial of future permits.

4.7 Driveway and Parking Areas

4.7.1 Requirement for Driveway Permit:

Whenever a property owner, developer, contractor or other individual proposes to connect a driveway or parking area to the public roadway, they must obtain approval for a Driveway Permit from the Site Development Department prior to commencing construction.

4.7.2 Requirement for Grading Permit:

When road grading of an existing road on private property is proposed the individual responsible for the construction must obtain approval for a grading permit from the Site Development Department prior to commencing construction.

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4.7.3 Standards for Driveway Design:

A driveway is defined as an accessory for vehicles providing a connection from a public or private roadway to either individual single-family residences or to a parking area serving multi-family residences; commercial businesses; recreational, institutional, or industrial land uses. For purposes of this regulation only, single family residences shall be defined as individual detached houses or duplexes (two single family residences) either of which are on individual platted lots or on footprint lots with surrounding property held in common ownership. If an accessway serves more than five (5) individual single-family residences, it shall be classified as a roadway rather than a driveway and must meet the County's standards and requirements for road construction. A driveway may provide access to a common parking area for multi-family residential development if the development meets all Clear Creek County regulations for multi-family development. An accessway serving a working ranch or farm and any associated residence regardless of length shall be considered a driveway, and shall meet only such standards as are necessary for public health and safety and as outlined in this section.

A. Location of Driveways Relative to Intersections:

Driveways shall be placed so the following minimum distances are maintained to any street intersection.

Where the driveway connects to a local access or low volume road, a minimum distance of 50 feet from curve return to edge of right-of-way at the intersection shall be maintained. If the required driveway separation distance cannot be met for a T-intersection of two roads, the driveway shall be aligned as close to opposing road as possible.

Where a driveway connects to a collector or larger road, a minimum distance consisting of the left turn stacking distance plus 20 feet as measured from outside of flares, shall be maintained (see Figure 16). The left turn stacking distance shall be determined by the Road and Bridge Department based on an acceptable traffic study. If a traffic study is not available, or date provided is incomplete, the Road and Bridge Department shall estimate the length of the left turn stacking distance.

B. Spacing of Driveways:

Driveway openings shall be separated by at least 30 feet, as measured from outside of flares, or else shall be combined. More spacing may be required for traffic safety and proper traffic operation.

C. Shared Driveways:

Developers or property owners proposing the use of shared driveways shall record an easement defining the location of the driveway in a form acceptable to the County.

D. Horizontal Alignment and Horizontal Curves:

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1. The dimensions of driveway widths, openings, centerline curve radii and turnout spacing shall be as shown in Table 12. Turn Out dimensions are given in Figure 23.
2. All driveways exiting onto collector roads, roadways with average daily counts greater than 700 vehicles per day, or driveways in excess of 100 feet shall be designed with a vehicle turnaround within 50 feet of the dwelling unit to avoid vehicles having to back onto the roadway when exiting (See Figure 24). Driveways serving multi family, industrial, or commercial developments shall provide a turnaround as specified in Figure 7 if the driveways dead ends.
3. Driveways serving single-family residences must be either graveled or paved. Where roads are paved, driveways serving duplexes must be paved. Where a driveway is to be graveled the surface shall be constructed of four inches of road base compacted to a minimum of 95% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180. Where driveway serving a single-family residence or duplex is to be paved, the surface shall be constructed of four inches of compacted road base and two inches of pavement that can be placed in one lift.
4. Driveways serving multifamily residences, commercial or non-residential uses must be designed in accordance with Section 2.4.3.C., with TI equaling 6.0. Single-family and duplex residences may only have one access point onto the County road system unless a minimum separation of 250 feet can be provided. Otherwise, looped driveways are not allowed. Where a lot has two different roads to provide driveway access, access shall always be onto the road with the lowest functional classification.

E. Driveway Cross Section:

1. Driveways constructed on natural slopes greater than 20% shall be super-elevated toward the cut slope as shown in Figure 13.
2. Driveways constructed on natural lateral slopes less than 20% may be crowned as shown in Figure 14.

F. Vertical Alignment and Vertical Curves:

1. Driveways shall have a maximum grade of 8% for the first 25-feet from the connection to the road.
2. Grades less than 1% are not allowed.
3. The maximum allowable grade on straight sections of driveway is 12%.
4. The maximum allowable grade on sections of driveway with a radius of less than 50 feet is 8%, as measured along the center line.

G. Cut Slopes:

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1. Cut slopes may be constructed as steep as 1½:1, but only where lot line proximity or building site natural grade imposes restrictions (30% slope and greater).
2. Cut slopes steeper than 1½:1 require a stability report prepared by a Geotechnical (Soils) Engineer confirming competent slope material prior to approval from the county.
3. In areas of solid rock, slope shall not be cut steeper than 1:1. Slopes steeper than 1:1 require a stability report prepared by a Geotechnical (Soils) Engineer confirming competent slope material prior to approval from the county. Exposed rock faces shall be free of all loose material.
4. All slopes shall be made sufficiently stable to prevent failures. Steep driveway cut slopes not in solid rock, require retaining wall built to prevent slope failure.
5. Retaining walls require plan submittal and approval by the county. All retaining walls with a vertical height greater than 4 feet shall be of an engineer approved design.

H. Fill Slopes:

1. Fill slopes may be constructed as steep as 1½:1, but only where lot line proximity or building site grade imposes restrictions (30% slope and greater).
2. Fill slopes constructed at a 1½:1 slope shall be constructed so that the toe of the slope is keyed into the natural slope and/or supported by a retaining wall.
3. Retaining walls with heights greater than 4 feet shall be designed and certified by an engineer.
4. Organic materials shall not be placed in fills. Rock material with a maximum dimension greater than 12 inches shall not be buried or placed in fills.
5. Rock disposal areas are to be delineated prior to issuance of driveway and excavation permits
6. Fills shall be compacted to a minimum of 90% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180.

I. Drainage:

1. All driveway accesses from existing private or public roads, which interfere with a natural or constructed drainage course, shall provide a drainage culvert. The culvert shall be a minimum of 18" diameter, but will carry the flow of a 10-year storm event, and be positioned offset to the drainage ditch centerline, away from the traveled portion of the access road.
2. Cross road drainage will be provided at a minimum of every 800 feet or where an identifiable drainage course is defined.

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3. Culverts under driveways at intersections shall be of sufficient length to properly fit the radius of flare required and shall be no more than 30 feet in length unless otherwise approved by the Road & Bridge Department.
4. Culvert inlets and outlets shall be designed to cause minimal erosion, and erodible soils shall be adequately protected by riprap, flares, or energy dissipaters.
5. All springs, seeps or bogs evidenced within the proposed driveway shall be treated with a subsurface drainage treatment approved by the county.
6. All driveway culverts shall have a minimum of 6 inches of cover unless otherwise approved by the Site Development Department.

J. Construction Plans and Specifications:

1. All work shall be performed as specified in the latest edition of these standard specifications and any referenced manuals indicated herein.
2. Geotechnical reports analyzing soil and geotechnical conditions on site and recommending how ground is to be prepared to receive fills, how fill slopes are to be designed and compacted and the design of buttress fills and cut slopes to be allowed with respect to these conditions shall be prepared by a qualified geotechnical engineer or professional geologist.
3. Grading plans and specifications shall be prepared and signed by a Professional Engineer licensed in the State of Colorado having knowledge and experience in civil engineering. It is the responsibility of the civil engineer or other qualified professional to incorporate all recommendations from the geotechnical report into the grading, drainage, erosion, and water quality control plans and specifications.

K. Fire Protection and Emergency Access:

1. Emergency access must be maintained at all times.

L. Embankments and Stabilization:

1. Fill shall be developed generally in horizontal layers of similar materials for their length and width, and compacted to a minimum of 90% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180.

M. Intersections:

1. Intersections shall meet at right angles of each other. With supporting justification, a relaxation of up to 15° can be requested from the county.
2. The portion of driveway though the right-of-way connecting the property with the physical roadway shall be the shortest perpendicular distance possible.
3. Driveways shall be sloped down and away from the road at a minimum of 2% for the length of the Right-of-Way but no less than 10 feet.

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4. Driveways shall maintain a grade equal to or less than the crown slope of the road from the point where the driveway meets the road to where the driveway crosses the ditch line (Figure 15).
5. No horizontal curves shall carry onto the existing County Right-Of-Way in the design of the driveway or private road.
6. Driveways shall be designed and located to provide a minimum sight distance clear of all obstructions, natural or man-made, for at least 200 feet in either direction on local access roads and 400 feet on collector roads.

N. Signs and Delineation:

1. All signage, delineation, and mounting devices on driveway approaches, adjacent to the county roadway but within the Right-Of-Way, shall be in conformance with the Manual of Uniform Traffic Control Devices, the most recent Colorado Supplement, and the County Sign Regulations.
2. All necessary delineation must be installed prior to County approval.
3. Stop signs shall be installed at the junction of a driveway with a roadway for all driveways serving six (6) or more residential units, commercial shopping areas, or when required by the Road and Bridge Supervisor for protection of public safety.

O. Utilities:

1. Overhead utilities shall at least meet minimum vertical clearances specified by the utility company or Colorado Public Utilities Commission requirements above the driveway and in no case shall the vertical distance be less than 16 feet 6 inches.

P. Bridges:

1. See Section 2.61 and 2.62.

Q. Maintenance:

1. The property owner/owners assumes responsibility for the maintenance of the driveway approach. All snow, ice, or sleet removal from the portion of the driveway approach, including that deposited on the driveway in the course of snow removal operations by the County Road and Bridge Department, is to be done by the property owner.
2. Pushing snow from a driveway onto a County roadway is prohibited. Snow storage for driveways shall be provided on the owner's property. Use of the right-of-way for snow storage by private individuals or companies is prohibited (C.R.S. 43-5-303). The property owner/owners assumes responsibility for the replacement, maintenance, and cleaning of the culvert installed in the driveway approach (See Section 3.3.6.D.2).

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3. Road & Bridge may require owners to heat tape their culvert to ensure flow during the winter months to minimize the potential of ice forming on roadways (see Chapter 6 Section 6.8.2).

R. Deviations from the Standards:

1. All new driveway construction commencing after adoption of these standards shall adhere to these driveway standards unless a deviation from the standards is granted in accordance with Appendix Chapter X of the Clear Creek County International Code Series.
2. Request for deviation from the driveway standards contained herein must be submitted to the Site Development Department in writing with appropriate justification for consideration for approval.
3. When driveways are granted a deviation to a lesser standard, building construction must meet the criteria set forth by the Wildfire Hazard Mitigation Plan.

4.7.4 Standards for Parking Areas:

A. Parking Index:

The Parking Index standards are specified in the Clear Creek County Zoning Regulations Section 10, Part 1006.1.5.

B. Parking Area Grades:

Parking areas shall have a maximum grade of 4%, and a minimum grade of 1% to facilitate drainage.

C. Surfacing of Parking Areas:

Paving is not required for parking areas and driveways serving single-family units, or for duplexes and Recreational Use Facilities with less than 20 vehicle parking spaces where the road providing access is not paved. Where roads are paved, parking areas for duplexes and recreational areas must be paved.

Unless specifically exempted above, parking areas and drives must be paved with a minimum of six inches of road base compacted to a minimum of 95% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180 and three inches of pavement; or shall be designed in accordance with Section 2.4.3.C, with TI equaling 6.0.

D. Provision for Drainage in Parking Areas:

Parking area design shall made adequate provision for drainage and prevention of erosion. Drainage from parking areas shall flow to roadside ditches or other approved drainageways. Drainage from parking areas shall not flow onto roadways. Collection points for runoff across parking areas shall be provided to minimize sheet flow.

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E. Placement of Parking Areas on Fill:

If a parking area is to be placed on fill, the fill used shall be suitable material as specified by a registered geotechnical engineer. The fill shall be compacted to a minimum of 95% of the maximum dry density at +/- two percent (2%) of optimum moisture content as determined by AASHTO Method T-180with slopes at no more than 1½:1 (H:V) and protected by rip-rap to prevent erosion from snow storage.

F. Use of Parking Area in Lieu of Meeting Driveway Grades:

In instances where construction of a single family or duplex unit is proposed, and it is not possible to build a driveway to County standards for driveway grades because of the steepness of the lot, a parking area which does meet County standards may be built adjacent to the road which provides access to the lot in lieu of meeting driveway grades. The parking area must be outside the road right-of-way and within 150 feet of the residential structure. The parking area shall be sized so, whenever possible, vehicles can be maneuvered within the parking area so they will not be backed onto the road when exiting. The minimum size for parking areas shall be 400 square feet for each unit served. Parking areas shall not be designed so vehicles are parked end-to-end or parallel to the road, but must allow for cards to be parked side-by-side.

G. Snow-Stack Storage:

Snow storage for parking areas shall be provided on the associated private property. Use of the right-of-way for snow storage by private individuals or companies is prohibited (C.R.S. 43-5-301).

H. Parking Dimensions:

Parking space dimensions and parking lot layout are per Figure 17.

4.8 Landscaping and Erosion Control

Whenever roadway or bridge construction results in earth disturbance, revegetation and reforestation is required per the Clear Creek County Best Management Practices Manual. The site plan shall be approved by the Site Development Department and shall be completed during the first planting season after construction. Native or similar horticulture material shall be used. All areas disturbed by construction operations and not otherwise covered by structures or pavement must be seeded and otherwise treated to provide an established stand of vegetation. Cut and fill slopes must be treated to prevent erosion. Areas not disturbed by construction shall be left in their present vegetative state, except that thinning of trees may be required. In no case shall landscaping in the right-of-way or on private property impede the normal maintenance operations of the Road & Bridge Department or the normal flow and operations of traffic. Specific requirements are as follows:

Erosion Control and Environmental Mitigation Efforts for Driveway Construction:

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1. The faces of cut and fill slopes shall be prepared and maintained to control against erosion.
2. This control shall consist of effective planting as a permanent control measure.
3. Permanent soil stabilization measures shall be installed within thirty (30) days after final grade is reached. Planting shall occur within the next window of opportunity should construction be completed during winter months.
4. Were cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.
5. Where necessary, check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety.
6. Preserve existing trees, shrubs and grasses where possible to prevent erosion.
7. No work may interfere with the flow of storm water.
8. Excavations shall be constructed so they are stable.
9. Storm water runoff shall be discharged from the site in quantities and at velocities not to exceed historic levels.
10. All erosion control devices shall be maintained so that they function as designed.
11. Dust emissions (wind erosion) shall be controlled.
12. Temporary erosion protection shall be installed prior to excavation.
13. All topsoil shall be salvaged and redistributed.
14. Road crossings across water courses designated as “Waters of the United States” must meet the requirements set forth by the Army Corps of Engineers for permitting before a County permit will be issued.

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Table 4 – Stopping and Passing Sight Distance

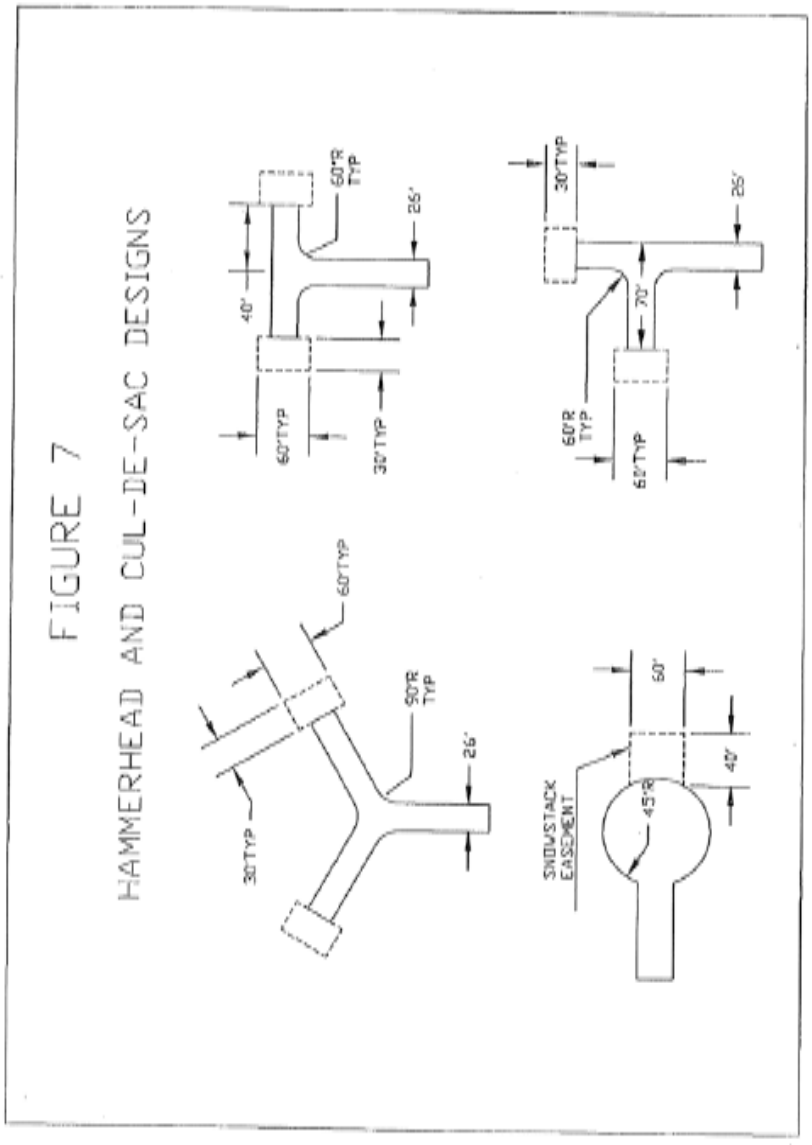
Design Speed	Stopping Sight Distance	Passing Sight Distance
15	100	500
20	150	700
25	200	900
30	250	1100
35	300	1300
40	400	1500
45	500	1650
50	600	1800
55	700	1950

Table 12 – Driveway Widths

Driveway Widths				
Type of Service	Minimum Driveway Driving Surface Width	Opening Width (including flares)		Minimum Centerline Radius of Curvature
		Minimum	Maximum	
Commercial	22 feet	24 feet	*	65 feet
Residential				
Single Family:				
<200' in length	12 feet	18 feet	24 feet	40 feet
>200' in length	14 feet	18 feet	24 feet	40 feet
Serving two to five units:				
<200' in length	14 feet	20 feet	24 feet	40 feet
>200' in length	16 feet	20 feet	24 feet	40 feet
Multi-Family	22 feet	24 feet	30 feet	65 feet
	Turnout Spacing for Driveways			
	Length	Turnouts		
	< 400 feet	None		
	400 – 800 feet	One turnout at midway point of driveway		
	> 800 feet	Every 400 feet		
*To be determined at time of site plan review.				

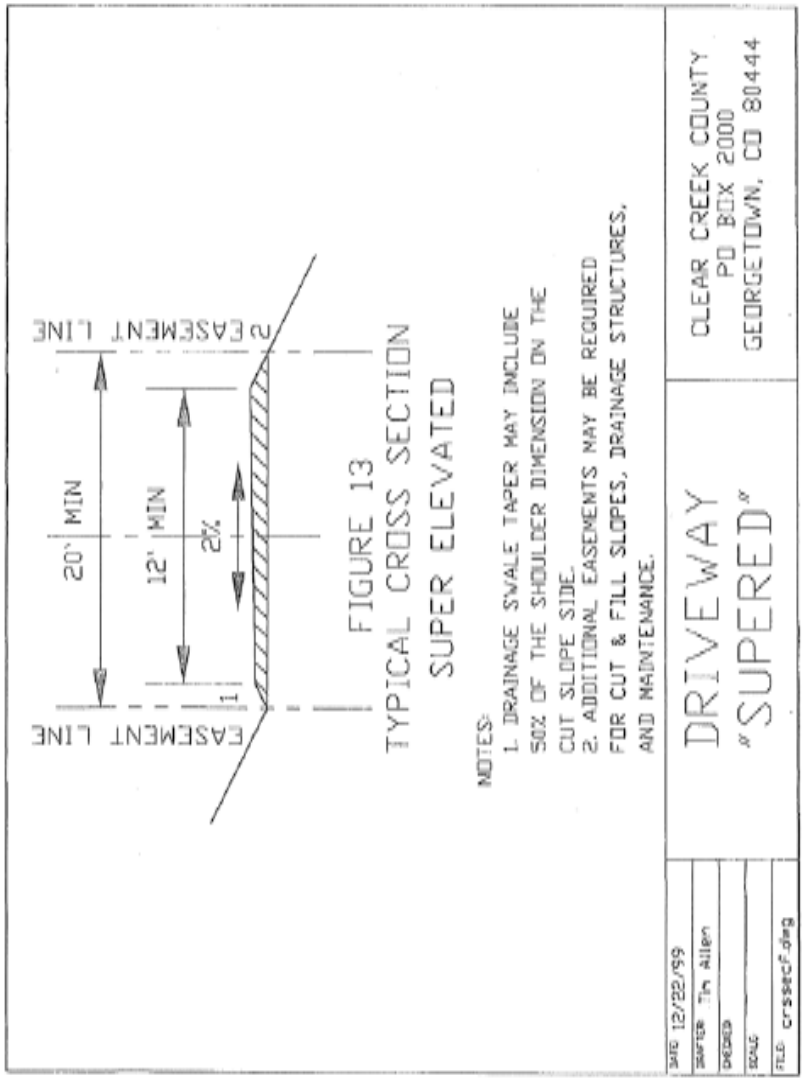
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Figure 7 – Hammerhead and Cul-De-Sac Designs



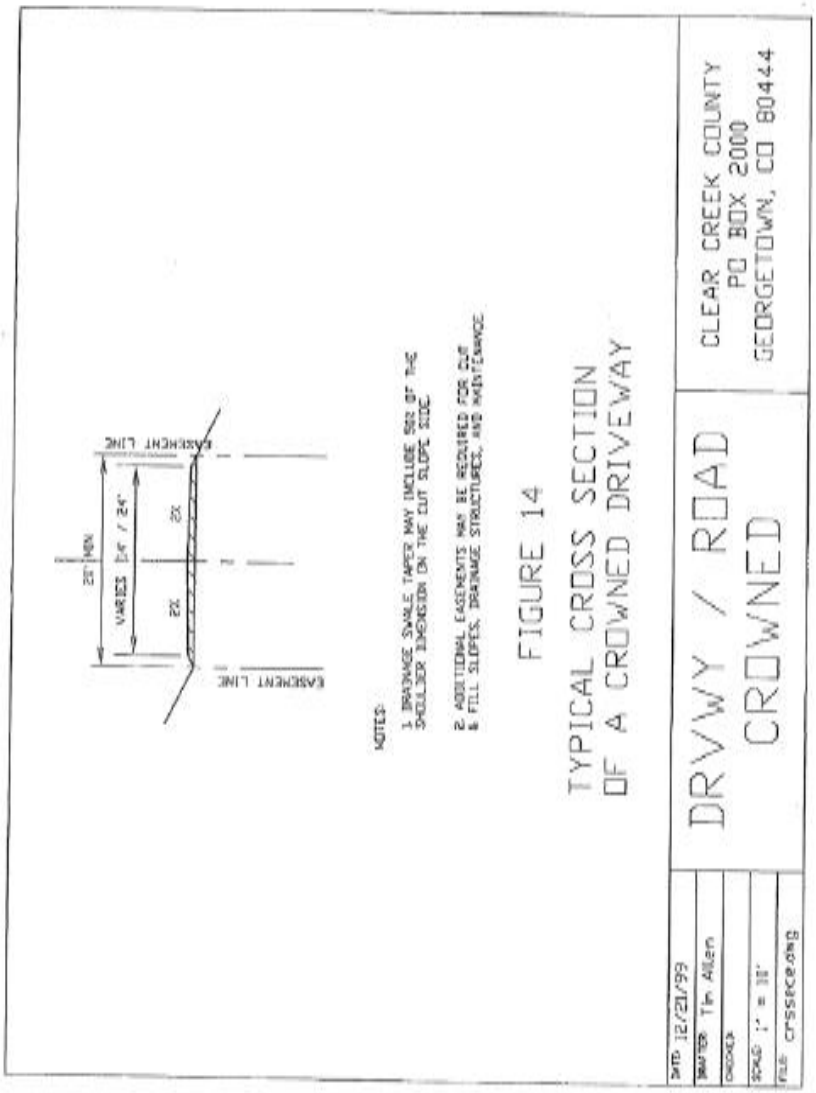
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Figure 13 – Typical Cross Section Super Elevated



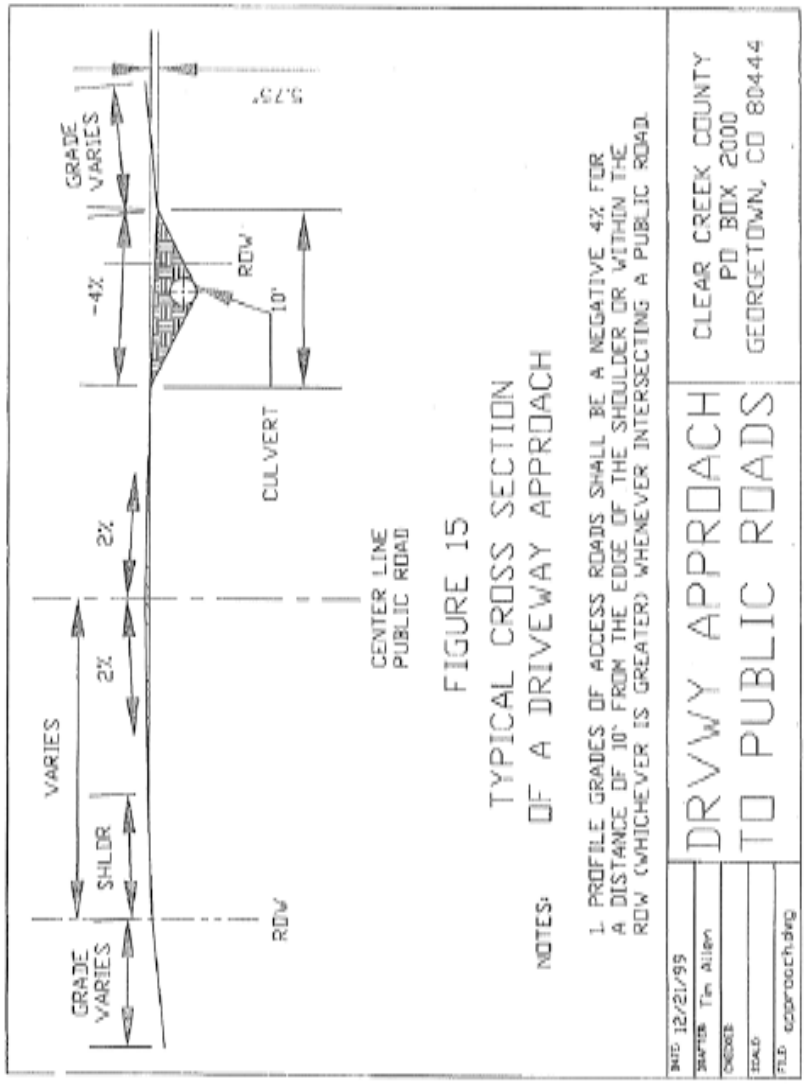
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Figure 14 – Typical Cross Section of a Crowned Driveway



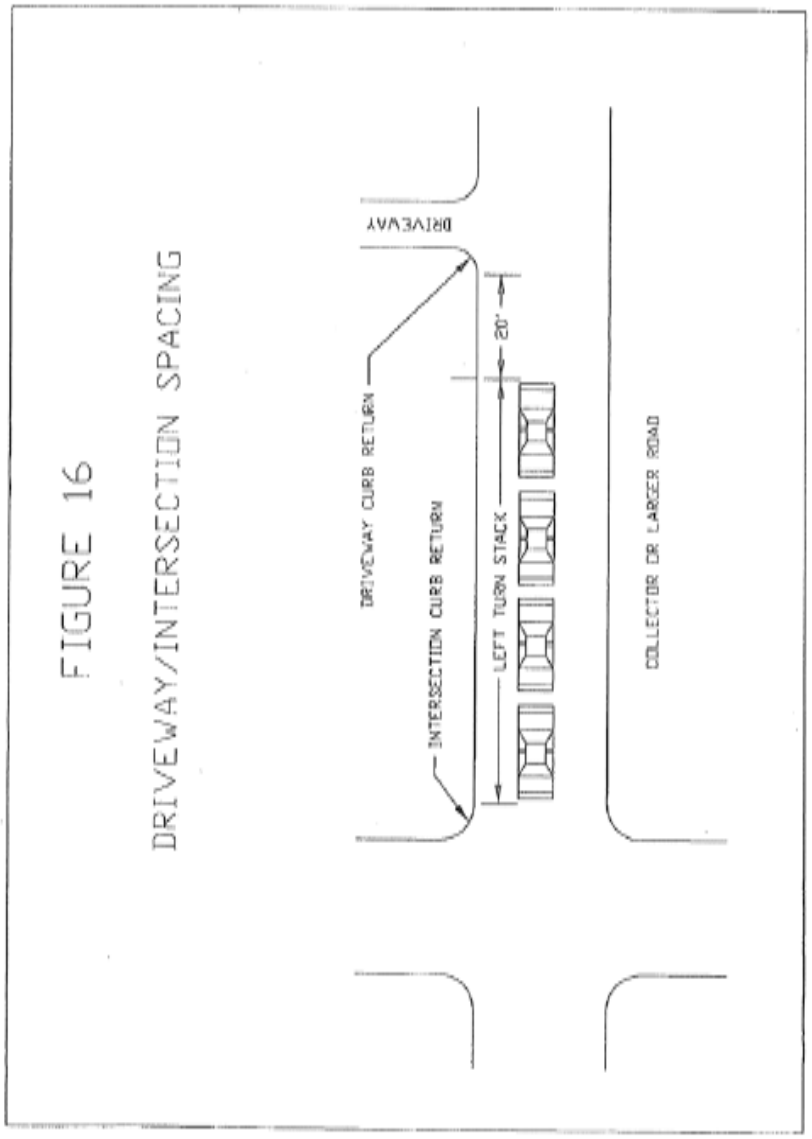
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Figure 15 – Typical Cross Section of a Driveway Approach



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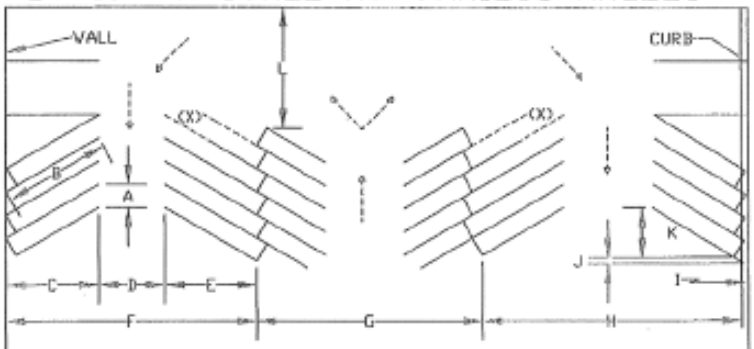
Figure 16 – Driveway/Intersection Spacing



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Figure 17 – Parking Layout Dimensions

FIGURE 17
PARKING LAYOUT DIMENSIONS FOR 9 FT. BY 19 FT. STALL AT VARIOUS ANGLES



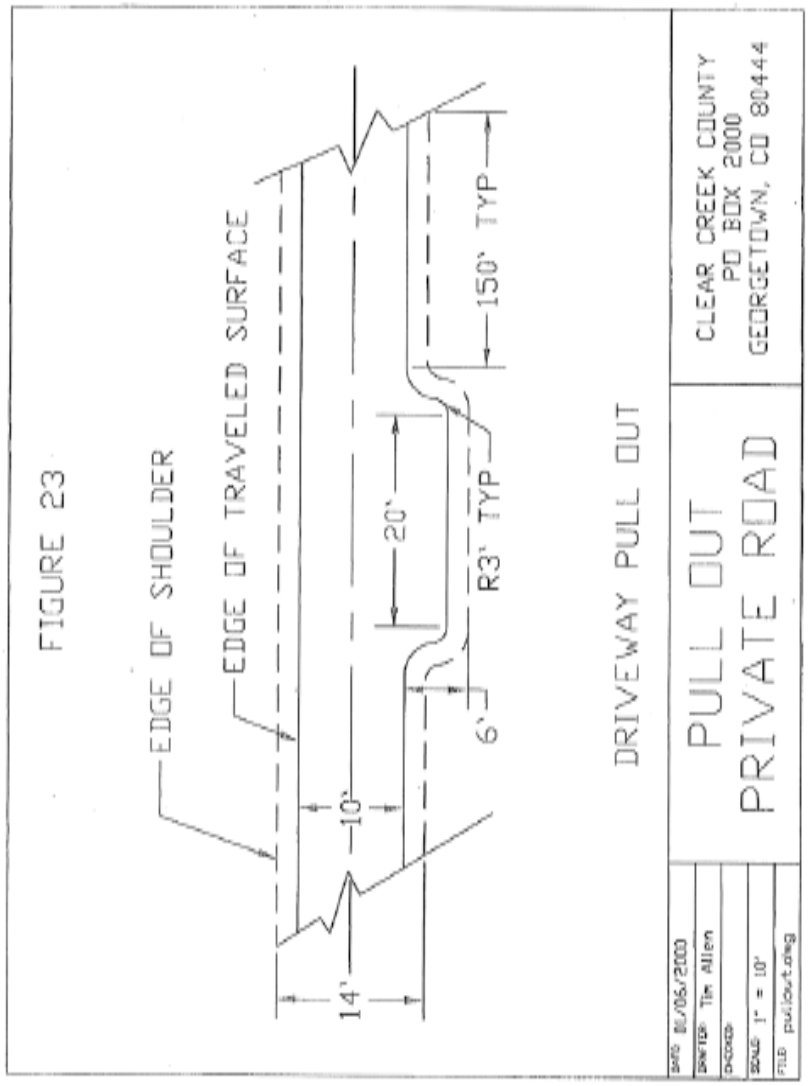
WALL TO INTERLOCK INTERLOCKING MODULE INTERLOCK TO CURB

X = STALL NOT ACCESSABLE IN CERTAIN LAYOUTS

DIMENSION	ON DIAGRAM	ANGLE			
		45	60	75	90
Stall Width, parallel to aisle	A	12.7	10.4	9.3	9.0
Stall length of line	B	28.0	24.2	22.3	19.0
Stall depth to wall	C	19.8	21.0	21.0	19.0
Aisle width between stall lns	D	12.0	16.0	19.0	22.0
Stall depth, interlock	E	16.6	18.7	19.0	19.0
Module, wall to interlock	F	48.4	57.7	59.0	59.0
Module, interlocking	G	45.2	53.4	57.0	59.0
Module,interlock to curbface	H	46.4	55.2	55.5	56.5
Bumper overhang (typical)	I	2.0	2.3	2.5	2.5
Offset	J	6.4	2.6	2.5	2.5
Setback	K	13.1	9.3	4.8	0.0
Cross aisle, one way	L	14.0	14.0	14.0	14.0
Cross aisle, two way	M	22.0	22.0	22.0	22.0

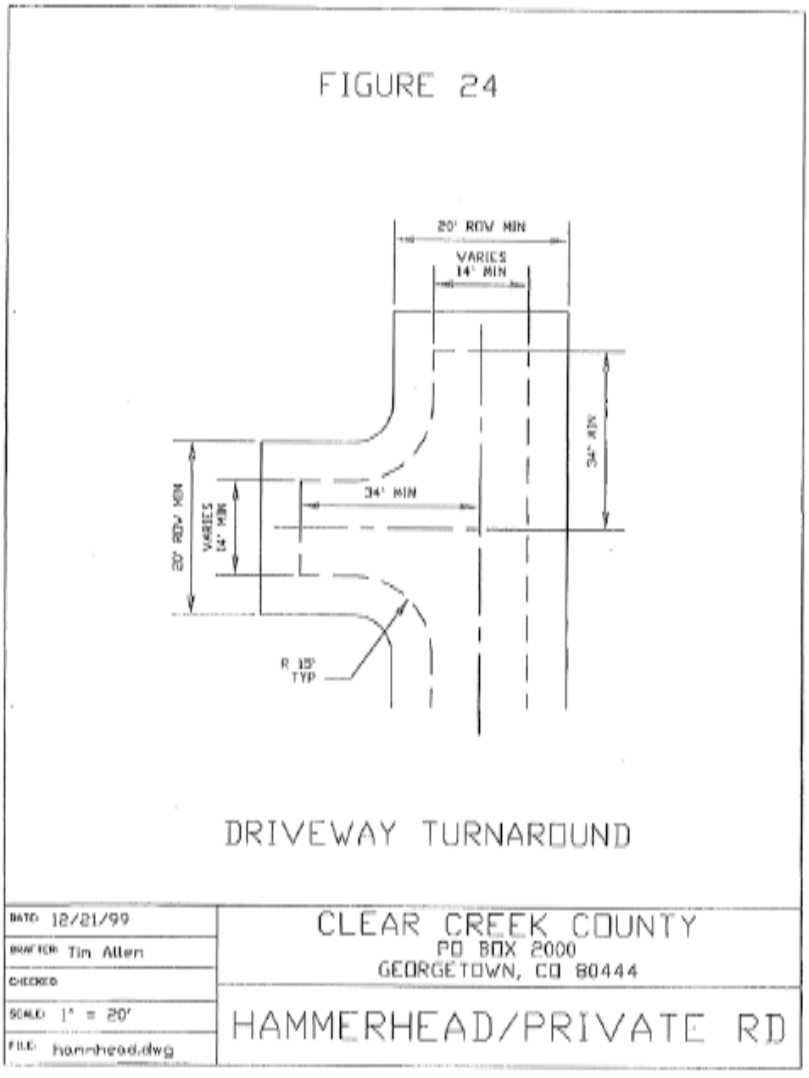
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Figure 23 – Driveway Pull Out



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Figure 24 – Driveway Turnaround



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EXHIBIT 3 – International Residential and Building Code



Clear Creek County Best Management Practices Manual

Amended 11/26/12

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BMP Manual Table of Contents

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BMP: REVEGETATION

1. METHODS: The primary purpose of revegetation is erosion control. Grass provides the best protection for the first few years. Grasses germinate and grow quickly and provide a fast and complete ground cover. Trees and shrubs are effective for long-term erosion control, but grasses are needed for initial soil protection until the slower growing trees and shrubs become well established. Decorative landscaping with trees and shrubs can be done later.

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The harshness of the mountain climate, geologic conditions, and the steepness of the terrain make it difficult for plants to become established. The steeper the slope, the more difficult it is. You will have the greatest chance of success with revegetation if you keep the area and angle of disturbed slopes to a minimum.

Before you can revegetate an area, you must first roughen or loosen the soil surface so that seeds can get a foothold in it. Use a dirt rake or tiller. Broadcast the seed by hand or with a "belly grinder." Rake the soil after seeding to cover the seeds with ¼" - ½" of soil. The Site Development Inspector may require the addition of topsoil to sites having or which generate extremely rocky soils as a good seedbed is crucial to successful revegetation. Slope degree may require hydroseed/hydromulch as per the County's adopted revegetation policy below. Revegetation efforts shall provide for at least 70 percent coverage of the disturbed areas. The Site Development Inspector shall inspect the site periodically for two (2) years from the date revegetation work is completed to ensure compliance. If 70 percent coverage is not obtained, the property owner may be required to provide for additional revegetation.

The time of planting depends on whether or not you irrigate. If you choose to irrigate, you must continue irrigating until the grass is well established.

- If you do not irrigate:

  (a) Plant seeds as late as possible in the fall but before the ground is frozen and before snowfall. October and November are generally good months to seed. Seeds planted too early in the fall may germinate with fall rains and the young seedlings can then be killed by frost.

  Or,

  (b) Plant seeds in April or May as soon as possible after snowmelt.

- If you are legally allowed to irrigate:
  Plant seeds as soon as possible after grading is completed and the area can be closed to vehicle traffic. During the germination period (at least the first 2 weeks), irrigate often enough to keep the seedbed moist. You may have to water more than once per day. Water with fine spray to avoid washing away seeds and soil. Water only long enough to moisten the first 2" of soil. You can discontinue irrigating when the grass is about 6" tall.

2. MATERIALS: The following grass seed mixtures are suggested for the three major habitats encountered in higher elevations of Colorado.

- Roadside Mix – Drought tolerant grasses for roadside stabilization consisting of tall and low growing bunchgrasses for rapid establishment and long term persistence.

SEED	**VARIETY**	**(LB per ¼ Acre)**

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Slender wheat grass	San Luis, Revenue	2¼
Mountain Brome	Broman	2¼
Orchard grass	Paiute, Potomac	1
Hard Fescue	Durar	1
Sheep Fescue	Covar	1
		7½

- Landscape Mix – Low growing grasses comprised of bunchgrasses and sod formers giving a varied texture for transitional areas adjacent to buildings.

SEED	**VARIETY**	**(LB per ¼ Acre)**
Chewing Fescue	Shadow	2¼
Red Fescue	Pennlawn	2¼
Hard Fescue	Durar	1½
Sheep Fescue	Covar	1½
		7½

- Meadow Mix – For wetter sites adjacent to streams and in meadow areas where there is a high water table.

SEED	**VARIETY**	**(LB per ¼ Acre)**
Meadow Foxtail		¾
Smooth Brome	Manchar	1½
Tufted Hairgrass		½
Red Fescur	Pennlawn	¾
Timothy		½
Kentucky Bluegrass	Park	1
		5

3. MAINTENANCE TIPS: Fertilizing: Apply 5 lbs./1000 sq. ft. of 16-20-0 fertilizer with 15% sulfur (ammonium phosphate sulfate) at the time of seeding. Reapply once per year in the spring until the soil is well protected with grass. Do not over fertilize. Excess fertilizer will wash away and can pollute downstream water resources.

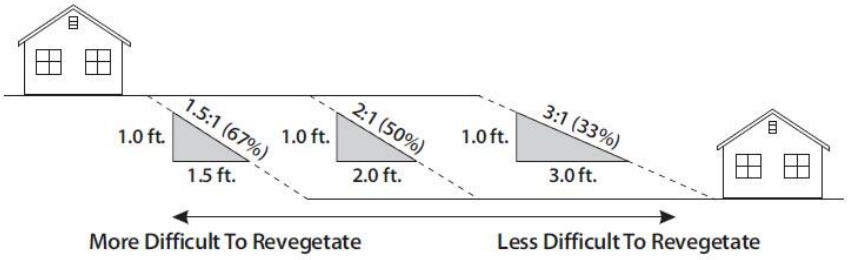
4. TEMPORARY OR PERMANENT USE: Revegetation can be a temporary or permanent BMP.

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Clear Creek County's Re-vegetation requirement is: 1) Slopes constructed at >3:1 (horizontal to vertical) can be hand seeded and mulched. 2) Slopes constructed at 3:1 to 2:1 to must be hydroseeded/hydromulched. 3) Slopes constructed at 2:1 to 1½:1 must be hydroseeded/hydromulched and have slope netting/erosion control blankets installed (or equivalent erosion control measure with the approval of the Site Development Inspector). Slopes steeper than 1½:1 are not permitted or require retaining walls.

Permanent soil stabilization measures shall be installed within thirty days after final grade is reached. If construction is completed during winter months, planting should occur within the next window of opportunity. Silt fence or brush barrier to be installed on downhill side of excavation.

Determining Steepness of Grade



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METHODS:

BMP: MULCHING

1. Mulch is essential for revegetation success. Mulch protects bare soil from erosion until new vegetation grows large enough to do the job. It also holds seed and fertilizer in place, keeps soil moist and shades seedlings, helping them to become established.

Straw is the best mulch material. Apply 1 bale of straw per 1,000 sq. ft. Distribute the straw evenly so that it forms a layer 1" to 2" thick. Soil should still be visible through the straw mat. If you apply too much mulch, it may produce a mat too dense for seedlings to penetrate.

Anchor the straw by punching it into the soil every 1' to 2' with a dull, round-nosed shovel to avoid cutting the straw) or by covering it with netting (jute, plastic mesh, woven paper, or chicken wire). Fasten the netting to the ground with wire staples. Because the soils in many areas are quite hard, you may have to use netting to anchor the straw.

Wood fibers, wood chips, and pine needles are other usable mulch materials. Wood fiber mulch is applied hydraulically in a slurry that also contains the seed and fertilizer. It is suitable for use on steep slopes or large areas and must be applied by a contractor. (The application rate for wood fiber mulch is 3,000 lbs/acre.) Wood chips and pine needles can protect the soil from erosion, but they also inhibit plant growth. They can only be used where a grass cover is not desired. Apply wood chips so that the soil is completely covered. Apply pine needles in a layer 2" to 3" thick. You can save the pine needles from graded areas on your property to use as a mulch later, but you will probably have to supplement them with wood chips to achieve an adequate ground cover.

2. MATERIALS:

- Straw, wood fibers, wood chips, or pine needles.

3. MAINTENANCE TIPS:

- Replace as required.

4. TEMPORARY OR PERMANENT USE: Mulching is a temporary BMP.

1. METHODS:

BMP: SLOPE NETTING/EROSION CONTROL BLANKETS

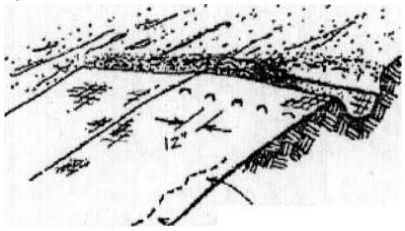
1. METHODS: Netting or erosion control blankets are often used to hold mulch in place on steeper slopes. Netting can be used by itself to protect seeds and soils from washing away during watering or rain storms. The following installation procedures should be used.

A. Starting above the mulched area, bury top end of strip of netting material in a trench at least 4" deep.

B. Fill trench with soil and tamp firmly. Fasten with a row of staples 12" apart.

C. Overlap lower end of uphill strip over next strip at least 12" and secure with staples 12" apart.

D. Continue adding strips of material until entire mulched area is covered. Overlap sides of strip at least 4" and staple as shown.



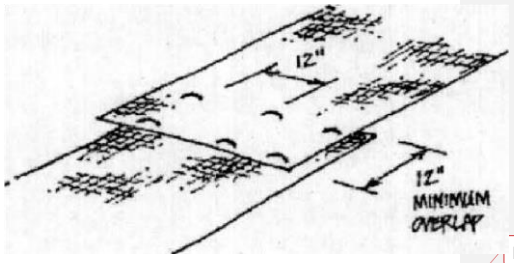
Outermost edge of mulched area

2. MATERIALS:

- Jute, excelsior, fiberglass, or plastic netting. (Do not use plastic sheeting or filter fabric.)
- Wire staples, no.11 gauge or heavier, 6" to 10" long. (Use longer staples on loose soils.)

3. MAINTENANCE TIPS:

- Inspect and repair as needed.



4. TEMPORARY OR PERMANENT USE:

- Slope netting is a temporary BMP. Remove nonbiodegradable netting and staples when vegetation is stabilized.

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BMP: TREE PROTECTION

Trees and other native vegetation must be protected against construction damage. Protect vegetation by following these guidelines:

A. Do not nail boards, filter fabric, or anything else to trees.

B. Grading, paving, or placing fill within a tree's drip line are not allowed except when all of the following are met:

- encroachment is only on one side of tree; encroachment is no closer than 5' from the trunk or no more than ½ the distance between the drip line and the trunk;
- a drainage system that allows air and water to circulate through the root zone is placed under all fills over 1' deep within the drip line; and
- care is taken not to cut tree roots unnecessarily or to compact the soil around them.

C. Remove low tree limbs that are likely to be broken by construction activities. Cut the limb flush to the trunk or main branch. Paint cut or damaged limbs, trunks or roots with a good grade of tree paint.

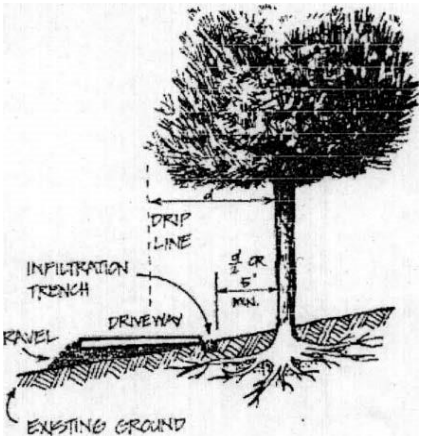
D. When planting new vegetation, water frequently and protect from adverse weather conditions.

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1. **METHODS:**
2. **MATERIALS:**
None required but materials such as plastic construction fence or silt fence could be used to delineate the area of non-disturbance.

3. **MAINTENANCE TIPS:**
Water as required and wrap if necessary.

4. **TEMPORARY OR PERMANENT USE:** Tree protection can be a temporary or permanent BMP.



BMP: SURFACE ROUGHENING

1. **METHODS:** Surface roughening involves roughening previously disturbed soils. Surface roughening is used to reduce the speed of runoff, increase infiltration, reduce erosion, trap sediment and prepare the soil for seeding by capturing moisture for the seed. The soil surface is considered roughened if depressions are created 2 to 4 inches deep and spaced approximately 4 to 6 inches apart. Revegetation is required within 30 days of surface roughening or the next window of opportunity.

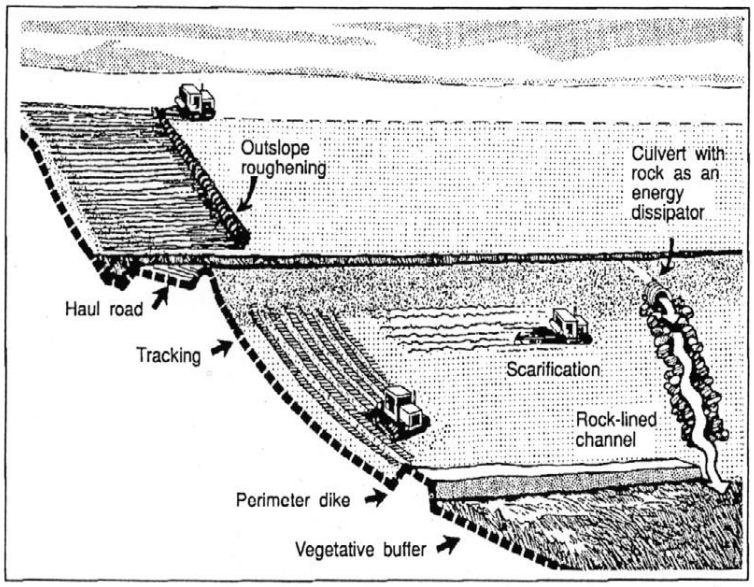
2. **MATERIALS:**
   - Dozer, tracked machine or tiller.
   - Seed, mulch and/or erosion control blankets.

3. **MAINTENANCE TIPS:**
   - Do not drive over areas that have been treated.
   - Revegetation must occur within 30 days or next window of opportunity.

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4. TEMPORARY OR PERMANENT USE:

- Surface roughening is a temporary BMP until revegetation occurs.



BMP: BERMS AND DITCHES

A berm is a ridge of compacted soil. A ditch is a small drainageway. Both of these structures have similar purposes. Berms and ditches should be used:

- Above disturbed slopes
- Around graded areas (to keep clean runoff out and to contain sediment-laden runoff within)
- Along slope benches
- Above leach fields when required.

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1. METHODS:

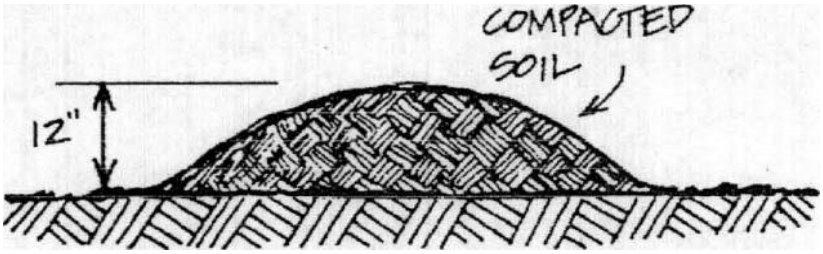
The most common use of berms and ditches is to divert upland runoff away from exposed soil to a protected outlet (such as an infiltration trench, storm drain, or stable channel). When a berm or ditch is used to contain runoff from a disturbed area, you must route the sediment-laden water to a sediment trapping device (see section on sediment basins).

The following method should be used to construct a berm:

A. Deposit a ridge of soil about 18" high with a shovel or backhoe.

B. Compact the soil by rolling or tamping until it has the dimensions shown.

C. Vegetate permanent berms with installation of an erosion control blanket.

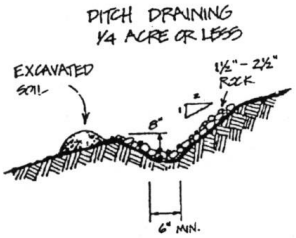


The following method should be used to construct a ditch:

A. If the drainage area to the ditch is ¼ acre or less, dig the channel 8" deep. If the drainage area is ¼ to 2 acres, dig the channel 12" deep. Deposit the excavated soil where it will not wash into a drainage way (such as on the downhill side of the ditch).

B. Compact the channel by tamping or rolling.

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C. Line temporary ditches with rock, filter fabric, plastic sheeting or jute netting. Do not construct a temporary ditch at a slope exceeding 15%.

D. Line permanent ditches with rock, asphalt or concrete. Install a rock lining as shown here. Do not install a rock lining on a ditch steeper than 15% slope.

E. Install an outlet protector or infiltration system at the end of the ditch.

2. MATERIALS:

- Use rock, filter fabric, plastic sheeting or jute netting for temporary ditches.
- Use rock, asphalt or concrete for permanent ditches.

3. MAINTENANCE TIPS:

- Clean out upstream side of berms after snowmelt or storm event.
- Inspect dikes and ditches after each storm.
- Re-compact any loose soil on berms and ditches periodically.
- Fill gaps and low spots (such as tire tracks across a dike).
- If an unlined channel is eroding, line it with a suitable material.
- Repair damaged linings immediately.

4. TEMPORARY OR PERMANENT USE: Berms and ditches can be temporary or permanent BMPs.

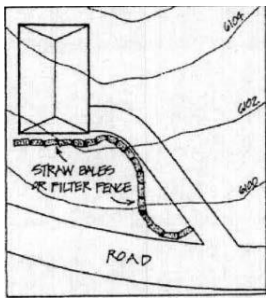
BMP: SEDIMENT BARRIERS

Sediment barriers are temporary structures that slow runoff and trap small amounts of sediment. Sediment barriers can be built with:

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1. METHODS:

- Straw bales
- Silt fence or filter fabric attached to a wire fence or to straw bales
- Erosion Control Log/wattle
- Native Erosion Control Log, or
- Sandbags



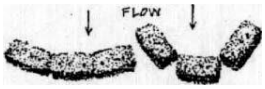
Sediment barriers should be used:

- Below small disturbed areas;
- At the base of exposed slopes;
- Along streets, curbs, and property lines (below disturbed areas).

The following method should be used to install straw bales:

A. Dig a 6-inch deep by 2-foot wide trench. Align trench along contour but curved slightly uphill so runoff cannot escape around the end bales.

B. Place bales in trench with ends tightly abutted.



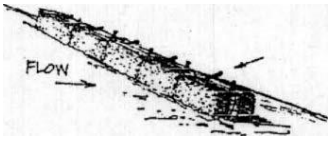
C. Anchor each bale with 2 re-bars or wood stakes hammered 1½ to 2 feet into the ground.

Angle first stake in each bale toward the *IncorrectCorrect* previously laid bale.

D. Wedge loose straw between bales.

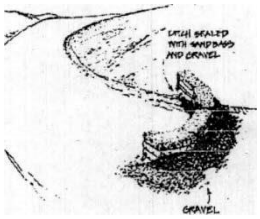
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Backfill and compact the excavated soil against the uphill side of the barrier.





E. When installing bales on pavement, you can pile gravel or rock behind the bales to hold them in place.



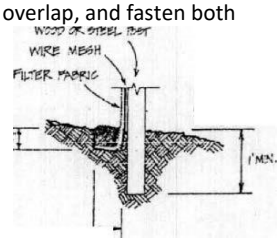
SILT FENCE: Silt fence is required when excavation occurs next to any watercourse and must be installed prior to any earthwork.

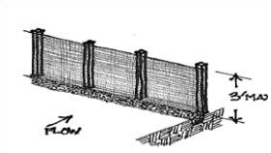
The following method should be used to install silt fence or filter fence:

A. Space posts no more than 10' apart and drive them at least 1' into the ground, align the fence along the slope of the contour, curving it slightly uphill to avoid end runs.



B. The fabric should not extend more than 3' above the ground. Cut filter fabric from a continuous roll to avoid having joints. Where joints are necessary, splice the fabric only at a post, with at least a 6" overlap, and fasten both ends securely to the post.





C. Fasten mesh to uphill side of posts with staples or wire, extend mesh to bottom of trench. (Do not attach mesh or fabric to trees.)

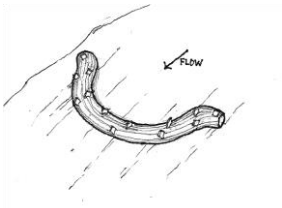
D. Dig a 4" x 4" trench on the uphill side of the fence.

E. Backfill trench and compact the soil.

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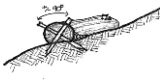
1. METHODS:

Note: Silt fences will not withstand high-volume of water, snow loading and high wind environments and often require higher maintenance.



The following method should be used to install an erosion control log:

A. Erosion control logs should conform to the slope and must maintain contact with the ground the entire length of the log. When installed in series as a wattle, ends should be tightly fastened together with plastic ties.

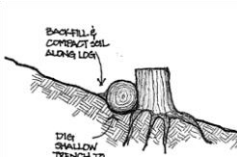


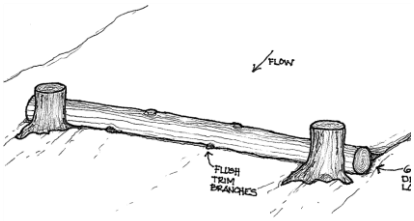
B. Install using 1 ½" x 1 ½" x min. 24" wood stakes. Locate stakes at all ends or joints, otherwise on 24" centers. Alternate orientation throughout the length of the erosion control log. Proper staking is essential for erosion control log function.

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The following method should be used to install a native erosion control log:

A. Cut a native log to length, allowing for some overlap past each of the supporting tree stumps. Flush trim the branches.





B. Dig a shallow trench, slightly wider and longer than the log, on the uphill side of the tree stumps. Set the log into trench and against the supporting tree stumps.

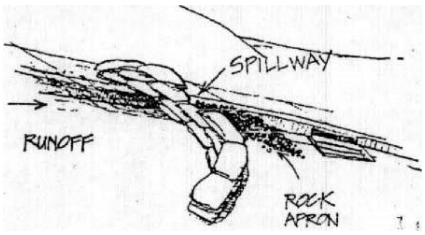
C. Backfill and compact the excavated soil along uphill side of the log barrier.

The following method should be used to install a sandbag sediment barrier:

A. Place a row of sandbags from the top of the curb to at least 3' into the driveway. Curve the barrier so the ends point uphill.

B. Place a second layer of bags overlapping the first. Press the bags tightly together to eliminate any spaces between the bags.

C. Place a third layer of bags on top leaving a 6" wide spill way near the center of the row.



D. If the driveway is unpaved, construct a rock apron below the downhill side of the spillway (see section on outlet protectors).

E. Add 1 or 2 more layers of bags, if necessary, to accommodate higher flow. If using more than 3 layers, place a second row of bags behind the first for reinforcement. Leave a gap in the top layer as a spillway.

2. MATERIALS:

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- For a straw bale sediment barrier, use straw bales (bound with wire or twine) and wood or steel stakes, minimum 4foot long (2" X 2" wood, re-bars or steel pickets), 2 stakes per bale.
- For a filter fence, use filter fabric (42 inches wide, tensile strength = 120 lbs., equivalent opening size 70); posts, minimum 5 feet long (4" X 4" wood or 1.3 lbs/ft steel); wire mesh (42 inches wide, 6 inch mesh maximum, 14-guage wire minimum); staples for wood posts (heavy duty, 1 inch long minimum); and wire for steel posts. Note: Some types of filter fence have stakes included and do not require all the above materials.
- For an erosion control log sediment barrier, use 9 to 18 inch diameter tubular mesh encased straw, coir or excelsior erosion logs, and 1 ½" x 1 ½" wood or rebar stakes, minimum 24 inches long, placed every 24 inches along length.
- For a natural erosion control log sediment barrier, use a minimum 6 to 8 inch diameter site harvested log with all branches trimmed flush to trunk.
- For a sandbag barrier, use sandbags and add rocks if needed.

3. MAINTENANCE:

- Inspect periodically and after each storm, and before the winter season.
- Replace damaged bales or logs; re-anchor displaced ones.
- Clean out accumulated sediment before it reaches the top of the bales or logs.
- Deposit the sediment where it will not enter a drainage way.
- To winterize a site adequately, all loose fill material should be protected from erosion. Cover fill material necessary for backfilling during the next grading season with sheeting of straw and install a sediment barrier around it. Remove loose material and rocks from the road and from drainage ditches or gutters. Gravel or pave driveways and access roads before the grading season ends. Where slope stabilization is necessary as a permanent erosion control measure, it should be installed before the winter season to prevent undue erosion.

4. TEMPORARY OR PERMANENT USE: Sediment barriers are temporary BMPs.

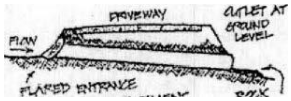
BMP: DRIVEWAY AND PARKING AREA STABILIZATION

1. METHODS: As soon as driveways and parking areas are graded, pave them or cover them with gravel to prevent soil erosion. Spread a 4" layer of ½" to ¾" gravel over these

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areas. Size culverts to handle the peak flow during a heavy storm. Generally, the Site Development Department, Road and Bridge Department or private engineer will size the culvert necessary for installation in roadside ditches along public roads. Where sizing requirements are not provided, as a rule-of-thumb, use a culvert with twice the cross-sectional area of the channel draining into it. The extra capacity is needed because of flow efficiency loss at the culvert's inlet.

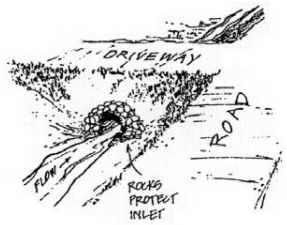
Erosion frequently occurs at culvert entrances. It Good is best to install a culvert with its inlet flush to the embankment. The edge of the pipe should be rounded or flared to improve flow into it. Place rocks or sandbags around the inlet to prevent scour. As flow volumes and velocities increase, outlet protection is usually needed. An outlet protector, such as a rock apron, is a device for absorbing the energy of water discharging from a pipe or channel. Outlet protectors should be used:



- Below culverts. Poor
- Below sediment trap outlets.
- Where a steep or paved channel drains into an unlined or natural drainageway.

2. MATERIALS: The following method should be used to construct a rock apron outlet protector. (Note: The following description applies to a ditch or culvert discharging at the side of a drainageway.)

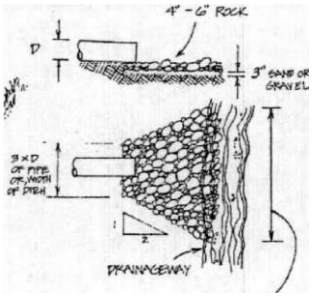
The ditch or culvert should end at the top of the bank of this drainageway if you are constructing a driveway and culvert across a natural drainageway.



A. Place a 3" layer of sand or gravel in a trapezoidal-shaped apron from the ditch or culvert to the middle of the drainageway. The apron width at a ditch should be as wide as the ditch. The apron width at a culvert should be 3 times the culvert's diameter. The apron should flare out at a ratio of 1' sideways for each 2' of length until the apron is 5 times the width of the ditch or culvert.

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B. Place a layer of 4" to 6" rock on the top of the apron. The top of the finished apron should be at the same level as the inflowing ditch or culvert and should slope at the existing grade.



3. MAINTENANCE:

- Inspect inlets and outlets during and after each storm.
- Replace dislodged stones with larger ones.
- Enlarge the apron if erosion is occurring around its edges.

4. TEMPORARY OR PERMANENT USE: Driveway and parking area stabilization can be temporary or permanent BMPs.

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BMP: INFILTRATION SYSTEMS

1. METHODS: An infiltration system is a device used to percolate runoff into the soil. A typical system is a rock-filled trench/basin (called a dry well) or Infiltrator Chambers. Both mechanisms are similar to a septic system's leach field. The rock-filled trench is limited in storage capacity compared to the Infiltrator Chamber. You should infiltrate runoff from all impervious surfaces, including roof tops, driveways, and areas where the soil has been packed down.

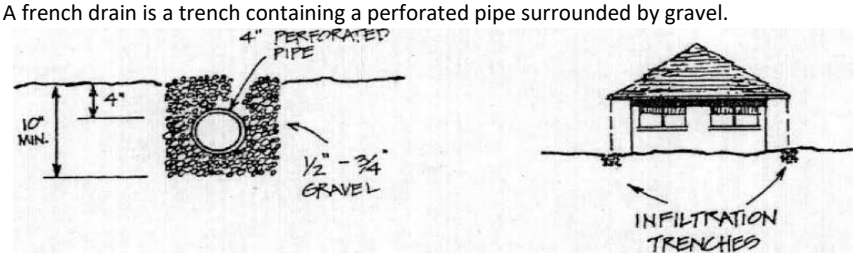
An infiltration system should be used:

- Below roof drip lines;
- In conjunction with downspouts/gutters;
- Along driveways and walkways;
- Along dikes and ditches; ▪ Below sediment trap outlets; and ▪ On flat or gently-sloping ground.

Infiltration systems are required on all BMP Permits and for all development where the roof square footage area is greater than 1,750 square feet.

The capacity of infiltration trenches decreases as the slope of the trench increases. Don't build infiltration trenches with drain slopes steeper than 15%. Where a roof drip line or driveway exceeds 15% slope, install a lined ditch to convey the runoff to a dry well or lateral infiltration trench located along a slope contour.

A french drain is a trench containing a perforated pipe surrounded by gravel.

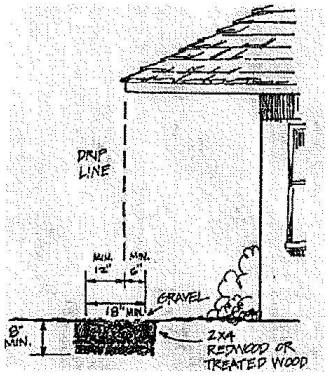


Where water dripping from a roof will fall on a slope above a house's foundation, install a french drain to convey the roof drip to an infiltration system away from the house. The french drain will prevent water from seeping under the foundation and weakening it.

Where an infiltration system is located below a disturbed area, install a sediment barrier to remove the soil before it reaches the system.

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Removing sediment from the runoff will increase the efficiency of the infiltration system and reduce maintenance costs.



The size of the infiltration system depends on soil permeability, runoff area and is sized according to storm events. The system must be able to infiltrate at a minimum 0.5" of precipitation per hour, which is 90% of the precipitation from storm events. A more effective system would be designed for 1" of precipitation which is 95% of the annual storm events. If you have hired an architect or engineer to prepare the plans for your house, he or she can calculate the size of the infiltration system needed.

The following method should be used to construct a roof drip line infiltration trench:

A. Dig a trench of the required size along the roof drip line as shown. Allow 3" extra width for the border boards.

B. Add the border boards (which are optional) and gravel to fill the trench to ground level.

C. Downspout/gutter infiltration devices are designed per project. Either an engineer, contractor or the County's Site Development Department can assist on a design. See diagrams for examples of these devices.

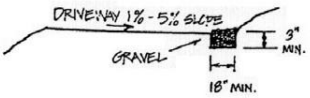
The following method should be used to construct a driveway infiltration trench when the driveway surface is paved or non-erodible:

A. Grade the driveway with a 1%-5% slope towards the trench.

B. If the driveway slope is less than 15%, size and construct a trench along the low side of the driveway as described above.

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C. If driveway slope is 15% or more, install a paved ditch or trench drain along the low side of the driveway and route the runoff to lateral infiltration trenches located along slope contours or to dry wells located in more level areas. Install a 2' long water bar between each section of ditch to prevent runoff from continuing down slope.



D. Do not install lateral infiltration trenches on fill slopes steeper than 4 horizontal to 1 vertical (4:1). Do not locate a driveway on top of an infiltration trench. Avoid placing infiltration trenches where their construction will damage tree roots.

The following method should be used to construct a dry well:

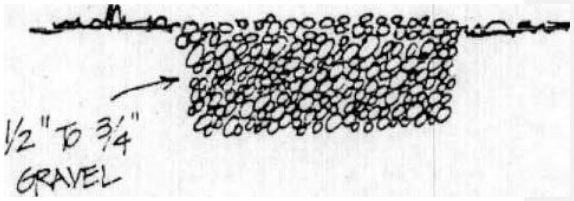
A. Determine the required dry well size.

B. Dig a basin of the required size and fill it with gravel. You may want to cover the top of the dry well with a shallow layer of sand or wood chips to create a more pleasing appearance.

Lateral Infiltration Trenches

2. MATERIALS:

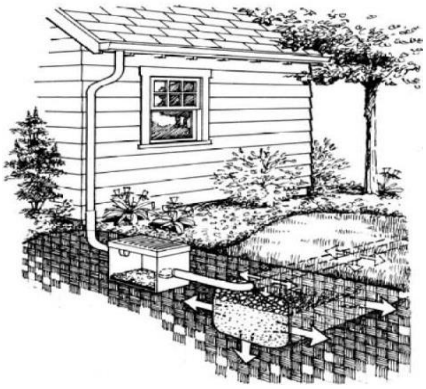
- Catch basin
- Perforated pipe
- Gravel
- Wood, cinderblock, etc.



3. MAINTENANCE: Clean out accumulated sediment and debris when the dry well fails to infiltrate storm runoff.

4. TEMPORARY OR PERMANENT USE: Infiltration systems are permanent BMP's.

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Dry Well (seepage pit)

BMP: SLOPE STABILIZATION

1. METHODS: Rip rapping is the use of cobble-size rock, generally 6"- 10" in size, placed closely together on disturbed soils to prevent erosion. Rock riprap is generally the most effective erosion control device for slopes greater than 30%. It can also be used on less steep slopes and works well with seeding. Concrete can be used to fill in between the rocks to hold the riprap securely in place, a common practice on steep slopes.

Slopes that are cut for building or driveway construction are sometimes so steep that vegetation or rip rapping alone cannot adequately protect them. Runoff from these over-steepened slopes often erodes the toe of the slope, causing continued slope slippage. Retaining walls prevent toe erosion and slope slippage.

The following method should be used to construct a native rock retaining wall. (Note: Any retaining wall over 4' high shall be designed by a licensed Colorado engineer and require a retaining wall permit.

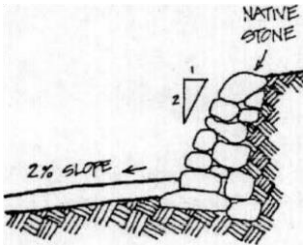
A. Remove all large rocks from the eroding slope and stockpile on site.

B. Dig a footing trench along the toe of the slope.

C. Place the largest rocks in the trench with their longest axes perpendicular to the slope.

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D. The face of the wall may vary from vertical to a 1:2 slope.



E. Fill the space behind the rock wall with leftover soil excavated from the site.

F. Slope the ground at the base of the wall at a 2% grade away from the wall and stabilize it with vegetation or mulch. If a driveway is located at the base of the wall, pave it up to the wall or install a curb.

The following method should be used to construct a wood retaining wall. Note: Any retaining wall over 4' high and shall be designed by a licensed Colorado engineer and require a retaining wall.

A. Set 6" x 6" wood posts into concrete foundations at least 2' into ground. Space the posts 5' apart.

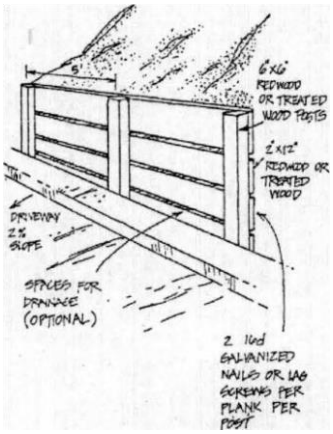
B. Nail 2" x 12" wood planks to the upslope side of posts. Leave a small vertical space between planks to allow drainage at the base of the wall and between planks. You may want to backfill the space behind the wall with surplus soil from excavations.

C. Slope the ground at base of the wall at a 2% grade away from the wall and stabilize it with vegetation or mulch. If a driveway is located at the base of the wall, pave it up to the wall or install a curb.

2. MATERIALS:

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- Rocks
- Redwood, cedar, or treated wood
- Rock-filled baskets (gabions)
- Railroad ties
- Concrete
- Steel



3. MAINTENANCE: Inspect periodically for erosion, slippage, sloughing, or other damage. Repair as needed.

4. TEMPORARY OR PERMANENT USE: Slope stabilization can be a temporary or permanent BMP.

BMP: INLET AND OUTLET PROTECTION

1. METHODS: The primary function of stormwater inlet protection is to decrease sedimentation/siltation impacts to these devices, which increases their functionality and longevity. Outlet protection, such as rip-raping drainage ways, reduces channelization and decreases erosion. Once a stormwater device is installed, protection to both inlets and outlets should then also be installed.

2. MATERIALS:

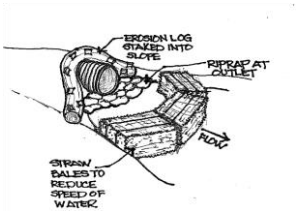
- Straw bales, erosion control logs, silt fence, sand bags and riprap.

3. MAINTENANCE:

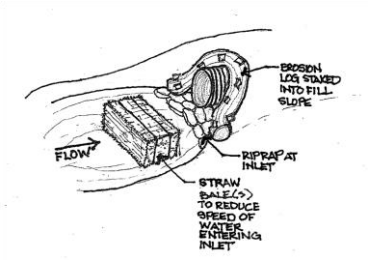
- Silt and sediment must be removed on a regular basis.
- Devices installed should be inspected after each storm event.

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4. **TEMPORARY OR PERMANENT USE:** Inlet and outlet protection can be a temporary or permanent BMP.

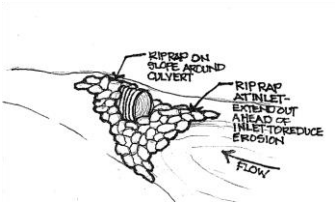


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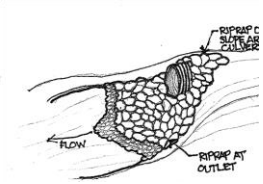


Temporary
Inlet Protection

Temporary
Outlet Protection



Permanent Inlet Protection



Permanent Outlet
Protection

BMP: SNOW REMOVAL

1.

METHODS: Snow removal is essential for the safe and efficient operation of roads, parking areas and driveways. In rural areas and along highways, snow is usually plowed to the sides of roads and allowed to melt there. In more densely developed areas, particularly in commercial areas and parking lots, snow must be removed and transported by truck to separate storage areas. Because of the concentration of petroleum products (from oil and gasoline) and salt in snow on roads and parking areas, the runoff from stockpiled snow can have significant impacts on water quality. Suggested methods for minimizing these impacts are:

- Where conditions permit, plow snow to the center of roadways and parking areas prior to removal by truck. This reduces the clogging of storm drains and reduces damage to curbing and other structures.

- Create a snow storage area that prevents contaminated snowmelt from reaching stream channels and groundwater. The size of the area will be vary with the needs of the municipality, but in general should be of sufficient size to allow evaporation. The area should be lined and bermed to prevent runoff, and incorporate a settling pond if necessary.

- If snow storage area is located near a waterway it should be surrounded by a sand berm for the snowmelt to percolate through.

- Do not dump or plow snow into or adjacent to stream channels, storm drains or other drainage ways.

- Remove plowed snow as soon as possible following storm to minimize on-site runoff.

2. MATERIALS: Silt fence, berms, hay bales, riprap, see other BMP's.

3. MAINTENANCE: Storage area(s) should be checked annually, and any necessary repairs to liners, berms or settling ponds. Sand and other foreign materials should periodically be removed as needed.

4. TEMPORARY OR PERMANENT USE: Permanent installation recommended.

BMP: SANDING PROCEDURES

1. METHODS: Wintertime sanding during storms is a necessity for roads and driveways in the upper Clear Creek watershed.
Since road sand typically contains some percentage of salt (5 to 20%), snow melt can have negative effects on water quality.
Recommended methods include:

- Use the minimum amount of sand needed to accomplish the job.
- Use the lowest feasible content of salt.
- Sweep sand from paved roads as soon as possible following storm.
- Recycle sand if feasible.
- Store sand on lined, curbed or bermed site and under shelter if possible.

2. **MATERIALS:** Sand with salt. Alternate materials to reduce fugitive dust and reduce the need for salt are being evaluated by various municipalities and the Department of
Transportation. Contact CDOT for more information.

3. **MAINTENANCE:** Sand should be removed from paved streets as soon as feasible following storm.

4. **TEMPORARY OR PERMANENT USE:** This is a permanent BMP.

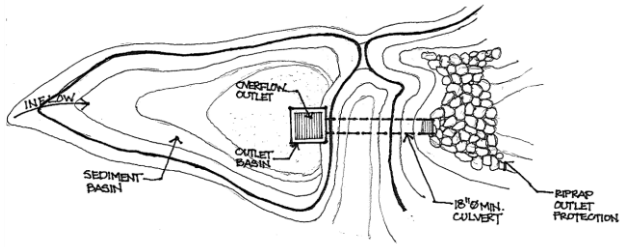
BMP: SEDIMENT BASINS

1. **METHODS:** Sediment basins are small impoundments that allow sediment to settle out of stormwater runoff. The outlet from the sediment basin should be designed to empty its volume over an extended period of time.

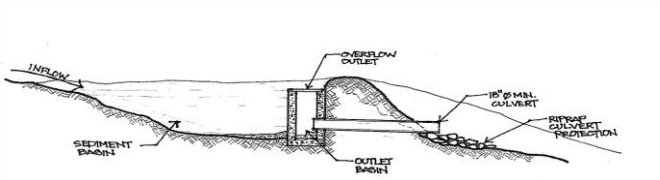
2. **MATERIALS:** Inlet structure and pipe, riprap and compacted earth.

3. **MAINTENANCE:** Remove sediment as required.

4. **TEMPORARY OR PERMANENT USE:** Permanent.



Sediment Basin



Sediment Basin Section

BMP: CONSTRUCTION FENCE

1. METHOD: Construction fence is required on slopes greater than 20° when adjacent to a public/private road, adjacent to any structures or if determined it is needed to provide for the health, safety or welfare of the general public.

There are several types of construction fence that can be used. They vary in strength and integrity. On steeper, rockier slopes, a chain link fence and metal post will be required. Gentler, less rocky slopes can use the welded wire fence and in some cases, the orange plastic construction fence will be required.

Brush barriers are also a mechanism that can be used in place of a construction fence. A brush barrier is the tree material removed from the site and placed on the downside of all excavation, relatively close to the ground. Trees are a great tool for decreasing rock fall from the property and should be used where appropriate.

2. MATERIALS:

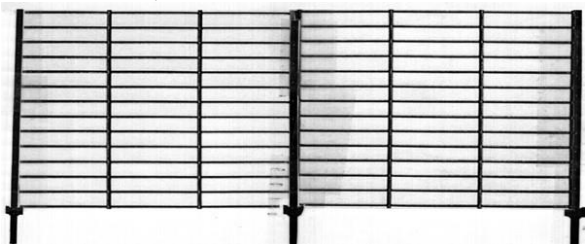
- 4' - 2"x4" Welded Wire Fence and standard 6' Fence Posts
- 4' or 6' Chain Link Fence with Steel Posts
- Native tree material used from site for a Brush Barrier

The individual permit will specify what type of safety barrier to use. These devices must be installed prior to any excavation.

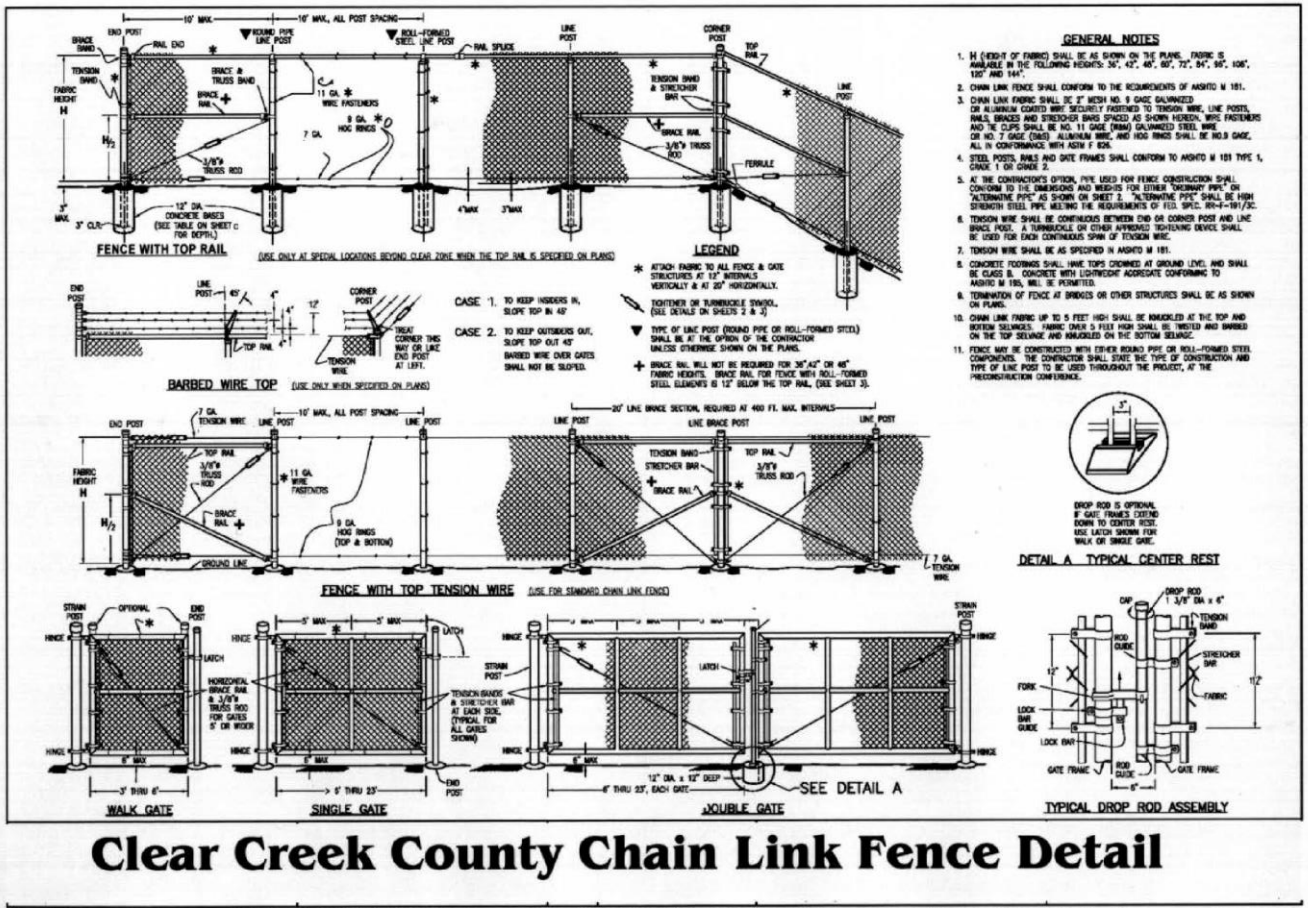
3. MAINTENANCE TIPS:

- Repair or replace fence as needed
- Repair or replace any fence posts
- Inspect daily after excavation
- Add additional tree material when needed

4. **TEMPORARY OF PERMANENT USE:** The fence or brush barrier is a temporary BMP. The fence or brush barrier can be removed after excavation is completed and the slope has been stabilize.



2" X 4" Welded Wire Fence with 6' High Poles



Clear Creek County Chain Link Fence Detail

BMP: PAVING

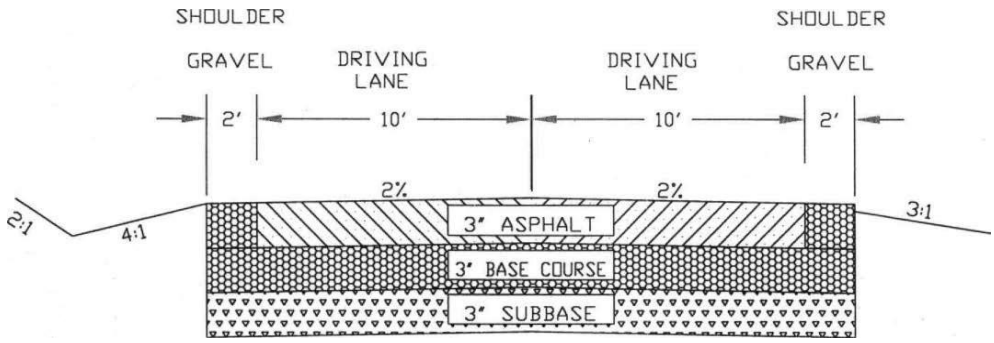
1. **METHODS:** Paving is required on private roads, driveways and parking areas when they are accessed by a paved road. Parking areas and drives must be paved with a minimum of 6 inches of road base compacted to 95% modified Proctor and 3 inches of asphalt, see figure. Paved parking areas for all other development shall be designed in accordance with Section 2.43. C, with TI equaling 6.0, as per Clear Creek County's Roadway Design and Construction Manual.

The County may also require pavement that drinks, or porous pavement. This requirement will be contingent upon any land use case stipulation/condition and will be designed by a Colorado licensed engineer.

2. **MATERIALS:**
   - 3" asphalt, 3"base course, 3" subbase, as per figure 6, Clear Creek County's Roadway Design and Construction Manual.

3. **MAINTENANCE TIPS:**
   - Replace/repair as required.

4. **TEMPORARY OR PERMANENT USE:** Paving is a temporary and Permanent BMP.



Typical Cross Section for a Primitive Status Road

- The Primitive Road Standard can be either one (1) or two (2) lanes as per Clear Creek County Roadway Design and Construction Manual .
- Parking areas are required to meet the same criteria as above (3”Asphalt, 3” Base Course and 3” Sub Base) with a maximum of 4% grade.

Tracked Changes to Building Code Amendments

IRC changes

- Restoring the electrical code provisions of the IRC. The State does not perform an electrical plan review. There may be instances the County would desire electrical plans submitted for review which the code would be enforceable.
- R102.4.4 changes to R102.4.3 to reflect the changed location within the code
- R105.1.3 changes to R105.1.2 changed location within the code
- Modified exemption 1 in R105.2 to reflect WUI requirements
- Added exception to R106.1 allows for waiving requirement of design professional
- Generally edited section additions/deletion/modification directives within the amendments for clarity.
- Move determination of fees by building official to R108.3 building permit valuations. From schedule of fees
- Deleted addition to of R108.4.1 Investigation fee, reworded R108.6 Work commencing before permit to include investigation fee equal to permit fee.
- Restored R110.4 Temporary occupancy. to code text
- R110.4.1 changed to reflect new location in code R110.3.1
- Board of appeals qualifications restored in code text
- Deleted additional sentence to habitable space did not add value to definition
- Sleeping room definition modified to reflect changes in code locations
- Table R301.2(1) modified for energy compliance requirements
- Provided code text into modified section stating location of requirements of openings in garage walls
- Automatic fire sprinkler requirements restored to code requirements exceptions modified
- R315 Carbon monoxide updated new location R311
- M1307 Appliance location update to reflect new title M1037 Appliance installation
- Removed the addition of G2415.2 CSST. Bonding requirements for CSST covered in G2411.1 and other metallic piping E3609.7
- Restored G2417.4.1 Test Pressure to code text.
- P2603.5.1 Sewer Depth modified for clarity in alignment with environmental health department OWTS regulations
- Remove deletion of electrical portions of the IRC, electrical portions will be in the code text
- Update Appendices for new title and locations
- Delete wildfire hazard mitigation appendix because of the adoption of the Colorado Wildfire Resiliency Code

IBC changes

- Generally edited section additions/deletion/modification directives within the amendments for clarity.
- Delete Inspection Record Card addition, obsolete due to GOVbuilt system

- Modified exemption 1 in R105.2 to reflect WUI requirements
- Delete section 116 – Unsafe structures and equipment replace with IRC appendix E for unsafe building and structures
- Section 1510 relocated 1512, updated for new location within code text
- Exception 2902.1 modified for clarity
- Delete appendix chapter W, Wildfire urban interface code replaces these requirements

IPC

- Deleted section 106 Permits now is 105 Permits, replace with IBC 105 permits section
- 305.4 freezing modified for clarity

IMC

- Deleted section 106 Permits now is 105 Permits, replace with IBC 105 permits section

IFGC

- Deleted section 106 Permits now is 105 Permits, replace with IBC 105 permits section

IEBC

- Generally edited section additions/deletion/modification directives within the amendments for clarity.

IECC

- Adopting appendices RE, RK, and RD to meet state minimum requirements.

IFC

- Will no longer be a stand-alone adoption is not included in the building code adoption
- Title amended for jurisdictional adoption
- 103.1 Creation of agency modified to recognize each fire protection agency within Clear Creek County

CRWC

- New Code adoption due to state requirements
- Title amended for jurisdiction adoption
- 102 Applicability. Adjusted Exemptions 8 and 10
- 103 Creation of agency. Building Department will administer and enforce provisions of this code
- 106 Fees. Replace with 109 IBC County fee schedule
- 108 Construction Documents. As required by IRC and IBC accordingly
- 109 Permits. As required by IRC and IBC accordingly
- 303 Mapping. Adopting the most recent Colorado Wildfire Resiliency Code Map
- 401 General. Adjusted exemption to align with section 102

Evergreen Fire/Rescue

1802 Bergen Parkway • Evergreen, Colorado 80439
Phone: 303-674-3145 • Fax: 303-674-8701

March 9, 2025

Clear Creek County Building Department
1111 Rose St
Georgetown, CO 80444

Dear Chief Building Official Danielson:

Evergreen Fire/Rescue supports Clear Creek County's proposed adoption of the 2024 International Fire Code and the 2025 Colorado Wildfire Resiliency Code, as amended. We look forward to the continued coordination between our agencies.

Please contact me if you have any questions.

Respectfully,

John Sebastian

Digitally signed by
John Sebastian
Date: 2026.03.09
08:59:52-06'00'

John Sebastian
Fire Marshal
Evergreen Fire/Rescue

Clear Creek Fire Authority

Post Office Box 507
Dumont, Colorado 80436

March 9, 2026
Clear Creek Board of County Commissioners
C/O David Danielson
Re: Support for the adoption of the 2024 International Code Sets

Dear Commissioners,

I am writing on behalf of the Clear Creek Fire Authority members and staff to express our strong support for adopting the 2024 International Fire Code (IFC), the 2024 International Residential Code (IRC), and the 2025 Colorado Wildfire Resiliency Code (CWRC), along with their local amendments. We believe this is a crucial step in enhancing the safety and well-being of our community members, properties, and first responders.

The currently adopted 2018 IFC, while valuable, is now three code sets and seven years behind and has several limitations that must be addressed to meet modern fire and life safety challenges. We recognize that adopting the latest version of the code is the standard for safeguarding life and property from hazards associated with fires, explosions, and dangerous materials. These updated codes will provide several vital improvements to our community, including:

- The 2024 IFC provides lithium battery device use, charging, and storage. The requirement for carbon dioxide detectors has been expanded to include all occupancies, and a new chapter addressing temporary cooking and heating operations has been added.

- The 2024 IRC adoption to include residential sprinklers in all new construction will be the most significant increase in fire safety in our recent history. This will enable homes constructed in both remote and urban areas to provide greater safety for occupants and responding firefighters. Sprinklers help keep fires small and semi-contained until firefighters arrive.

- The 2025 CWRCwill establish requirements for providing defensible space, along with improving the requirements for driveways and property access roads**.** The code requires property owners to maintain their mitigation efforts beyond the initial construction period.

The implementation of these updated international codes is a proactive and responsible measure to protect everyone in our jurisdiction. It demonstrates a commitment to preventing tragedies before they occur and to ensuring that our community remains a safe place to live and work.

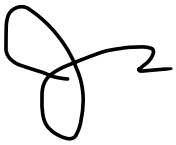
Telephone: (303) 567-4342 Fax: (303) 567-4739

Clear Creek Fire Authority

Post Office Box 507
Dumont, Colorado 80436

We urge you to vote in favor of adopting the 2024 IFC, IRC, and 2025 CWRC code sets, along with their corresponding amendments. Thank you for considering this critical matter. We look forward to seeing our county's safety standards continue to improve.

Regards,



Jeremy T Jones
Fire Chief
Clear Creek Fire Authority
(303)506-8457
jjones@clearcreekfire.com

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Donna Gee, County Assessor
Subject: Abatement Request for Zwink Case Number 26-01

RECOMMENDATION
For case number 26-01, the Assessor recommends approval of petitioner's request for abatement or refund of taxes and for the Board to issue an order directing a refund of 2025 taxes in the amount of $236.88 pro rata by all jurisdictions receiving payment thereof.

BACKGROUND
Every two years the Assessor's Office evaluates all property values based on the sales approach. The 2025 and 2026 values were set by sales that occurred July 1, 2022 through June 30, 2024 based on current property characteristic and best information available . The property owner has challenged the value for the 2025 tax year.

ANALYSIS
This abatement appeal concerns a cabin in Empire. The Assessor's Office currently has the property coded as traditional. Upon review of the photos provided by the petitioner, the Assessor agrees that the improvement is a cabin and the original value should be corrected to $179,800, resulting in a recommended abatement or refund of 2025 taxes in the amount of $236.88.

CONCLUSION
For 2025, the Assessor recommends approval.

FISCAL IMPACT
The assessor will adjust the value from $230,540 to $179,800 if approved.

ATTACHMENTS (If applicable)
1. Abatement with photos

PETITION FOR ABATEMENT OR REFUND OF TAXES

County: Clear Creek

RECIVED
FEB 17 2026
CLEAR CREEK COUNTY ASSESSOR OFFICE

R007170

26-01

Section 1: Property Details Date Received:

Date Completed:	02/12/2026
Owner Name:	Randall Keith Zwink
Owner Mailing Address:	8312 Volusia Pl. Temple Terrace, FL. 33637
Schedule/Parcel Number:	R007170/183728208008
Property Address/Legal Description:	79 E Park Ave. Empire, CO. 80438

Section 2: Abatement or Refund Reason(s)

Property Tax Year: 2025	Petitioner Estimate of Value: $138,710
Reason for abatement or refund request:	Based on the DESIGN being CABIN (Not traditional) the value of this dwelling should be 75% of the approximately $300 per sq foot averaged traditional design sales in the area from Jan 1, 2023 - June 30, 2024. 75% of $300 per sq ft equals $225 per sq ft X 494 sq ft to equal $111,150 for the dwelling. Add the land value $27,560 to equal a total $138,710 for the estimate of value. In any event, however, the $410.89 per sq ft assessed for this property is far above the $300 per sq ft average in the area based on the area sales prices from Jan 1, 2023 - June 30, 2024.

Section 3: Attestation

I declare, under penalty of perjury in the second degree, that this petition, together with any accompanying exhibits or statements, has been prepared or examined by me, and to the best of my knowledge is true and correct.

Print Name of Person Signing: Randall Keith Zwink

[redacted]

Signature: Randall Keith Zwink Date: 02/12/2026

*Signing as: ■ Owner ☐ Agent *Letter of agency must be attached when petition is submitted by an agent.

Section 4: Assessor Recommendation (Assessor Use Only) **Check each box applicable if mixed use.**

Property Type: ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Mixed-Use ☐ Other

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original	230,540			7.05/6.25	30,660	71.266	1,074.38
Corrected	179,800			"	24,890	"	837.50
Abated	-50,740				-5,770	Refund	236.88

Appeal

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Assessor Recommendation:	Approve ☑	Deny ☐
Protest in Abatement/Refund Tax Year:*	No ☑	Yes ☐ (If a protest was filed, attach a copy of the NOD)
Reason for Denial Recommendation:		
Assessor or Deputy Assessor Signature:		Date: 2/18/26

Section 5: Mutual Agreement

The Commissioners of _____ County authorize the assessor by Resolution No._____ to review petitions for abatement or refund and to settle by written mutual agreement any such petition for abatement or refund in an amount of $_____ or less per tract, parcel, or lot of land or per schedule or personal property in accordance with § 39-1-113(1.5), C.R.S. The Petitioner and Assessor mutually agree with the values and taxes as outlined in Section 4 or in the table below.

Petitioner Signature:	Date:
Assessor or Deputy Assessor Signature:	Date:

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Section 6: Decision of the County Commissioners
(Must be completed if Section 5 does not apply)

The County Commissioners of _____ County, State of Colorado, held a meeting on __/__/__.
The following members were present:

_____

_____

Notice of the meeting and an opportunity to appear were given to the Petitioner ☐ **p** ☐ **not present** and the County Assessor ☐ **p** ☐ **not present**

The Board of County Commissioners (BOCC) are fully advised and have considered the petition. The Board ☐ **agrees** ☐ **does not agree** with the recommendation of the Assessor. The petition has been ☐ **approved** ☐ **approved in part** ☐ **denied** with an abatement/refund as follows:

Year	Taxes Abate/Refund	**BOCC Chairperson's Signature**	**Date**

I, _____County Clerk and Ex-Officio Clerk of the Board of County Commissioners, do hereby certify that the above order is truly copied from the record of the proceedings of the Board of County Commissioners.

County Clerk's or Deputy County Clerk's Signature **Date**

Note: Abatements greater than $10,000 per schedule per year must be submitted in duplicate to the Property Tax Administrator for review.

Section 7: Action of the Property Tax Administrator

Division Review	Approved ☐	Denied ☐	Code:	Reviewer:
Tax Year:	Amount:			
Timely Filed:	Yes ☐	No ☐	Date Completed:	

Administrative Assistant's Signature **Date** **Property Tax Administrator's Signature** **Date**

Property Record Card

Clear Creek County Assessor

Land AD 06 Occurrence 1

Use Code	14 - RESIDENTIAL	Road Type	1 - PRIMARY PAVED
Road Maintained	Yes	Topog Front	1 - TOPOGRAPHY FRONT - LEVEL
Topog Mid	TOPOGRAPHY MIDDLE - LEVEL	Topog Back	1 - TOPOGRAPHY BACK - LEVEL
Not Buildable	No	Property View	No
Southern Exposure	No	Creek Front	No
Shape	1 - TYPICAL	Electric	Yes
Natural Gas	Yes	Sewer	1 - SEWER - PUBLIC
Water	1 - WATER - PUBLIC	Base Value	Empire
Abstract Code	1112 - RESIDENTIAL LAND		

SubArea		ACTUAL	SFLA	BSMT_FIN	FOOTPRINT	UNITS_BUILDINGS
Square Feet		4800	4800			
Units						1
Total		4,800.00	4,800.00			1.00
	Value	**Rate**	**Rate**	**Rate**	**Rate**	**Rate**
	$27,560	5.74	5.74			27,560.00

Residential Towns Occurrence 1

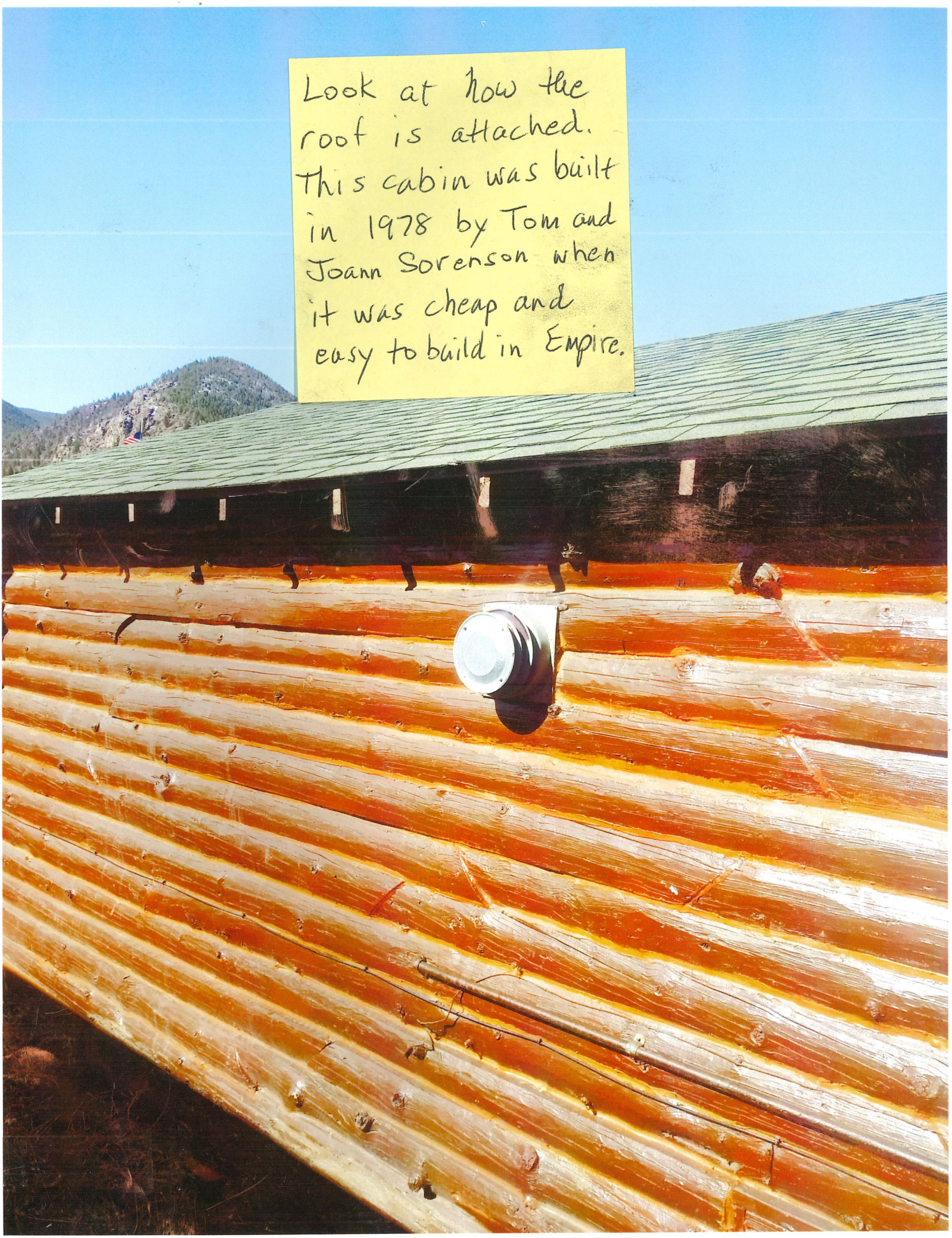
Design	~~TRADITIONAL~~ CABIN	Quality	FAIR QUALITY
Condition Age	CONDITION - FAIR	SFLA	494
Year Built	~~1900~~ 1978	Bedrooms	1
Baths	1	Total Rooms	0
Type	1 - ONE STORY	Exterior Construction	1 - PLYWOOD/HARDWOOD
Roof Type	COMPOSITE SHINGLE	Sub	494

SubArea		ACTUAL	SFLA	BSMT_FIN	FOOTPRINT	UNITS_BUILDINGS
SFLA		494	494			
Units						1
Total		494.00	494.00			1.00
	Value	**Rate**	**Rate**	**Rate**	**Rate**	**Rate**
	$202,980	410.89	410.89			202,980.00

Please update Property Record Card. Thanks. Rawlee Keith Zuniga 2/12/2026

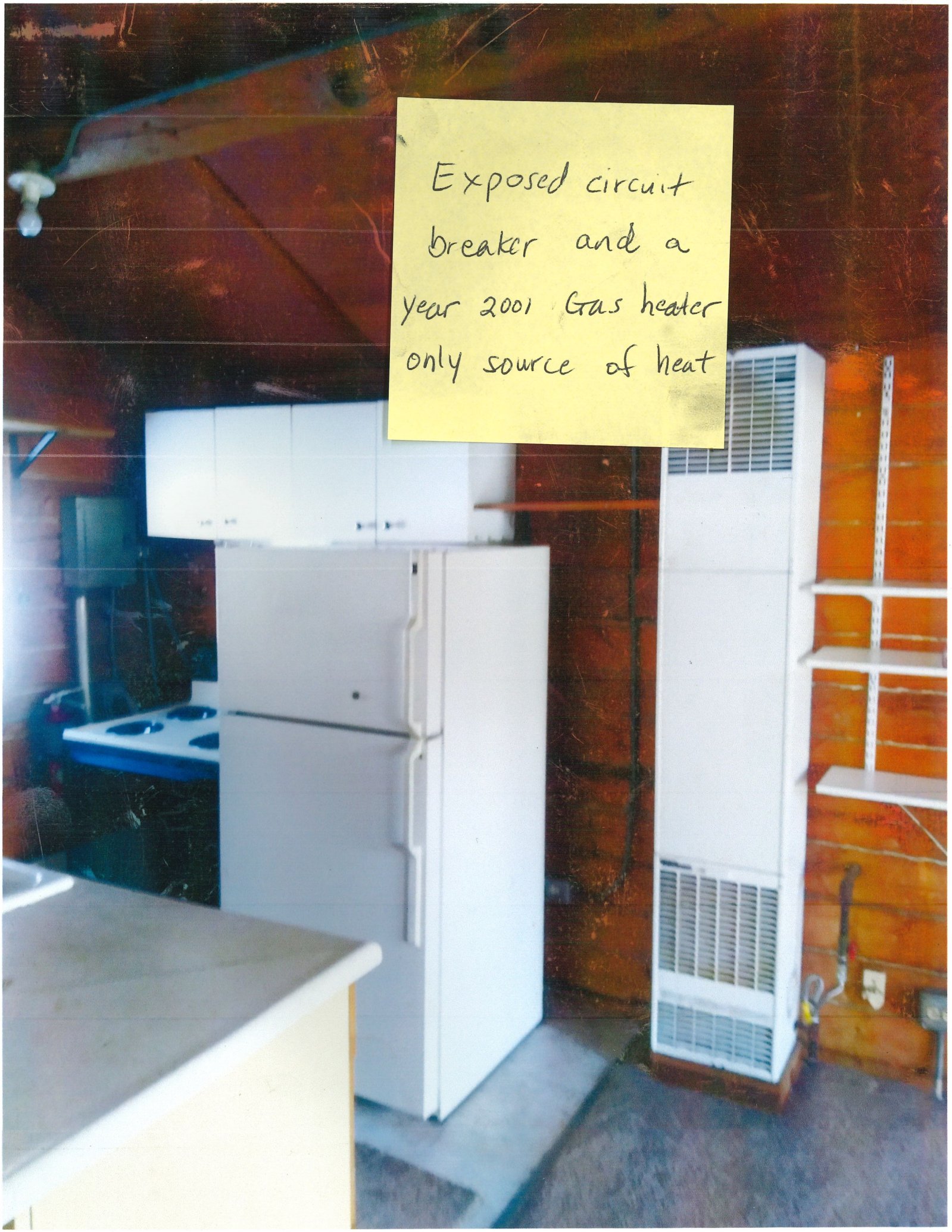



Very small bathroom, no tub, Just a 3' by 3' stand up shower. Typical "cabin" style.


Look at how the roof is attached. This cabin was built in 1978 by Tom and Joann Sorenson when it was cheap and easy to build in Empire.


The only entrance into the Cabin.


The ceiling of Room # 1. Exposed logs through out with no inside insulation, exposed wiring. Very basic construction


Exposed circuit breaker and a year 2001 Gas heater only source of heat


No attic, no sheetrock, exposed wiring, Room# 2. bedroom.

The Kitchen is attached to the living room #1
low quality cabinets and appliances

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Donna Gee, County Assessor
Subject: Abatement Request for JT Lucas Case Number 26-02

RECOMMENDATION
For case number 26-02, the Assessor recommends approval of petitioner's request for abatement or refund of taxes and for the Board to issue an order directing a refund of 2024 taxes in the amount of $1,619.67 pro rata by all jurisdictions receiving payment thereof.

BACKGROUND
This property was purchased in 2023 as a private sale from a neighbor. In 2025 the property owner contacted the Assessor's office indicating that due to the split at the time of sale, the property now has no access. The Assessor's records were updated for 2025. The property owner owned the property in 2024 as well therefor the Assessor records should be corrected.

ANALYSIS
This abatement appeal concerning vacant land in Dumont, the Assessor agrees that for 2024 the property had no access and the original value should be corrected to $7,440, resulting in a recommended abatement or refund of 2024 taxes in the amount of $1,619.67.

CONCLUSION
For 2024, the Assessor recommends approval.

FISCAL IMPACT
The assessor will adjust the value from $87,130 to $7,440 if approved.

ATTACHMENTS (If applicable)
1. Abatement with Statement of Authority

PETITION FOR ABATEMENT OR REFUND OF TAXES

County: Clear Creek

Date Received _____
(Use Assessor's or Commissioners' Date Stamp)

RAD607
26-02

Section I: Petitioner, please complete Section I only.

Date: 01/16/26
Month Day Year

Petitioner's Name: JT Lucas Family Properties

Petitioner's Mailing Address: 1659 Shasta St.

Richmond CA 94804
City or Town State Zip Code

SCHEDULE OR PARCEL NUMBER(S)	PROPERTY ADDRESS OR LEGAL DESCRIPTION OF PROPERTY
183724100025	S:24 T:3 R:74 24-3-74 Gov lots 9 and 10 377/44-46 443-986

Petitioner requests an abatement or refund of the appropriate taxes and states that the taxes assessed against the above property for the property tax year 24 are incorrect for the following reasons: (Briefly describe why the taxes have been levied erroneously or illegally, whether due to erroneous valuation, irregularity in levying, clerical error, or overvaluation. Attach additional sheets if necessary.)

The property was inaccurately valued after it was separated from other pa

Petitioner's estimate of value: $ 2,010 (2024)
Value Year

I declare, under penalty of perjury in the second degree, that this petition, together with any accompanying exhibits or statements, has been prepared or examined by me, and to the best of my knowledge, information, and belief, is true, correct, and complete.

Mary McDraed
Petitioner's Signature

[redacted]

By _____ Daytime Phone Number (____) _____
Agent's Signature*

Printed Name: _____ Email _____

*Letter of agency must be attached when petition is submitted by an agent.

If the Board of County Commissioners, pursuant to § 39-10-114(1), C.R.S., or the Property Tax Administrator, pursuant to § 39-2-116, C.R.S., denies the petition for refund or abatement of taxes in whole or in part, the Petitioner may appeal to the Board of Assessment Appeals pursuant to the provisions of § 39-2-125, C.R.S., within thirty days of the entry of any such decision, § 39-10-114.5(1), C.R.S.

Section II: **Assessor's Recommendation**
(For Assessor's Use Only)

Tax Year 2024

no access

	Actual	Assessed	Tax
Original	87,130	24310	1,771.22
Corrected	7440	2080	151.55
Abate/Refund			1619.67

☒ **Assessor recommends approval as outlined above.**

If the request for abatement is based upon the grounds of overvaluation, no abatement or refund of taxes shall be made if an objection or protest to such valuation has been filed and a Notice of Determination has been mailed to the taxpayer, § 39-10-114(1)(a)(I)(D), C.R.S.

Tax year: _____ Protest? ☐ No ☐ Yes (If a protest was filed, please attach a copy of the NOD.)

☐ **Assessor recommends denial for the following reason(s):**

Assessor's or Deputy Assessor's Signature

15-DPT-AR No. 920-66/17

The property was inaccurately valued after it was separated from other parcels we sold. It is very steep and has no access to Mill Creek Road. In 2025 the assessor reduced the assessed value from $24,310 to $2,010.

FOR ASSESSORS AND COUNTY COMMISSIONERS USE ONLY
(Section III or Section IV must be completed)

Every petition for abatement or refund filed pursuant to § 39-10-114, C.R.S. shall be acted upon pursuant to the provisions of this section by the Board of County Commissioners or the Assessor, as appropriate, within six months of the date of filing such petition, § 39-1-113(1.7), C.R.S.

Section III: Written Mutual Agreement of Assessor and Petitioner

(Only for abatements up to $10,000)

The Commissioners of _____ County authorize the Assessor by Resolution No. _____ to review petitions for abatement or refund and to settle by written mutual agreement any such petition for abatement or refund in an amount of $10,000 or less per tract, parcel, or lot of land or per schedule of personal property, in accordance with § 39-1-113(1.5), C.R.S.

The Assessor and Petitioner mutually agree to the values and tax abatement/refund of:

Tax Year _____

	Actual	Assessed	Tax
Original	_____	_____	_____
Corrected	_____	_____	_____
Abate/Refund	_____	_____	_____

Note: The total tax amount does not include accrued interest, penalties, and fees associated with late and/or delinquent tax payments, if applicable. Please contact the County Treasurer for full payment information.

_____ _____
Petitioner's Signature **Date**

_____ _____
Assessor's or Deputy Assessor's Signature **Date**

Section IV: Decision of the County Commissioners

(Must be completed if Section III does not apply)

WHEREAS, the County Commissioners of _____ County, State of Colorado, at a duly and lawfully called regular meeting held on _____/_____/_____, at which meeting there were present the following members:
Month Day Year

_____

_____

with notice of such meeting and an opportunity to be present having been given to the Petitioner and the Assessor of said County and Assessor _____ ***(being present--not present)*** and
Name

Petitioner _____ ***(being present--not present)***, and WHEREAS, the said
Name

County Commissioners have carefully considered the within petition, and are fully advised in relation thereto, NOW BE IT RESOLVED that the Board ***(agrees--does not agree)*** with the recommendation of the Assessor, and that the petition be ***(approved--approved in part--denied)*** with an abatement/refund as follows:

Year	Assessed Value	Taxes Abate/Refund
_____	_____	_____

_____
Chairperson of the Board of County Commissioners' Signature

I, _____ County Clerk and Ex-Officio Clerk of the Board of County Commissioners in and for the aforementioned county, do hereby certify that the above and foregoing order is truly copied from the record of the proceedings of the Board of County Commissioners.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said County this _____ day of _____, _____.
Month Year

_____
County Clerk's or Deputy County Clerk's Signature

Note: Abatements greater than $10,000 per schedule, per year, must be submitted in duplicate to the Property Tax Administrator for review.

Section V: Action of the Property Tax Administrator

(For all abatements greater than $10,000)

The action of the Board of County Commissioners, relative to this petition, is hereby
☐ Approved ☐ Approved in part $_____ ☐ Denied for the following reason(s):

_____ _____ _____
Secretary's Signature Property Tax Administrator's Signature Date

STATEMENT OF AUTHORITY

1. This Statement of Authority relates to an entity[1] named JT Lucas Family Properties LLC, and is executed on behalf of the entity pursuant to the provisions of Section 38-30-172, C.R.S.

2. The type of entity is a:

☐ trust	☐ registered limited liability partnership
☐ nonprofit corporation	☐ registered limited liability limited partnership
☒ limited liability company	☐ limited partnership association
☐ general partnership	☐ government or governmental subdivision or agency
☐ limited partnership	☐ corporation
☐ _____	

3. The entity is formed under the laws of Colorado

4. The mailing address for the entity is 1659 Shasta St, Richmond, CA 94804

5. The ☐ name ☒ position of each person authorized to execute instruments conveying, encumbering, or otherwise affecting title to real property on behalf of the entity is General Manger, Mary McDonald.

6.[2] The authority of the foregoing person (s) to bind the entity is ☒ not limited ☐ limited as follows: _____.

7. Other matters concerning the manner in which the entity deals with interests in real property: _____

Executed this January 16, 2026.

Mary McDonald
Signature

_____
Signature

STATE OF COLORADO
COUNTY OF _____ } SS:

The foregoing instrument was acknowledged before me this _____ day of _____, by _____.

Witness my hand and official seal.

CLR 1/16/26
See Attached Notary Acknowledgment Certificate
Notary Public

My commission expires: _____

[1]This form should not be used unless the entity is capable of holding title to real property.
[2]The absence of any limitation shall be prima facie evidence that no such limitation exists.
[3]The statement of authority must be recorded to obtain the benefits of the statute.

CALIFORNIA ACKNOWLEDGMENT CERTIFICATE

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State Of: **California**
County Of: **Contra Costa**

On January 16th, **2026** before me, **Carlos Eduardo Leal Reyes** Notary Public, personally appeared,

Mary McDonald

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that she/he/they executed the same in her/his/their authorized capacity(ies), and that by her/his/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

JAS1 CARLOS EDUARDO LEAL REYES COMM. # 2489682 NOTARY PUBLIC · CALIFORNIA CONTRA COSTA COUNTY MY COMMISSION EXPIRES MAY 9, 2028 JAS1

Signature: **Carlos Eduardo ~~Leal~~ Reyes**

Title of Document: Statement of Authority

Total Number of Pages including Attachment: 2 pgs.

Notary Commission Expiration Date: May 09, 2028

Notary Commission Number: 2489682

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Donna Gee, County Assessor
Subject: Abatement Request for LFM Properties Case Number 26-03

RECOMMENDATION
For case number 26-03, the Assessor recommends partial approval of petitioner's request for abatement or refund of taxes and order directing refund of 2025 taxes for account R014922 in the amount of $4,781.26 pro rata by all jurisdictions receiving payment thereof and consideration of Assessor's recommendation to deny petitioner's request for abatement or refund of taxes for R014921 and R014923.

BACKGROUND
Every two years the Assessor's Office evaluates all property values based on the sales approach. The 2025 and 2026 values were set by sales that occurred July 1, 2022 through June 30, 2024 based on current property characteristic and best information available . The property owner has challenged the value for the 2025 tax year on three properties.

ANALYSIS
R014921 current value of $182,200 is supported by comparable sales
R014923 is coded as a natural resource and can't be reduced in value
R014922 is currently coded as commercial and should not be. I will be updating the cabins to fair condition and changing the account to a residential code.

CONCLUSION
For 2025, the Assessor recommends partial approval.
R014921 and R014923 – Denial
R014923 – Approval

FISCAL IMPACT
The assessor will adjust account R014922 the value from $281,880 to $195,900 if approved.

ATTACHMENTS (If applicable)
1. Abatement with photos

PETITION FOR ABATEMENT OR REFUND OF TAXES

26-03

County: Clear Creek County

Section 1: Property Details **Date Received:**

Date Completed:	2/3/2026
Owner Name:	LFM Properties, LLC owner Scott Dugan
Owner Mailing Address:	PO Box 55, Grant, CO 80448
Schedule/Parcel Number:	R014921, R014922, R014923
Property Address/Legal Description:	Oceanic MS 5698 4.97 Ac 33-5-75 & imps 483/172 R014921 Gaelic 5718 4.97 Ac 33-5-75 416/391 R014922 Celtic 5720 4.97 Ac 33-5-75 477/418 R014923-Deny

Section 2: Abatement or Refund Reason(s)

Property Tax Year: 2025	Petitioner Estimate of Value: #200,000 residential, agriculture

Reason for abatement or refund request:
This is a camp with a run down cabin and 3 sided opened air sheds. No services available from Clear Creek County, Seasonal access 6 months a year, NON-commercial property, the property is in Fair to poor condition

Section 3: Attestation

I declare, under penalty of perjury in the second degree, that this petition, together with any accompanying exhibits or statements, has been prepared or examined by me, and to the best of my knowledge is true and correct.

Print Name of Person Signing: Scott Dugan

[redacted]

Signature: Scott Dugan Date: 2/3/2026

*Signing as: ☒ Owner ☐ Agent *Letter of agency must be attached when petition is submitted by an agent.

Section 4: Assessor Recommendation (Assessor Use Only) **Check each box applicable if mixed use.**

Property Type: ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Mixed-Use ☐ Other

R014921 Residential	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original	281,880			7.27		75.503	5746.54
Corrected	195				1,417.65		965.28
Abated						Refund	4,781.26

R014922 Commercial	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original	281,880			27		75.503	5746.54
Corrected	195,990				205/6.25	11	965.28
Abated						Refund	4,781.26

R014923 Vacant	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original	990			27	270	75.503	20.38
Corrected							
Abated							

Assessor Recommendation:	Approve ☑	Deny ☑
Protest in Abatement/Refund Tax Year:*	No ☐	Yes ☐ (If a protest was filed, attach a copy of the NOD)
Reason for Denial Recommendation: R014923 is a natural resource		
Assessor or Deputy Assessor Signature:	Date: 2/18/26	

CLEAR CREEK COUNTY
AGENT AUTHORIZATION FORM

This Form provides the opportunity for the property owner to designate an agent to protest or abate Real & Personal property with the Clear County Assessor's Office.

I, LFM Properties, LLC (property owner) of the County of Park,

State of CO, have appointed Scott Dugan my true and lawful representative to act in my name and in my stead and on my behalf in connection with any action necessary in order to appeal real or personal property described as follows: Accounts: R014921, R012922, R014923 or Oreana MS-549B 4.97 acres 3-3-75 & IMPS 482/72 & Cadic 571B 4.97 acres 33-5-75 416/391 & Celtic MS570B 4.97 acres 33-5-75 427/418

I, AS PROPERTY OWNER UNDERSTAND THAT IT IS MY RESPONSIBILITY TO MAKE SURE THAT MY DESIGNATED REPRESENTATIVE IS AWARE OF AND RESPONSIBLE FOR ALL REQUIREMENTS NECESSARY TO COMPLY AND COMPLETE WITH THE ABOVE AFOREMENTIONED ACTION.

Agreed:

Signature of Property Owner	Print Name	Date
	Scott Dugan	2/6/2026
Mailing Address	E-mail Address	Telephone Number
PO Box 55, Cromwell CO 80448	dugan3mile@gmail.com	303-870 0802

Subscribed and sworn before me by SCOTT DUGAN this 06 day of FEBRUARY, 2026.

SEANNA G PIDEK
NOTARY PUBLIC - STATE OF COLORADO
NOTARY ID 20024026369
MY COMMISSION EXPIRES AUG 15, 2026

Notary Public

My Commission expires: 15 AUGUST 2026 (date)

Section 5: Mutual Agreement

The Commissioners of _____ County authorize the assessor by Resolution No._____ to review petitions for abatement or refund and to settle by written mutual agreement any such petition for abatement or refund in an amount of $_____ or less per tract, parcel, or lot of land or per schedule or personal property in accordance with § 39-1-113(1.5), C.R.S. The Petitioner and Assessor mutually agree with the values and taxes as outlined in Section 4 or in the table below.

Petitioner Signature:	Date:
Assessor or Deputy Assessor Signature:	Date:

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Section 6: Decision of the County Commissioners
(Must be completed if Section 5 does not apply)

The County Commissioners of _____ County, State of Colorado, held a meeting on __/__/__.
The following members were present:

_____

_____

Notice of the meeting and an opportunity to appear were given to the Petitioner ☐ **p** ☐ **not present** and the County Assessor ☐ **p** ☐ **not present**

The Board of County Commissioners (BOCC) are fully advised and have considered the petition. The Board ☐ **agrees** ☐ **does not agree** with the recommendation of the Assessor. The petition has been ☐ **approved** ☐ **approved in part** ☐ **denied** with an abatement/refund as follows:

_____ _____ _____ _____

Year Taxes Abate/Refund **BOCC Chairperson's Signature** **Date**

I, _____County Clerk and Ex-Officio Clerk of the Board of County Commissioners, do hereby certify that the above order is truly copied from the record of the proceedings of the Board of County Commissioners.

_____ _____

County Clerk's or Deputy County Clerk's Signature **Date**

Note: Abatements greater than $10,000 per schedule per year must be submitted in duplicate to the Property Tax Administrator for review.

Section 7: Action of the Property Tax Administrator

Division Review	Approved ☐	Denied ☐	Code:	Reviewer:
Tax Year:	Amount:			
Timely Filed:	Yes ☐	No ☐	Date Completed:	

_____ _____ _____ _____

Administrative Assistant's Signature **Date** **Property Tax Administrator's Signature** **Date**

Land Characteristics

- Land Area: Acres 3x5 acres or Square footage _____
- Type of Road Access to Property 4x4 seasonal
  (e.g. paved, gravel, 4x4, etc.)
- County or City Maintained Road Yes _____ No X
- Topography (Level, Sloping, Steep) steep & require high clearance vehicle or SUV
- Other Characteristics (Answer T-True or F-False)
  - T Good View
  - T Southern Exposure
  - T Creek/Lake Frontage
  - F Access to Electricity
  - F Access to Natural Gas
- Additional Information About the Land:
  Avalanche Zone, no services available, no emergency response possible

Residential Property Characteristics

- Relative Condition Poor X Fair _____ Average _____ Good _____
- Square Footage of Finished Living Area 400
- Square Footage of Unfinished Living Area 100
- Square Footage of Basement Finished Ø Unfinished Ø
- Number of Bedrooms Ø Number of Bathrooms Ø
- Number of Car Spaces in Garage 1
- Type of Heat none # of Fireplaces Ø # of Woodstoves 1
- Additional Information About the Home:
  dilapitated mountain cabin w/ no services on R014921
  3 sided sheds, no services, no heat, dirt floors or raised platform floors

Commercial Property Characteristics

- Type of Commercial Building (retail, office, mixed, etc.) NONE needs to be reclassified
- 1st Floor Use _____ Square Feet _____
- 2nd Floor Use _____ Square Feet _____
- Basement Use _____ Square Feet _____
- Relative Condition Poor ✓ Fair _____ Average _____ Good _____

If Non-Owner Occupied:

- Number of Rentable Units: Commercial / Residential /
- Approximate Square Footage: Commercial / Residential /

If a current Owner's Income and Expense Statement is not on file, you may be asked to complete one.

- Additional Information About the Commercial Structure:
  Zero income available, never made money with the property. Only expense is upkeep and property taxes

Scott Dyer LFM Properties, LLC — **Property Owner**

R014921, R014922, R014923 — **Parcel Identifier** (Property Address, Parcel #, or Acct #)

2/10/2026

Scott Dugan
LFM Properties, LLC
PO Box 55,
Grant, CO 80448

Mrs Donna Gee
Clear Creek County Assessor

Mrs Gee,

I am submitting for your review an abatement protest for my three Clear Creek County properties which you will find in sequential order in the tax roll (R014921 Oceanic, R014922 Gaelic and R014923 Celtic). These are three properties that make up one larger property that we call High Camp. The properties together equal about 15 acres located 3.1 miles off of FR 119 which is accessed off of CR 62 (Guanella Pass Rd) in Park County.

I suspect that no physical inspection has been done on this property ever. It would take an 1.5 hours to get there from Georgetown including a sever 4x4 trip of about the last mile. If the determination was generated with Google maps or some variation or a square footage estimate then I believe this would be wholly inaccurate. The Gaelic property(R014922) is a camp with only 3 sided shelters (exibit A) that are is poor shape and have no heat, electricity or plumbing. The Oceanic property(R014921) is a 150 sq foot cabin in poor/fair condition with no heat, plumbing or electrical services. Further more, these are neither commercial properties and have never generated any income. No commercial sales tax have ever been collected for the use of these properties.

One final anecdotal story that may explain why these properties have always had a lower residential tax rate historically. In the mid 1990's our properties were continually vandalized and burglarized for campers and tourist venturing up CR 119 during the summer and fall tourist seasons. We would call the CCC Sheriff's department and after a week to 10 days they would send an officer to investigate. Not a very good response time by any civic standard. The then sheriff concluded that it was impossible to expect any type of police help to prevent crime in this remote area. I do not have any documentation to illustrate these police incidents but you can certainly understand both our frustration and law enforcements inability to help in this situation. I was not the owner of the property back then but I did work for the owner. I suspect he made a deal with the CCC BOCC and the Assessor to reduce the tax burden while collectively understanding that help from the CCC Sheriff would be unreasonable to expect. This is the way Colorado counties did business back in the not so distant past. A more logical attempt at compromise. Finally, I believe when I bought the property in 2011 it was misdescribed at

ccount Number	R014921		R014691		R007355		R017297
arcel Number	209133400012		208901400004		183730100002		183531101002
itus Address			9124 COLORADO 103		11913 US 40		84 SUNNY SKIES TRL
ity			IDAHO SPRINGS		EMPIRE		IDAHO SPRINGS
ale Date	—		06/13/2023		11/25/2023		09/08/2022
ale Price	—		$394,000		$250,000		$317,500
ale/Sq Ft	—						
ime Adj. Price	—		$394,000		$250,000		$317,500
ALUE ADJUST		DESCRIPTION	+(-)ADJUST	DESCRIPTION	+(-)ADJUST	DESCRIPTION	+(-)ADJUST
cres	4.97		$0		$0	3.578	$34,010
reek Front	false		$0		$0	false	$0
ocation Rating	LOCATION RATING - FAIR		$0		$0	LOCATION RATING - POOR	$0
roperty View	false		$0		$0	false	$0
oad Type	4-WHEEL		$0		$0	4-WHEEL	$0
oad Maintained	false		$0		$0	false	$0
outhern Exposure	false		$0		$0	false	$0
opog Front	TOPOGRAPHY FRONT - SLOPING		$0		$0	TOPOGRAPHY FRONT - SLOPING	$0
opog Mid	TOPOGRAPHY MIDDLE - SLOPING		$0		$0	TOPOGRAPHY MIDDLE - STEEP	$0
opog Back	TOPOGRAPHY BACK - STEEP		$0		$0	TOPOGRAPHY BACK - STEEP	$0
cres		0.165	$58,110	0.71	$35,050		$0
reek Front		true	$0	false	$0		$0
ocation Rating		LOCATION RATING - AVERAGE	$0	LOCATION RATING - AVERAGE	$0		$0
roperty View		true	$0	false	$0		$0
oad Type		4-WHEEL	$0	PRIMARY PAVED	$0		$0
outhern Exposure		true	$0	false	$0		$0
opog Front		TOPOGRAPHY FRONT - SLOPING	$0	TOPOGRAPHY FRONT - LEVEL	$0		$0
opog Mid		TOPOGRAPHY MIDDLE - STEEP	$0	TOPOGRAPHY MIDDLE - LEVEL	$0		$0
opog Back		TOPOGRAPHY BACK - STEEP	$0	TOPOGRAPHY BACK - LEVEL	$0		$0
FLA	550	600.0	($4,000)	1554	($80,320)	702	($12,160)
asement Finished			$0		$0		$0
Design	CABIN	CABIN	$0	CABIN	$0	CABIN	$0
Condition	CONDITION - FAIR	CONDITION - AVERAGE	($85,890)	CONDITION - FAIR	$0	CONDITION - AVERAGE	($85,890)
Bedrooms	2	0	$27,060	3	($13,530)	1	$13,530
Baths	0	0	$0	2	($12,680)	1	($6,340)
Spaces			$0		$0		$0
Quality	AVERAGE QUALITY	AVERAGE QUALITY	$0	AVERAGE QUALITY	$0	AVERAGE QUALITY	$0
Year Built	1977	1970	$0	1947	$0	1974	$0
Location Rating	FAIR	AVERAGE	$0	AVERAGE	$0	FAIR	$0
Base_Value			($67,520)		$0		($67,520)
Value	$182,200	—	—	—	—	—	—
Value/Sq Ft	$0	—	—	—	—	—	—
Adj. Sale Price	—	$321,760	($72,240)	$178,520	($71,480)	$193,130	($124,370)
Indicated/Sq Ft							

commercial because several of my properties were, in fact, commercial properties. It was never caught because the tax changes were slow to rise and much more realistic.

Please look at the previous tax documents that I have included in the abatement request (I could only farm data back to 2013 on the county website) and the photo/ video depictions of the properties. The current tax bill is so extreme that it will force me to sell this property if I cannot have a more reasonable tax obligation.

Thanks you for your attention to this matter,

Scott Dugan

LFM Properties, LLC

[redacted]

[Type the closing]


POSTED
NO TRESPASSING
KEEP OUT


Cabin 1


Chang

Cabin B

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Donna Gee, County Assessor
Subject: Abatement Request for Von Gunten Case Number 26-04

RECOMMENDATION
For case number 26-04, the Assessor recommends approval of petitioner's request for abatement or refund of taxes and for the Board to issue an order directing a refund of 2025 taxes in the amount of $1,826.00 and for 2024 taxes in the amount of $1,447.64 pro rata by all jurisdictions receiving payment thereof.

BACKGROUND
The property owner pulled a permit for an addition in 2021, When a site visit was done it appeared that the addition was completed. The property owner contacted the Assessor's office to advise that the addition was not completed.

ANALYSIS
Upon a closer review of the property, the Assessor agrees that the addition was not complete.

CONCLUSION
For 2024 and 2025, the Assessor recommends approval.

FISCAL IMPACT
The assessor will adjust the value from $803,440 to $411,620 for 2025 and from $545,330 to $268,040 for 2024 if approved.

ATTACHMENTS (If applicable)
1. Abatement

PETITION FOR ABATEMENT OR REFUND OF TAXES

26-04

County: Clear Creek

Date Received _____
(Use Assessor's or Commissioners' Date Stamp)

RECIVED
FEB 09 2026
CLEAR CREEK COUNTY
ASSESSOR OFFICE

Section I: Petitioner, please complete Section I only.

Date: February 3, 2026
Month Day Year

Petitioner's Name: Charles F. von Gunten

Petitioner's Mailing Address: 4314 Middlesex Drive

San Diego | CA | 92116
City or Town | State | Zip Code

SCHEDULE OR PARCEL NUMBER(S)	PROPERTY ADDRESS OR LEGAL DESCRIPTION OF PROPERTY
R007126	254 N. Main Street, Empire, CO 80438

Petitioner requests an abatement or refund of the appropriate taxes and states that the taxes assessed against the above property for property tax year(s) 2024 and 2025 are incorrect for the following reasons: (Briefly describe why the taxes have been levied erroneously or illegally, whether due to erroneous valuation, irregularity in levying, clerical error or overvaluation. Attach additional sheets if necessary.)

Approved plans for addition were never built, but attributed as built in tax assessment

Petitioner's estimate of value: $323,040 (2024) and $411,620 (2025)
Value Year Value Year

I declare, under penalty of perjury in the second degree, that this petition, together with any accompanying exhibits or statements, has been prepared or examined by me, and to the best of my knowledge, information and belief, is true, correct, and complete.

Charles F. von Gunten
Petitioner's Signature

[redacted]

By _____
Agent's Signature*

Daytime Phone Number (____) _____

Printed Name: _____ Email _____

*Letter of agency must be attached when petition is submitted by an agent.

If the Board of County Commissioners, pursuant to § 39-10-114(1), C.R.S., or the Property Tax Administrator, pursuant to § 39-2-116, C.R.S., denies the petition for refund or abatement of taxes in whole or in part, the Petitioner may appeal to the Board of Assessment Appeals pursuant to the provisions of § 39-2-125, C.R.S., within thirty days of the entry of any such decision, § 39-10-114.5(1), C.R.S.

Section II: Assessor's Recommendation
(For Assessor's Use Only)

	Tax Year 2025			Tax Year 2024		
	Actual	Assessed	Tax	Actual	Assessed	Tax
Original	803,440	106,860	3744.32	545,330	36,540	2818.30
Corrected	411,620	49,540	1918.32	268,040	17,960	1370.66
Abate/Refund			1,826.00			1,447.64

☒ **Assessor recommends approval as outlined above.**

If the request for abatement is based upon the grounds of overvaluation, no abatement or refund of taxes shall be made if an objection or protest to such valuation has been filed and a Notice of Determination has been mailed to the taxpayer, § 39-10-114(1)(a)(I)(D), C.R.S.

Tax year: _____ Protest? ☐ No ☐ Yes (If a protest was filed, please attach a copy of the NOD.)

Tax year: _____ Protest? ☐ No ☐ Yes (If a protest was filed, please attach a copy of the NOD.)

☐ **Assessor recommends denial for the following reason(s):**

Assessor's or Deputy Assessor's Signature

15-DPT-AR No. 920-66/16

FOR ASSESSORS AND COUNTY COMMISSIONERS USE ONLY
(Section III or Section IV must be completed)

Every petition for abatement or refund filed pursuant to § 39-10-114, C.R.S. shall be acted upon pursuant to the provisions of this section by the Board of County Commissioners or the Assessor, as appropriate, within six months of the date of filing such petition, § 39-1-113(1.7), C.R.S.

Section III: Written Mutual Agreement of Assessor and Petitioner

(Only for abatements up to $10,000)

The Commissioners of Clear Creek County authorize the Assessor by Resolution No. _____ to review petitions for abatement or refund and to settle by written mutual agreement any such petition for abatement or refund in an amount of $10,000 or less per tract, parcel, or lot of land or per schedule of personal property, in accordance with § 39-1-113(1.5), C.R.S.

The Assessor and Petitioner mutually agree to the values and tax abatement/refund of:

	Tax Year _____			Tax Year _____		
	Actual	Assessed	Tax	Actual	Assessed	Tax
Original						
Corrected						
Abate/Refund						

Note: The total tax amount does not include accrued interest, penalties, and fees associated with late and/or delinquent tax payments, if applicable. Please contact the County Treasurer for full payment information.

_____ _____
Petitioner's Signature **Date**

_____ _____
Assessor's or Deputy Assessor's Signature **Date**

Section IV: Decision of the County Commissioners

(Must be completed if Section III does not apply)

WHEREAS, the County Commissioners of _____ County, State of Colorado, at a duly and lawfully called regular meeting held on ____/____/____, at which meeting there were present the following members:
Month Day Year

_____

_____

with notice of such meeting and an opportunity to be present having been given to the Petitioner and the Assessor of said County and Assessor _____ ***(being present--not present)*** and
Name

Petitioner _____ ***(being present--not present)***, and WHEREAS, the said
Name

County Commissioners have carefully considered the within petition, and are fully advised in relation thereto, NOW BE IT RESOLVED, that the Board ***(agrees--does not agree)*** with the recommendation of the Assessor and the petition be ***(approved--approved in part--denied)*** with an abatement/refund as follows:

Year	Assessed Value	Taxes Abate/Refund	Year	Assessed Value	Taxes Abate/Refund

_____
Chairperson of the Board of County Commissioners' Signature

I, _____ County Clerk and Ex-officio Clerk of the Board of County Commissioners in and for the aforementioned county, do hereby certify that the above and foregoing order is truly copied from the record of the proceedings of the Board of County Commissioners.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said County this _____ day of _____, _____.
Month Year

_____
County Clerk's or Deputy County Clerk's Signature

Note: Abatements greater than $10,000 per schedule, per year, must be submitted in duplicate to the Property Tax Administrator for review.

Section V: Action of the Property Tax Administrator

(For all abatements greater than $10,000)

The action of the Board of County Commissioners, relative to this abatement petition, is hereby
☐ Approved ☐ Approved in part $_____ ☐ Denied for the following reason(s):

_____ _____ _____
Secretary's Signature Property Tax Administrator's Signature Date

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Donna Gee, County Assessor
Subject: Abatement Request for Uplifted Hospitality Case Number 26-05

RECOMMENDATION
For case number 26-05, the Assessor recommends approval of petitioner's request for abatement or refund of taxes and for the Board to issue an order directing a refund of 2025 taxes in the amount of $1,085.90 pro rata by all jurisdictions receiving payment thereof.

BACKGROUND
The property was purchased August 27, 2021 within our assessment period for $1,200,000. For commercial sales in 2025 the assessment period used sales that occurred July 1, 2019 through June 30, 2024.

ANALYSIS
The current value of the property is $1,277,590, which is within our statistical measurement of 1.05 - .95. The property owner is requesting the value to be that of the purchase price.

CONCLUSION
For 2025, the Assessor recommends approval.

FISCAL IMPACT
The assessor will adjust the value from $1,277,590 to $1,200,000 if approved.

ATTACHMENTS (If applicable)
1. Abatement

R004809

PETITION FOR ABATEMENT OR REFUND OF TAXES

County: Clear Creek

26-05

Section 1: Property Details **Date Received:** 12/01/2025

Date Completed:	02/17/2026
Owner Name:	Adam Schoonover
Owner Mailing Address:	PO Box 3336
Schedule/Parcel Number:	183536400216
Property Address/Legal Description:	2725 Colorado Blvd, Idaho Springs CO 80452

Section 2: Abatement or Refund Reason(s)

Property Tax Year: 2025	Petitioner Estimate of Value: $1,175,000
Reason for abatement or refund request:	Property needs more improvements to meet the value assessed and probably would not meet that price with a formal appraisal.

Section 3: Attestation

I declare, under penalty of perjury in the second degree, that this petition, together with any accompanying exhibits or statements, has been prepared or examined by me, and to the best of my knowledge is true and correct.

Print Name of Person Signing: Adam Schoonover

[redacted]

Signature: Adam Schoonover Date: 02/17/26

*Signing as: ■Owner ☐Agent *Letter of agency must be attached when petition is submitted by an agent.

Section 4: Assessor Recommendation (Assessor Use Only) **Check each box applicable if mixed use.**

Property Type: ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☑ Mixed-Use ☐ Other

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original	1,277,590			27.705/6.25	550,380	70.361	19336.90
Corrected	1,200,000			11	493,220	11	18251.00
Abated	-77,590				-57,160	Reduced	-1,085.90

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Assessor Recommendation:	Approve ☐	Deny ☐
Protest in Abatement/Refund Tax Year:*	No ☐	Yes ☐ (If a protest was filed, attach a copy of the NOD)
Reason for Denial Recommendation:		
Assessor or Deputy Assessor Signature:		Date:

Section 5: Mutual Agreement

The Commissioners of _____ County authorize the assessor by Resolution No._____ to review petitions for abatement or refund and to settle by written mutual agreement any such petition for abatement or refund in an amount of $_____ or less per tract, parcel, or lot of land or per schedule or personal property in accordance with § 39-1-113(1.5), C.R.S. The Petitioner and Assessor mutually agree with the values and taxes as outlined in Section 4 or in the table below.

Petitioner Signature:	Date:
Assessor or Deputy Assessor Signature:	Date:

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Section 6: Decision of the County Commissioners
(Must be completed if Section 5 does not apply)

The County Commissioners of _____ County, State of Colorado, held a meeting on __/__/__.
The following members were present:

_____

_____

Notice of the meeting and an opportunity to appear were given to the Petitioner ☐ **p** ☐ **not present**
and the County Assessor ☐ **p** ☐ **not present**

The Board of County Commissioners (BOCC) are fully advised and have considered the petition. The Board ☐ **agrees** ☐ **does not agree** with the recommendation of the Assessor. The petition has been ☐ **approved** ☐ **approved in part** ☐ **denied** with an abatement/refund as follows:

Year	Taxes Abate/Refund	**BOCC Chairperson's Signature**	**Date**

I, _____County Clerk and Ex-Officio Clerk of the Board of County Commissioners, do hereby certify that the above order is truly copied from the record of the proceedings of the Board of County Commissioners.

County Clerk's or Deputy County Clerk's Signature **Date**

Note: Abatements greater than $10,000 per schedule per year must be submitted in duplicate to the Property Tax Administrator for review.

Section 7: Action of the Property Tax Administrator

Division Review	Approved ☐	Denied ☐	Code:	Reviewer:
Tax Year:	Amount:			
Timely Filed:	Yes ☐	No ☐	Date Completed:	

Administrative Assistant's Signature **Date** **Property Tax Administrator's Signature** **Date**

306311 06/28/2022 08:41:00 AM B: 1032 P: 659 STATEMN
Page 1 of 1 R: $13.00 D: $0.00 T:$13.00
eRecorded in Clear Creek County, Colorado

THIS DOCUMENT MAY AFFECT YOUR LEGAL RIGHTS. LEGAL ADVICE SHOULD BE OBTAINED IN THE DRAFTING OF ANY LEGAL DOCUMENT.

STATEMENT OF AUTHORITY
(§38-30-172, C.R.S.)

1. This Statement of Authority relates to an entity[1] named
   UPLIFTED HOSPITALITY GROUP LLC

2. The type of entity is a:
   - ☐ corporation
   - ☐ nonprofit corporation
   - ☒ limited liability company
   - ☐ general partnership
   - ☐ limited partnership
   - ☐ registered limited liability partnership
   - ☐ registered limited liability limited partnership
   - ☐ limited partnership association
   - ☐ government or governmental subdivision or agency
   - ☐ trust
   - ☐

3. The entity is formed under the laws of COLORADO

4. The mailing address for the entity is PO Box 3336 Idaho Springs CO 80452

5. The ☒ name ☒ position of each person authorized to execute instruments conveying, encumbering or otherwise affecting title to real property on behalf of the entity is PAM WALTZ, MEMBER. CHRISTINE (AKA "CHRISTY") SCHOONOVER - MEMBER. ADAM SCHOONOVER - MEMBER.

6. The authority of the foregoing person(s) to bind the entity: ☒ is[2] not limited ☐ is limited as follows:

7. Other matters concerning the manner in which the entity deals with interests in real property:
   N/A

8. This Statement of Authority is executed on behalf of the entity pursuant to the provisions of §38-30-172, C.R.S.[3]

9. The Statement of Authority amends and supercedes in all respects any and all prior dated Statements of Authority executed on behalf of the entity.

Executed this 27 day of MAY, 2022

PAM WALTZ

CHRISTINE SCHOONOVER

ADAM SCHOONOVER

[1] This form should not be used unless the entity is capable of holding title to real property.
[2] The absence of any limitation shall be prima facie evidence that no such limitation exists.
[3] The statement of authority must be recorded to obtain the benefits of the statute.

Recording Requested by: N0037941
FNTG-NCS Colorado

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Donna Gee, County Assessor
Subject: Abatement Request for Little - Case Numbers 26-06

RECOMMENDATION
For case number 26-06, the Assessor recommends denial of petitioner's request for abatement or refund of taxes.

BACKGROUND
Every two years the Assessor's Office evaluates all property values based on the sales approach. The 2025 and 2026 values were set by sales that occurred July 1, 2022 through June 30, 2024. The property owner has challenged the value for the tax year.

ANALYSIS
The comparable sales support the value of the property.

CONCLUSION
After making the adjustments, the values ranged from $827,176 through $1,382,682 supporting the subject's value of $1,174,480.

ATTACHMENTS (If applicable)
1. Abatement, Land Characteristics and Comparable Sales

PETITION FOR ABATEMENT OR REFUND OF TAXES

RECIVED
FEB 19 2026
CLEAR CREEK COUNTY ASSESSOR OFFICE

County: Cleer Creek

Section 1: Property Details

Date Received: 2026

Date Completed:	2/19/2026
Owner Name:	Carl & Bettina Little
Owner Mailing Address:	38 Wilderness Pt Trl
Schedule/Parcel Number:	RO13954
Property Address/Legal Description:	38 Wilderness Pt Trl

RO13954

Section 2: Abatement or Refund Reason(s)

Property Tax Year: 2026	Petitioner Estimate of Value: $925,000
Reason for abatement or refund request: Property Value not a reflection of current market values, see enclosed Protest Form for details	

Section 3: Attestation

I declare, under penalty of perjury in the second degree, that this petition, together with any accompanying exhibits or statements, has been prepared or examined by me, and to the best of my knowledge is true and correct.

Print Name of Person Signing: Carl Little

[redacted]

Signature: Carl Little Date: 2/19/2026

*Signing as: ☐ Owner ☐ Agent *Letter of agency must be attached when petition is submitted by an agent.

Section 4: Assessor Recommendation (Assessor Use Only) **Check each box applicable if mixed use.**

Property Type: ☑ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Mixed-Use ☐ Other

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original	1,174,480			7.05/6.25	156,210	73.415	5,631.52
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Assessor Recommendation:	Approve ☐	Deny ☑
Protest in Abatement/Refund Tax Year:*	No ☑	Yes ☐ (If a protest was filed, attach a copy of the NOD)
Reason for Denial Recommendation: Comparable Sales Support Value		
Assessor or Deputy Assessor Signature:		Date: 2/22/16

Section 5: Mutual Agreement

The Commissioners of _____ County authorize the assessor by Resolution No._____ to review petitions for abatement or refund and to settle by written mutual agreement any such petition for abatement or refund in an amount of $_____ or less per tract, parcel, or lot of land or per schedule or personal property in accordance with § 39-1-113(1.5), C.R.S. The Petitioner and Assessor mutually agree with the values and taxes as outlined in Section 4 or in the table below.

Petitioner Signature:	Date:
Assessor or Deputy Assessor Signature:	Date:

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

	Actual	Value Adjustment	Adjusted Actual	Assessment Rate	Assessed Value	Mill Levy	Tax Amount
Original							
Corrected							
Abated							

Section 6: Decision of the County Commissioners
(Must be completed if Section 5 does not apply)

The County Commissioners of _____ County, State of Colorado, held a meeting on __/__/__. The following members were present:

_____

_____

Notice of the meeting and an opportunity to appear were given to the Petitioner ☐ **p** ☐ **not present** and the County Assessor ☐ **p** ☐ **not present**

The Board of County Commissioners (BOCC) are fully advised and have considered the petition. The Board ☐ **agrees** ☐ **does not agree** with the recommendation of the Assessor. The petition has been ☐ **approved** ☐ **approved in part** ☐ **denied** with an abatement/refund as follows:

Year	Taxes Abate/Refund	**BOCC Chairperson's Signature**	**Date**
_____	_____	_____	_____

I, _____County Clerk and Ex-Officio Clerk of the Board of County Commissioners, do hereby certify that the above order is truly copied from the record of the proceedings of the Board of County Commissioners.

_____ _____

County Clerk's or Deputy County Clerk's Signature **Date**

Note: Abatements greater than $10,000 per schedule per year must be submitted in duplicate to the Property Tax Administrator for review.

Section 7: Action of the Property Tax Administrator

Division Review	Approved ☐	Denied ☐	Code:	Reviewer:
Tax Year:	Amount:			
Timely Filed:	Yes ☐	No ☐	Date Completed:	

_____ _____ _____ _____

Administrative Assistant's Signature **Date** **Property Tax Administrator's Signature** **Date**

15-DPT-AR 920-66/26

Protests must be postmarked, emailed or delivered in person no later than June 9 @ 4:00 p.m.

Clear Creek County Assessor's Office
PO Box 2000, Georgetown, CO 80444
Phone: 303-679-2322 dgee@clearcreekcounty.us
Property Record Search: www.clearcreekcounty.us

2025 VALUATION APPEALS FORM

Appeal Date: 02/19/2026

Property Owner: Carl & Bettina Little
Mailing Address: 38 Wilderness Pt Trl
City, State, Zip: Evergreen, CO 80439
[redacted]

Property Address or Legal Description of Property being Appealed: 38 Wilderness Pt Trl, Evergreen CO 90439

Parcel or Account Number: RO13954

Valuation: Property values for the tax year 2025 have been determined using market sales data from the period of July 1, 2022 through June 30, 2024. Because the assessor can only consider valuation appeals, and not the actual level of taxes, we request that you state the reasons for believing that your property has been overvalued. Use additional paper if necessary.

Other similar properties have sold for less close to our house with similar sq. ft.

1) **600 Aspen Pl, Evergreen, CO 80439, 2,968 sq. ft, sold for $805,00, May 31, 2023** used
2) **4279 Witter Gulch Rd, Evergreen, CO 80439, 2626sq. ft., sold for $777,00, August 16, 2023** used
3) **649 Cottonwood Dr. Evergreen, CO 80439, 2962 sq. ft., sold for 849,00, Sept. 11, 2025**
4) **316 Patty Dr., Evergreen, CO 80439, 2,606 sq. ft., sold for 960,00, Dec. 2, 2025** out of assessment period
5) **1345 Witter Gulch Rd., Evergreen, CO 80439, 2,570 sq. ft, sold for $839,000**

Property Inventory: The assessor's office attempts to describe the various attributes of your property as accurately as possible. Please complete the appropriate sections so that our records can be verified and the appraiser can ascertain that a proper appraisal has been made.

Land **Characteristics**

- Land Area: Acres 2.0 or Square footage: 2,777
- Type of Road Access to Property: Paved
  (e.g. paved, gravel, 4x4, etc.)
- County or City Maintained Road Yes X No
- Topography (Level, Sloping, Steep) Sloping
- Other Characteristics (Answer T-True or F-False)

F Good View	T Access to Electricity
T Southern Exposure	T Access to Natural Gas
F Creek/Lake Frontage	

Additional Information About the Land:

_____

_____

Residential Property Characteristics

- Relative Condition Poor_____ Fair__X__ Average_____ Good_____
- Square Footage of Finished Living Area____2,641_____
- Square Footage of Unfinished Living Area__NA_____
- Square Footage of Basement Finished__700_____
- Unfinished___136_____
- Number of Bedrooms____4___ Number of Bathrooms____3.25____
- Number of Car Spaces in Garage_____

Type of Heat: Forced Air # of Fireplaces: 1 # of Woodstoves: 1

Additional Information About the Home:

1) The upper and lower decks are in bad shape
2) The southern exposure windows leak and fog up

_____

_____

_____

_____

_____

_____

Commercial Property Characteristics

- Type of Commercial Building (retail, office, mixed, etc.)_____

_____

- 1st Floor Use_____ Square
- Feet_____
- 2nd Floor Use_____ Square Feet_____
- Basement Use_____ Square

Feet_____

Relative Condition Poor_____ Fair_____ Average_____ Good_____

If Non-Owner Occupied:

- Number of Rentable Units: Commercial_____ Residential_____
- Approximate Square Footage: Commercial_____ Residential_____

If a current Owner's Income and Expense Statement is not on file, you may be asked to complete one.

- Additional Information About the Commercial Structure:

_____

_____

_____

_____

_____

_____

_____ _____

Signature of Owner **Date**

ACCOUNT NUMBER	**R013954**
PARCEL NUMBER	208502204009
TAX DISTRICT	060

Clear Creek County

P.O. BOX 2000
405 ARGENTINE STREET
GEORGETOWN, CO 80444

2025 PROPERTY TAXES DUE 2026

TAX AUTHORITY	TAX LEVY	TEMP TAX CREDIT	GENERAL TAX
CCC LIBRARY DISTRICT	3.00000	0.00000	$220.23
CCC GENERAL	26.03600	1.48000	$1,911.30
EVERGREEN FIRE DISTRICT	11.36500	0.00000	$834.31
CLEAR CREEK SCHOOL RE-1	19.98200	0.00000	$1,654.51
CCC ROAD & BRIDGE	5.44100	0.30900	$399.42
CCC OPEN SPACE	0.94600	0.05400	$69.45
CCC PUBLIC WELFARE	0.84200	0.04800	$61.81
CCC ROAD PROJECT	0.00000	0.00000	$0.00
SCHOOL DIST RE1 BOND	5.80300	0.00000	$480.49
EVERGREEN FIRE PROTECTION	0.00000	0.00000	$0.00
TOTALS	73.4150000		$5,631.52
SENIOR EXEMPTION			$479.46
GRAND TOTAL			$5,152.06

SB 25 - In absence of State Legislative Funding, your school mill levy would have been 20.6710

VALUATION

PURSUANT TO C.R.S. § 39-10-103, PROPERTY VALUE INFORMATION IS AVAILABLE FROM THE ASSESSOR'S OFFICE.

PHONE: 303-679-2322
EMAIL: DGEE@CLEARCREEKCOUNTY.US

SPECIAL MESSAGES

TREASURER'S OFFICE
PHONE: 303-679-2353
EMAIL: CLEE@CLEARCREEKCOUNTY.US

Unpaid Prior Year Taxes

No

Late payments without applicable interest will be returned.

PROPERTY ADDRESS AND LEGAL DESCRIPTION OF PROPERTY (may be incomplete)

38 WILDERNESS POINT TRL
Subdivision: WILDERNESS POINT Lot: 8 F1 & IMPS

2025 Taxes Due 2026 2nd Half Payment Due June 15

Return this Coupon with Payment to:
Clear Creek County Treasurer
PO Box 2000
405 Argentine Street
Georgetown, CO 80444

CURRENT BILLING ADDRESS

LITTLE BETTINA M & CARL S LITTLE
38 WILDERNESS PT
EVERGREEN CO 80439-4367

Account Number
R013954

For a receipt provide SAS envelope with payment

SECOND HALF DUE BY JUNE 15, 2026 $2,576.03

2025 Taxes Due 2026 1st Half Due Feb 28 OR Full Payment Due April 30

Return this Coupon with Payment to:
Clear Creek County Treasurer
PO Box 2000
405 Argentine Street
Georgetown, CO 80444

CURRENT BILLING ADDRESS

LITTLE BETTINA M & CARL S LITTLE
38 WILDERNESS PT
EVERGREEN CO 80439-4367

Account Number
R013954

5 1 2236

For a receipt provide SAS envelope with payment

FULL PAYMENT DUE BY APRIL 30, 2026 $5,152.06
FIRST HALF DUE BY FEBRUARY 28, 2026 $2,576.03

ACCOUNT NUMBER	**R013954**
PARCEL NUMBER	208502204009
TAX DISTRICT	060

(303) 679-2353
www.clearcreekcounty.us
clee@clearcreekcounty.us

Clear Creek County

P.O. BOX 2000
405 ARGENTINE STREET
GEORGETOWN, CO 80444

2024 PROPERTY TAXES DUE 2025

TAX AUTHORITY	TAX LEVY	TEMP TAX CREDIT	GENERAL TAX
CCC LIBRARY DISTRICT	3.00000	0.00000	$171.75
CCC GENERAL	27.51600	0.00000	$1,575.29
EVERGREEN FIRE DISTRICT	11.46300	0.00000	$656.26
CLEAR CREEK SCHOOL RE-1	21.19300	0.00000	$1,213.30
CCC ROAD & BRIDGE	5.75000	0.00000	$329.19
CCC OPEN SPACE	1.00000	0.00000	$57.25
CCC PUBLIC WELFARE	0.89000	0.00000	$50.95
CCC ROAD PROJECT	0.00000	0.00000	$0.00
SCHOOL DIST RE1 BOND	6.94100	0.00000	$397.37
EVERGREEN FIRE PROTECTION	0.00000	0.00000	$0.00
TOTALS	77.7530000		$4,451.36
SENIOR EXEMPTION			$520.94
GRAND TOTAL			$3,930.42

VALUATION	ACTUAL	ASSESSED
Land	$148,910	$9,980
Building/Improve	$705,480	$47,270
Personal	$0	$0
Total	$854,390	$57,250
Sr/Vet Exemption	$100,000	$6,700
Net Total	$754,390	$50,550

SPECIAL MESSAGES

PLEASE PROVIDE
PHONE OR EMAIL

SB 25 - In absence of State Legislative Funding, your school mill levy would have been 20.9600

Unpaid Prior Year Taxes

No

Late payments without applicable interest will be returned.

PROPERTY ADDRESS AND LEGAL DESCRIPTION OF PROPERTY (may be incomplete)

38 WILDERNESS POINT TRL
Subdivision: WILDERNESS POINT Lot: 8 F1 & IMPS

2024 Taxes Due 2025 2nd Half Payment Due June 15

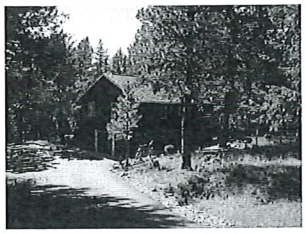
Return this Coupon with Payment to:
Clear Creek County Treasurer
PO Box 2000
405 Argentine Street
Georgetown, CO 80444

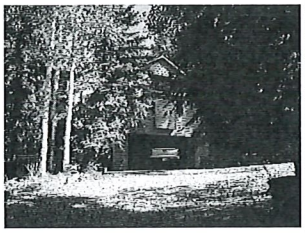
CURRENT BILLING ADDRESS

LITTLE BETTINA M & CARL S LITTLE
38 WILDERNESS PT
EVERGREEN CO 80439-4367

Account Number
R013954

For a receipt provide SAS envelope with payment

							
Account Number	**R013954**	**Comparable: R014039**		**Comparable: R013493**		**Comparable: R013697**	
Parcel Number	**2085-022-04-009**	**2085-024-02-007**		**1963-273-02-011**		**1963-352-01-073**	
Situs Address	**38 WILDERNESS POINT TRL**	**176 COTTONWOOD DR**		**4279 WITTER GULCH RD**		**600 ASPEN PL**	
City	EVERGREEN	EVERGREEN		EVERGREEN		EVERGREEN	
Sale Date		10/12/2023		08/16/2023		05/31/2023	
Sale Price		$1,080,000		$777,000		$805,000	
Sale/SqFt							
Time Adj. Price		$1,080,000		$777,000		$805,000	
VALUE ADJUST		**DESCRIPTION**	**+(-)ADJUST**	**DESCRIPTION**	**+(-)ADJUST**	**DESCRIPTION**	**+(-)ADJUST**
Acres	2	1.04	($1,460)	1.9	$12,950	1.04	$17,140
Creek Front	false	false	$0	false	$0	false	$0
Location Rating	LOCATION RATING - AVERAGE	LOCATION RATING - AVERAGE	$0	LOCATION RATING - AVERAGE	$0	LOCATION RATING - AVERAGE	$0
Property View	false	true	$0	true	$0	false	$0
Road Type	SECONDARY GRAVEL	SECONDARY GRAVEL	$0	SECONDARY GRAVEL	$0	SECONDARY GRAVEL	$0
Southern Exposure	true	true	$0	false	$0	false	$0
Topog Front	TOPOGRAPHY FRONT - SLOPING	TOPOGRAPHY FRONT - SLOPING	$0	TOPOGRAPHY FRONT - SLOPING	$0	TOPOGRAPHY FRONT - SLOPING	$0
Topog Mid	TOPOGRAPHY MIDDLE - SLOPING	TOPOGRAPHY MIDDLE - SLOPING	$0	TOPOGRAPHY MIDDLE - SLOPING	$0	TOPOGRAPHY MIDDLE - SLOPING	$0
Topog Back	TOPOGRAPHY BACK - SLOPING	TOPOGRAPHY BACK - SLOPING	$0	TOPOGRAPHY BACK - STEEP	$0	TOPOGRAPHY BACK - SLOPING	$0
SFLA	1941	1553	$70,616	1668	$49,686	1772	$30,758
Basement Finished	700	1025	($28,925)	840	($12,460)	598	$9,078
Design	MOUNTAIN CONTEMPORARY	TRADITIONAL	$210,360	MOUNTAIN CONTEMPORARY	$0	TRADITIONAL	$210,360
Condo Age	AVERAGE CONDITION	GOOD CONDITION	($63,300)	AVERAGE CONDITION	$0	AVERAGE CONDITION	$0
Bedrooms	4	3	$0	4	$0	4	$0
Baths	3.5	2	$0	3	$0	3.75	$0
Spaces	2	2	$0	2	$0	2	$0
Quality	AVERAGE QUALITY	AVERAGE QUALITY	$0	AVERAGE QUALITY	$0	AVERAGE QUALITY	$0
Year Built	1991	1978	$0	1987	$0	1985	$0
Location Rating	AVERAGE	AVERAGE	$0	AVERAGE	$0	AVERAGE	$0
Value	**$1,174,480**						
Value/Sqft	**$0**						
Adjusted Sale		**$1,267,291**	**$187,291**	**$827,176**	**$50,176**	**$1,072,336**	**$267,336**
Indicated/SqFt							

							
Account Number	**R013954**	**Comparable: R014029**		**Comparable: R013930**		**Comparable: R013975**	
Parcel Number	**2085-022-04-009**	**2085-024-01-092**		**2085-021-03-024**		**2085-024-01-004**	
Situs Address	**38 WILDERNESS POINT TRL**	**433 MARY BETH RD**		**900 WITTER GULCH RD**		**512 MARY BETH RD**	
City	EVERGREEN	EVERGREEN		EVERGREEN		EVERGREEN	
Sale Date		08/14/2023		04/24/2023		08/03/2022	
Sale Price		$1,150,000		$942,300		$1,297,500	
Sale/SqFt							
Time Adj. Price		$1,150,000		$942,300		$1,297,500	
VALUE ADJUST		**DESCRIPTION**	**+(-)ADJUST**	**DESCRIPTION**	**+(-)ADJUST**	**DESCRIPTION**	**+(-)ADJUST**
Acres	2	8.48	$6,250	1.61	$16,280	2.209	($3,210)
Creek Front	false	false	$0	false	$0	false	$0
Location Rating	LOCATION RATING - AVERAGE	LOCATION RATING - AVERAGE	$0	LOCATION RATING - AVERAGE	$0	LOCATION RATING - AVERAGE	$0
Property View	false	false	$0	false	$0	true	$0
Road Type	SECONDARY GRAVEL	SECONDARY GRAVEL	$0	PRIMARY GRAVEL	$0	SECONDARY GRAVEL	$0
Southern Exposure	true	false	$0	false	$0	true	$0
Topog Front	TOPOGRAPHY FRONT - SLOPING	TOPOGRAPHY FRONT - STEEP	$0	TOPOGRAPHY FRONT - LEVEL	$0	TOPOGRAPHY FRONT - SLOPING	$0
Topog Mid	TOPOGRAPHY MIDDLE - SLOPING	TOPOGRAPHY MIDDLE - SLOPING	$0	TOPOGRAPHY MIDDLE - STEEP	$0	TOPOGRAPHY MIDDLE - SLOPING	$0
Topog Back	TOPOGRAPHY BACK - SLOPING	TOPOGRAPHY BACK - STEEP	$0	TOPOGRAPHY BACK - STEEP	$0	TOPOGRAPHY BACK - SLOPING	$0
SFLA	1941	2195	($46,228)	1952	$2,002	2232	($52,962)
Basement Finished	700		$62,300	726	($2,310)	2260	($138,840)
Design	MOUNTAIN CONTEMPORARY	TRADITIONAL	$210,360	MOUNTAIN CONTEMPORARY	$0	MOUNTAIN CONTEMPORARY	$0
Condo Age	AVERAGE CONDITION	AVERAGE CONDITION	$0	AVERAGE CONDITION	$0	GOOD CONDITION	($63,300)
Bedrooms	4	3	$0	3	$0	6	$0
Baths	3.5	3	$0	3	$0	6	$0
Spaces	2	3	$0	2	$0	3	$0
Quality	AVERAGE QUALITY	AVERAGE QUALITY	$0	AVERAGE QUALITY	$0	AVERAGE QUALITY	$0
Year Built	1991	1980	$0	1993	$0	1994	$0
Location Rating	AVERAGE	AVERAGE	$0	AVERAGE	$0	AVERAGE	$0
Value	**$1,174,480**						
Value/Sqft	**$0**						
Adjusted Sale		**$1,382,682**	**$232,682**	**$958,272**	**$15,972**	**$1,039,188**	**($258,312)**
Indicated/SqFt							

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
Ronald Thornton, Sheriff
From: Clarissa Boggs-Blake, Director of the Office of Emergency Management
Subject: Work Session: Fire Restrictions Implementation

RECOMMENDATION

The Clear Creek County Office of Emergency Management (OEM), the Clear Creek Fire Authority (CCFA), and the Clear Creek County Sheriff's Office (CCSO) recommends that the Board of County Commissioners (BOCC) acknowledge and support the CCSO's plan to implement and rescind County-wide fire restrictions response measures more fluidly during off-fire seasons, based on real-time fire weather conditions and risk indicators.

Under this approach, when any portion of the County is placed under a Red Flag Warning, which represents high fire danger, the entire County would move into Stage 1 Fire Restrictions until midnight of the day the Red Flag Warning expires. This recommendation aligns with the best regional practices and improves the County's ability to respond rapidly to changing fire risk conditions.

BACKGROUND

Clear Creek County experiences highly variable weather, fuel moisture, and wind conditions throughout the year, including outside of traditional wildfire seasons. These conditions can rapidly elevate fire risk and create public safety concerns.

Historically, fire restrictions have been implemented through a formal and time-intensive process, which can limit the County's ability to respond effectively to short-duration or rapidly developing high-risk conditions.

To address this issue, a meeting was convened with representatives from the County Attorney's Office, County Manager's Office, Clear Creek County Sheriff's Office, Clear Creek County Office of Emergency Management, and Clear Creel Fire Authority. All parties agreed that, while CCSO has clear operational authority to move in and out of fire restrictions, applying greater intentionality and consistency through established risk indicators will improve responsiveness, enhance public safety outcomes, and increase overall operational efficiency.

Comparable approaches are currently in use by neighboring jurisdictions, including the Jefferson County Sheriff's Office and the Gilpin County Sheriff's Office.

ANALYSIS

This approach provides the Clear Creek County Sheriff's Office with increased operational flexibility to respond quickly to changing fire weather conditions and localized risk indicators. By allowing restrictions to be implemented immediately when Red Flag Warnings are issued, the CCSO can reduce delays associated with more formalized processes. This framework also supports the timely removal of restrictions when conditions improve. Applying restrictions County-wide when any area presents elevated risk promotes consistency, reduces public confusion, and strengthens coordinated enforcement and messaging.

Board Agenda Background

The County Attorney's Office and County Manager's Office have reviewed this operational approach and determined that it can be implemented within existing legal and administrative authority. No ordinance changes or additional legislative actions are required at this time, allowing the County to move forward efficiently while remaining compliant with applicable laws and policies.

Public communication will be a critical component of successful implementation. The proposed approach includes posting notices at the County Administration Building, using social media platforms, updating key roadside signage as deputies are available, and coordinating messaging with partner agencies and Public Information Officers. This multi-channel strategy will help ensure residents, visitors, and stakeholders receive timely, clear, and consistent information regarding restrictions.

Adopting this framework also promotes regional consistency with neighboring jurisdictions that utilize dynamic fire restriction models. Aligning with surrounding counties supports public understanding and compliance, particularly for residents and visitors who regularly travel across county lines. Consistent practices reduce uncertainty and enhance cooperative enforcement efforts.

From a risk management and public safety perspective, this model reduces the likelihood of human-caused wildfire ignitions, enhances responder safety, supports early intervention, and limits community exposure during extreme fire weather. By enabling early and decisive action, the County can reduce the potential for large-scale incidents, minimize operational strain on emergency services and lower long-term recovery and suppression costs.

CONCLUSION

Providing the Clear Creek County Sheriff's Office with clear authority to implement and rescind fire restrictions in real time represents a proactive, risk-based approach to wildfire and emergency management.

This framework improves responsiveness to changing conditions, enhances public safety, aligns with regional best practices, and reflects the consensus of County leadership, legal counsel, and fire partners. It requires no additional legislative action and can be implemented using existing resources and communication channels.

Staff recommend that the Board acknowledge and support this operational approach as an effective tool for protecting residents, visitors, and first responders during periods of elevated fire risk.

ATTACHMENTS:

1. Ordinance No. 16 - Banning of Open Fires
2. Resolution R-01-83 - Resolution Invoking the Clear Creek County Sheriff to Implement and Lift Fire Bans in Clear Creek County

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Page 1 of 5 R $0.00 D $0.00 T $0.00 Clear Creek

ORDINANCE NO. 16

AN ORDINANCE PROVIDING FOR THE BANNING OF OPEN FIRES BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF CLEAR CREEK, COLORADO

WHEREAS, the Board of County Commissioners of Clear Creek, State of Colorado (hereinafter referred to as "The Board"), desires to regulate intentional outdoor fires in Clear Creek County; and

WHEREAS, pursuant to C.R.S. § 30-15-401(1)(n.5), the Board is authorized to ban open fires to a degree that is necessary to reduce the danger of wildfires within those portions of the unincorporated areas of the county where the danger of forest or grass fires is found to be high; and

WHEREAS, pursuant to C.R.S. § 30-15-402, the Board has the authority to impose penalties in violation of an ordinance adopted pursuant to C.R.S. § 30-15-401(1)(n.5); and

WHEREAS, the Board is responsible for determining the level of open fire ban that is necessary to prevent wildfires as required by law; and

WHEREAS, the Board adopted Resolution R-01-83 authorizing the Clear Creek County Sheriff to declare and revoke fire bans; and

WHEREAS, the Board desires to appoint the County Sheriff as the person with primary responsibility for determining when and to what extent a fire ban is appropriate, based on consultation with appropriate agencies in the community; and

WHEREAS, The Board exercised its authority on this subject by enacting/adopting Ordinance No. 8 on June 25, 2002; and

WHEREAS, thereafter, the General Assembly of the state of Colorado enacted laws affecting the manner of enforcement, and the penalties for violations, of county ordinances and regulations, specifically SB21-271 and HB22-1229; and

WHEREAS, the County Attorney recommends that Ordinance No. 8 be amended to comply with this legislation, by amending the enforcement provisions; specifically by rescinding Ordinance No. 8 and re-enacting it, as amended, as Ordinance No. 16, both actions to be effective simultaneously;

WHEREAS, it is in the interest of public health, safety and welfare that open fires be regulated by the Board or the Board's designee.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF CLEAR CREEK, COLORADO AS FOLLOWS:

Section 1. Legislative Declaration.

The Board of County Commissioners of Clear Creek County, State of Colorado, hereby declares that open fires can be dangerous under certain conditions and are a matter of local and public concern and that in order to protect the public health, safety, welfare and natural resources of Clear Creek County it is necessary to control open fires in unincorporated areas.

Section 2. Definitions.

A. (1) "Open Fire" means any fire outdoors for any purpose, including, but not limited to, bonfires, campfires, charcoal or wood barbeques; lighting off fireworks of any kind, trash or rubbish burning, smoking and lawn, weed, ditch or crop burning.

(2) "Open Fire" does not mean propane or natural gas barbeque or liquid fuel stove if it is attended at all times and is in a fully enclosed, covered barbeque grill or is contained within a liquid fuel stove.

Section 3. Procedures.

A. On its own motion, the Board may open a hearing on the issue of a fire ban in the unincorporated areas of Clear Creek County;

B. The Clear Creek County Sheriff is empowered to invoke or lift a fire ban for unincorporated areas of Clear Creek County. The Clear Creek County Sheriff shall consult with appropriate authorities, including, but not limited to, local fire districts, the Board, State Forester, and the U.S. Forest Service, in making the decision to invoke or lift a fire ban.

C. If the period of time that a fire ban shall be in effect was not specified in the declaration of the fire ban, the Board shall thereafter from time-to-time review the continuing need for such a ban, based on consultation with the County Sheriff and appropriate agencies, to determine when the fire ban shall expire.

D. Pursuant hereto, the Board or County Sheriff shall limit Open Fires in any manner and to any extent deemed necessary or appropriate to reduce the danger of wildfire.

E. All bans shall describe the manner and extent of such a ban, provided that if there is no limitation included in the ban, the ban will be deemed to be a ban of all Open Fires, applicable everywhere in unincorporated Clear Creek County.

Section 4. Open Fires Prohibited in Unincorporated Areas.

If the Board or the County Sheriff determines that an Open Fire Ban shall be in effect in Clear Creek County, no person shall build, maintain, attend or use an Open Fire as prohibited by

that particular fire ban on any private or public land in unincorporated Clear Creek County.

Section 5. Exemptions

The following persons and acts shall be exempt from any fire ban:

A. Persons with a valid written permit from the Clear Creek County Sheriff based on his consideration of the risks, time and location of the fire, fire hazard mitigation to be used, and safety measures to be taken during the event.

B. Any federal, state, or local officer or member of an organized rescue or firefighting force in the performance of an official duty.

C. Burning of irrigation ditches located within and completely surrounded by irrigated farmlands, where such burning is necessary for crop survival, and a specific written permit has been granted by the Clear Creek County Sheriff.

D. A federal agency or the Clear Creek County Sheriff.

Section 6. Posting.

If a Fire Ban is invoked or lifted pursuant to this Ordinance, notice of a fire ban, or lifting thereof, will be posted at the following locations:

A. Outside of the Commissioners' Hearing room at the Clear Creek County Courthouse; and
B. In the lobby of the Courthouse; and
C. At the entrance to the Sheriff's Department; and
D. Along roads and other places as the County Sheriff may determine to be appropriate.

In addition to the posting, local newspapers, local radio, local cable access channels and community agencies (including, but not limited to, CDOT, Colorado State Forester, Clear Creek County Fire Authority, local fire protection districts, U.S. Forest Service) shall be informed when a fire ban is invoked or lifted.

Section 7. Penalties.

A. Any person who violates any provision of this Ordinance commits a civil infraction and shall be punished by a fine of not less than fifty dollars ($50.00) and not more than one thousand dollars ($1,000.00) for each separate violation; provided that the fine for the second or subsequent offense during any 24 month period shall be not less than five hundred dollars ($500.00).

B. Surcharges as required by law, including pursuant to C.R.S. § 30-15-402(2), shall also be assessed and paid in accordance with the statutes imposing the surcharges.

C. Any person having the authority and responsibility to enforce the ordinances of Clear Creek County and having knowledge of any violation of the rules and regulations stated herein may use the Penalty Assessment Procedure defined under § 16-2- 201, C.R.S., as amended, by issuing the violator a penalty assessment notice and releasing the violator upon its terms or, as the law allows, by taking the violator before a county court judge. The penalty assessment notice shall be a summons and complaint and shall contain the identification of the offender, the specification of the offense, and the applicable fine.

Section 8. Effective Date.

The Board of County Commissioners of Clear Creek County finds that this Ordinance is necessary to the immediate preservation of the public health and safety because of the drought and extreme fire hazards existing in the County and the State, and, therefore, hereby adopts the Clear Creek County Fire Ban Policy as set forth in this Ordinance effective immediately upon signing of this Ordinance.

INTRODUCED, FIRST READ, ORDERED PUBLISHED IN FULL AND SET FOR PUBLIC HEARING THIS 10th DAY OF Jan, 2023.

BOARD OF COUNTY COMMISSIONERS
CLEAR CREEK COUNTY, COLORADO

Randall Wheelock, Chairman

George Marlin, Commissioner

Sean C. Wood, Commissioner

ATTEST:

Deputy Clerk and Recorder
for Brenda L. Corbett
Clear Creek County Clerk and Recorder

CERTIFICATION: THE FOREGOING ORDINANCE WAS INTRODUCED AND READ ON JANUARY 10, 2022, BY THE BOARD OF COUNTY COMMISSIONERS OF CLEAR CREEK COUNTY, COLORADO, AND APPROVED FOR PUBLICATION.

DATE OF PUBLICATION: 1/19/2023

E.A. Luther, Deputy Clerk & Recorder
Clear Creek County

308667 02/16/2023 11:06 AM B: 1041 P: 541 ORDIN
Page 5 of 5 R $0.00 D $0.00 T $0.00 Clear Creek

READ, PASSED, AND ADOPTED AFTER PUBLIC HEARING AND ORDERED PUBLISHED BY TITLE ONLY THIS 7th DAY OF February, 2023.

BOARD OF COUNTY COMMISSIONERS
CLEAR CREEK COUNTY, COLORADO

Randall Wheelock/ext
Randall Wheelock, Chairman

George Marlin/ext
George Marlin, Commissioner

Sean C. Wood
Sean C. Wood, Commissioner

ATTEST:

Deputy Clerk and Recorder
for Brenda L. Corbett
Clear Creek County Clerk and Recorder

CERTIFICATION: THE FOREGOING ORDINANCE WAS CONSIDERED AT PUBLIC HEARING ON February 7, 2023, AND ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS EFFECTIVE THE 7th DAY OF February, 2023.

DATE OF SECOND PUBLICATION: 2/16/2023

Beth Luther
Deputy Clerk & Recorder
Clear Creek County

207134 06/27/2001 02:52P B618 P24 RESOLUTN
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R-01-83

RESOLUTION INVOKING THE CLEAR CREEK COUNTY SHERIFF TO IMPLEMENT AND LIFT FIRE BANS IN CLEAR CREEK COUNTY

WHEREAS, the Board of County Commissioners of Clear Creek County has authority under the provisions of C.R.S. 30-11-107 (County Powers) and pursuant to the provisions of C.R.S. 30-15-401 to do and to make all acts and to make all regulations which may be necessary or expedient for the promotion of health and welfare of its citizens of Clear Creek County, and to ban open fires to a degree and in a manner that the Board of County Commissioners deems necessary to reduce the danger of wild fires within those portions of unincorporated areas of the County where danger of forest or grass fires is found to be high; and

WHEREAS, the Sheriff of Clear Creek County is empowered under the provisions of C.R.S. 30-10-153 to assume charge and assist governmental authority in an emergency for controlling and extinguishing forest or prairie fires; and

WHEREAS, if the Board of County Commissioners finds that based upon competent evidence the danger of wild fires within Clear Creek County is high and this is verbally agreed upon with the Sheriff of Clear Creek County; and

NOW THEREFORE BE IT RESOLVED, that the Board of County Commissioners of Clear Creek County invokes the Clear Creek County Sheriff to implement and lift fire bans in Clear Creek County for the protection of the health and welfare of Clear Creek County citizens. The Sheriff of Clear Creek County is hereby directed to assume his statutory duties under the provisions of C.R.S. 30-15-516 and all other authority granted to the Sheriff.

ADOPTED, this 27th day of June, 2001 at a regularly scheduled meeting of the Clear Creek Board of County Commissioners.

Robert J. Poirot, Chairman

Jo Ann Sorensen, Commissioner

Fabyan Watrous, Commissioner

APPROVED AS TO FORM:

County Attorney Bob Loeffler

ATTEST:

Deputy Clerk and Recorder

Board Agenda Background

Date: 3/17/2026
To: Board of County Commissioners
Through: Colton Rohloff, County Manager
From: Alexis Sohlden, Public Lands Manager
Subject: Work Session: Letter of Support for Clear Bear Fire Mitigation Plan with USFS Forest Service

---

BACKGROUND

The Clear Creek Ranger District of the Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP) has identified a need to reduce the risk of uncharacteristic fire behavior and severity in dry montane, fire-adapted conifer forests that adjoin and intermix with private lands. The project focuses on fire mitigation within strategic, fire-suppressed ponderosa pine and dry mixed-conifer forests, addressing a high-priority need supported by broad scientific consensus.

The specific goals of the project are to:

- Promote and enhance community readiness for wildfire by improving ingress/egress and suppression opportunities along key strategic features;
- Increase forest resiliency by minimizing large tree mortality during unplanned wildfires through the reduction of potential fire behavior and fire severity; and,
- Address the hazards created by mountain pine beetle-caused tree mortality to firefighters and the public.

The primary strategy will be to use treatments that reduce or maintain the surface, ladder, and canopy fuels (in that order of importance) while retaining the largest, most fire-resistant trees. Supporting and secondary goals include:

- Timber stand improvement to increase individual tree vigor and reduce the threat of insect and disease; and,
- Restoring the natural role of fire within fire-adapted forests.

The Clear Bear Wildfire Resiliency Project was identified in the ARP's FY 2026 Greenlight Letter as 'Clear Creek Community Wildfire Protection Plan/Defensible Space Categorical Exclusion (CE)' as a high-priority project due to its alignment with agency priorities regarding the improvement of forest health through active management (Timber and Fuels).

Identified partners include:

- Clear Creek County Fire Authority
- Clear Creek County Open Space
- Clear Creek Watershed Forest Health Partnership
- Colorado State Forest Service
- Denver Water
- Jefferson County
- Lookout Mountain Water
- Upper South Platte Partnership
- Xcel Energy

Board Agenda Background

The proposed actions are consistent with the Forest Plan and with the Clear Creek and Jefferson Counties' Community Wildfire Protection Plans.

ANALYSIS

The Clear Bear Wildfire Resiliency Project is in Clear Creek and Jefferson County within the Clear Creek Ranger District. The northern part of the project area is adjacent to the community of Pine Valley, just north of Beaver Brook Reservoir, bounded by Beaver Brook Canyon Road to the north and Beaver Brook Trail to the south. Clear Creek County Open Space, USFS, Colorado State Forest Service, and Lookout Mountain Water District all own and manage property that is in this proposed project area. Clear Creek County Open Space's parcels total approximately 50 acres.

Proposed Action

Project actions include manual cutting, yarding, piling of slash, and prescribed fire (pile burning, jackpot burning, and broadcast burning). Activities will focus on the removal of surface, ladder, and canopy fuels (in that order of importance) while retaining the largest, most fire-resistant trees. After the initial treatment, follow-up actions to maintain desired conditions are anticipated at two intervals:

- 1-5 years after initial treatment to address blowdown and hazard trees; and,
- 10-15 years after completion to maintain initial treatment efficacy.

The overall project duration, including maintenance, is estimated at 15–20 years. Initial implementation is anticipated to begin in Summer/Fall 2027, subject to USFS priorities and funding.

Equipment Usage

Equipment includes chainsaws, drip torches, vehicles, UTVs/ATVs, and hand tools. Chainsaws, drip torches, and hand tools will be transported to the project site and staged off-site in approved storage facilities. During prescribed fire operations, vehicles and UTVs/ATVs may be staged near the project area overnight.

Ground Disturbance

Ground disturbance is anticipated to be temporary and includes manual yarding of material, piling, and prescribed fire, both pile burning and broadcast burning. Yarding would be by hand, i.e., dragging material by hand to a pile. Prescribed fire will occur across most of the project footprint, but burning is typically patchy in nature with scattered, unburned pockets.

County Considerations

The Clear Bear Wildfire Resiliency Project directly interfaces with private lands, County roads, County lands, recreational access points, and municipal watershed areas. Given the location within intermix zones and near developed communities, coordination with Clear Creek County departments will be necessary.

Board Agenda Background

CONCLUSION

This memorandum is intended to provide the Board of County Commissioners with a briefing regarding the initiation of the Clear Bear Wildfire Resiliency Project by the USFS. Staff seeks direction from the Board regarding the desired level of County engagement during the scoping and implementation process and whether formal comment or coordination efforts should be initiated.

ATTACHMENTS:

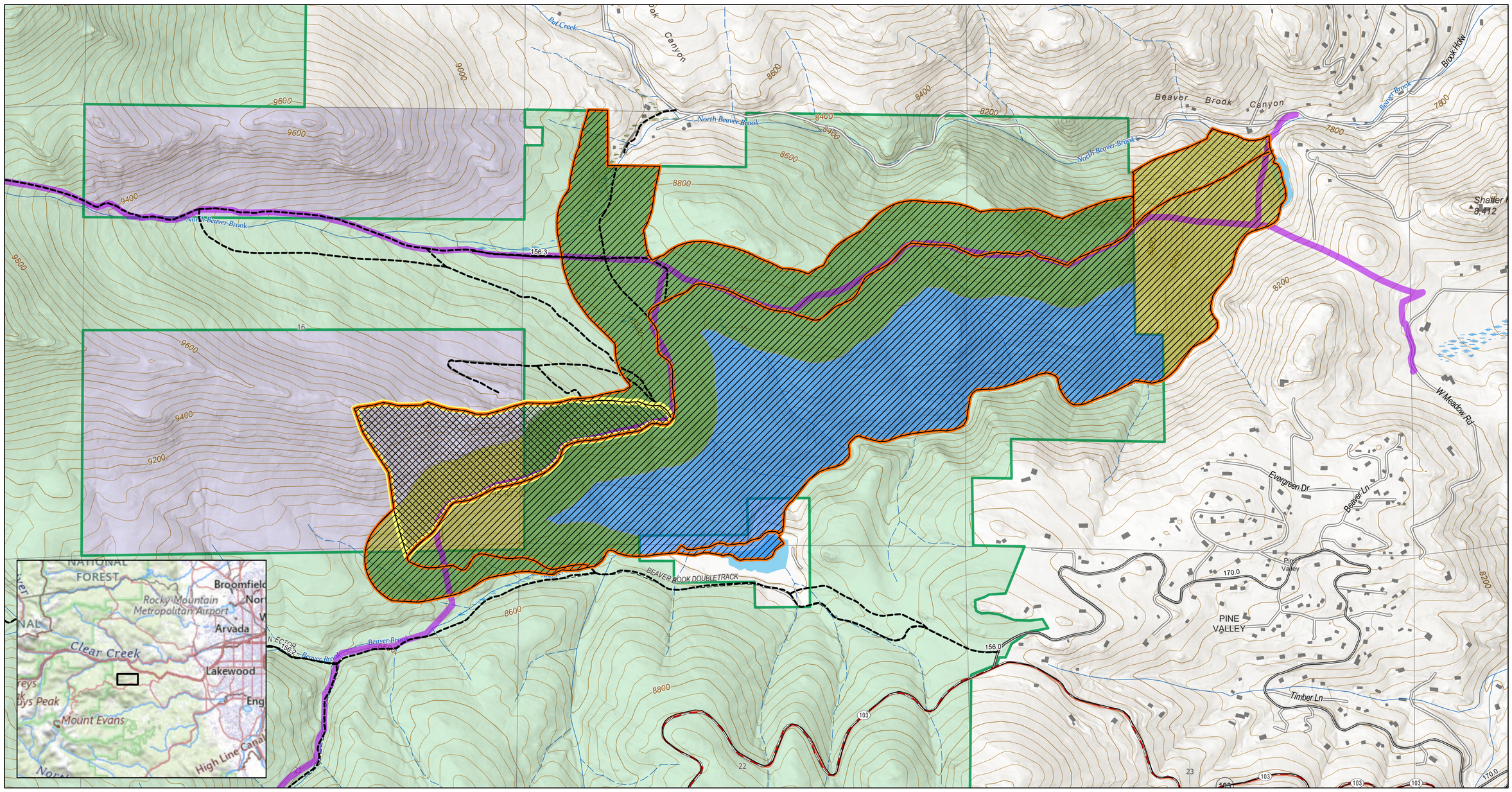
1. Clear Bear Beaver Brook Proposed Action
2. Clear Creek Fire Authority Community Wildfire Protection Plan

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Clear Bear

Beaver Brook - Proposed Action

Arapaho and Roosevelt National Forests & Pawnee National Grassland | Clear Creek Ranger District



0 0.25 0.5 1 Miles

Legend

Major Roads
- Interstate Highway
- US Highway
- State Highway and Route
- Other Major Road
- Other Minor Road
- Additional Roads

Underground Natural Gas Pipeline

Proposed Treatments
- Broadcast RX: Primary
- Broadcast RX: Secondary
- Thin/Pile: Primary (FS)
- Thin/Pile: Primary (Pri)
- Thin/Pile: Secondary

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Clear Creek Fire Authority

Clear Creek COUNTY, COLORADO

2025

Community Wildfire Protection Plan

Clear Creek Fire Authority
Community Wildfire Protection Plan
2025 Update

Prepared by CLEAR CREEK FIRE AUTHORITY

681 CR 308, Dumont, CO 80436

The Clear Creek Fire Authority would like to thank The Ember Alliance for providing the template on which this document is based, along with all the guidance provided at the CWPP Best Practices session at the Sixth National Cohesive Wildland Fire Management Strategy Workshop in Santa Fe, New Mexico.

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How to use this CCFA CWPP document

This document is designed for everyone that lives, works, and manages land within and around the CCFA. Different sections will be most helpful to different people; please use this guide to direct you to the resources most relevant to you.

I want to learn the basics about wildfires, my local fire districts, and what a CWPP is.	**Look for:** •Section 1.a to learn about CWPPs •Section 2 to learn about wildfire threats in your local fire district •Section 3.a to learn what your next steps can be •Appendix A for an introduction to fire behavior
I'm a resident / homeowner and want to learn about protecting my family, home, and property from wildfires.	**Look for:** •Section 3.a to learn about the actions you can take, including detailed recommendations and research-backed guidance for protecting your home and family •Section 3.b to find detailed hazard ratings and recommendations for your neighborhood
I want to learn about community-led wildfire mitigation actions for the CLRRA.	**Look for:** •Sections 3.b, 3.d, and 3.e to learn about the actions communities can take together to better protect everyone, including funding opportunities •Section 3.c to find detailed hazard ratings and recommendations for your neighborhood
I'm with a government agency or cross-boundary organization and want to learn about landscape-scale wildfire mitigation.	**Look for:** •Section 2.d and 2.e to learn about fire history and treatment history in the area •Section 4.b to learn about priority fuel treatment projects for this community •Sections 4.c and 4.d for general recommendations for stand-level and roadside fuel treatments •Section 4.d to learn about pros and cons of different slash management options
I want to learn about the science behind these recommendations and how priorities were made.	**Look for:** •Appendix B to learn about methodology for assessing fire behavior and evacuation, on-the-ground hazard assessments, and treatment prioritization

Acronyms

CCFA	Clear Creek Fire Authority Fire Protection District
CR	County Road
CSFS	Colorado State Forest Service
CWDG	Community Wildfire Defense Grant
CWPP	Community Wildfire Protection Plan
DFPC	Division of Fire Prevention and Control
FAC	Fire Adapted Community
FEMA	Federal Emergency Management Agency
HIZ	Home Ignition Zone
HOA	Homeowner's Association
IIBHS	Insurance Institute for Business & Home Safety
IRPG	Incident Response Pocket Guide
ISO	Insurance Services Office
CCSO	Clear Creek County Sherriff's Office
NFPA	National Fire Protection Association
NWCG	National Wildfire Coordinating Group
RAWS	Remote Automatic Weather Stations
USFS	U.S. Forest Service
WUI	Wildland-Urban Interface

1. Introduction

1.a. Purpose and Need for a Community Wildfire Protection Plan

Community Wildfire Protection Plans (CWPPs) help communities assess local hazards and identify strategic investments to mitigate risk and promote preparedness (Figure 1.a.1). Assessments and discussions during the planning process can assist fire protection districts with fire operations in the event of a wildfire and help residents prioritize mitigation actions. These plans also assist with funding gaps for fuel mitigation projects since many grants require an approved CWPP.



Figure 1.a.1. Elements of a holistic and actionable CWPP.

Clear Creek County developed its original CWPP in August of 2008, further developing community-level CWPIPs from 2013 to 2015. The county portion within the 2020 Evergreen Fire Rescue CWPP has been excluded from this update. The Clear Creek Fire Authority CWPP will update and replace the original 2008 Clear Creek County CWPP while consolidating the information in each CWPIP into a single actionable document. Clear Creek Fire Authority covers approximately 347.5 square miles of the 396 square miles within Clear Creek County. This document explains the current wildland fire risks while providing direction for mitigation actions in the next five years.

The 2008 CWPP, along with each of the CWPIPs, was evaluated to determine what projects had been outlined and the priorities for each area. The project areas were then evaluated to determine what work had been accomplished and the current risks associated with each project area. It was determined that several landscape-scale projects had been completed in partnership with the USFS. The local-level risk reduction projects outlined in the individual implementation plans had not been accomplished. Each of these projects was field evaluated to determine if the project could be accomplished and if the project would result in a risk reduction. Each project that was determined to be viable was then reviewed with the stakeholders responsible for the individual area. This process produced a project list to be incorporated into the updated plan and the following risk reduction priorities:

- Increase defensible space within 30 feet of all structures within the plan area.
- Implement home hardening actions at the neighborhood or individual structure level.
- Perform roadside mitigation actions to improve residents' ability to evacuate effectively.
- Perform landscape-scale mitigation projects to link existing, mitigated areas together in alignment with USFS risk reduction goals.

Complex interactions among wildland fuels, weather, and topography determine how wildfires behave and spread. Many aspects of wildfires are predictable based on known scientific research on the physical processes driving fire. Much of the work in this CWPP is based on scientific research and computer models of wildfire behavior. A basic understanding of fire behavior aids in interpreting the findings and recommendations reported herein. See **Appendix A. Introduction to Wildfire Behavior and Terminology** and the **Glossary** on page 110 for the definition of key terms.

Why is the CWPP relevant to me?

Becoming a fire adapted community that can safely coexist with wildland fire takes a concerted, ongoing effort by everyone who lives, owns property, protects, or manages land in and around this community. Conditions in Clear Creek County share some risk factors common to past catastrophic wildfires across the country. This CWPP provides recommendations for how to prepare your family to safely evacuate during a wildfire, how to mitigate your home ignition zone to give your house a fighting chance at surviving wildfires and protect the lives of firefighters engaged in protecting your community.

Work you do to reduce fire risk on your property can amplify the work that your neighbors do on theirs, resulting in greater protection for everyone. Removing trees from along roadways can increase the visibility of your property to firefighters, increase the accessibility of your property for fire engines, and reduce the chance that non-survivable conditions can develop and entrap residents and first responders during wildfires.

This CWPP is a call to action to do your part to continue making Clear Creek a beautiful and safe community. Land management partners and Clear Creek Fire Authority are here to support your individual efforts, and they are committed to taking action to reduce wildfire risk and increase emergency preparedness for the benefit of this amazing community.



Virginia Canyon looking south above Idaho Springs.

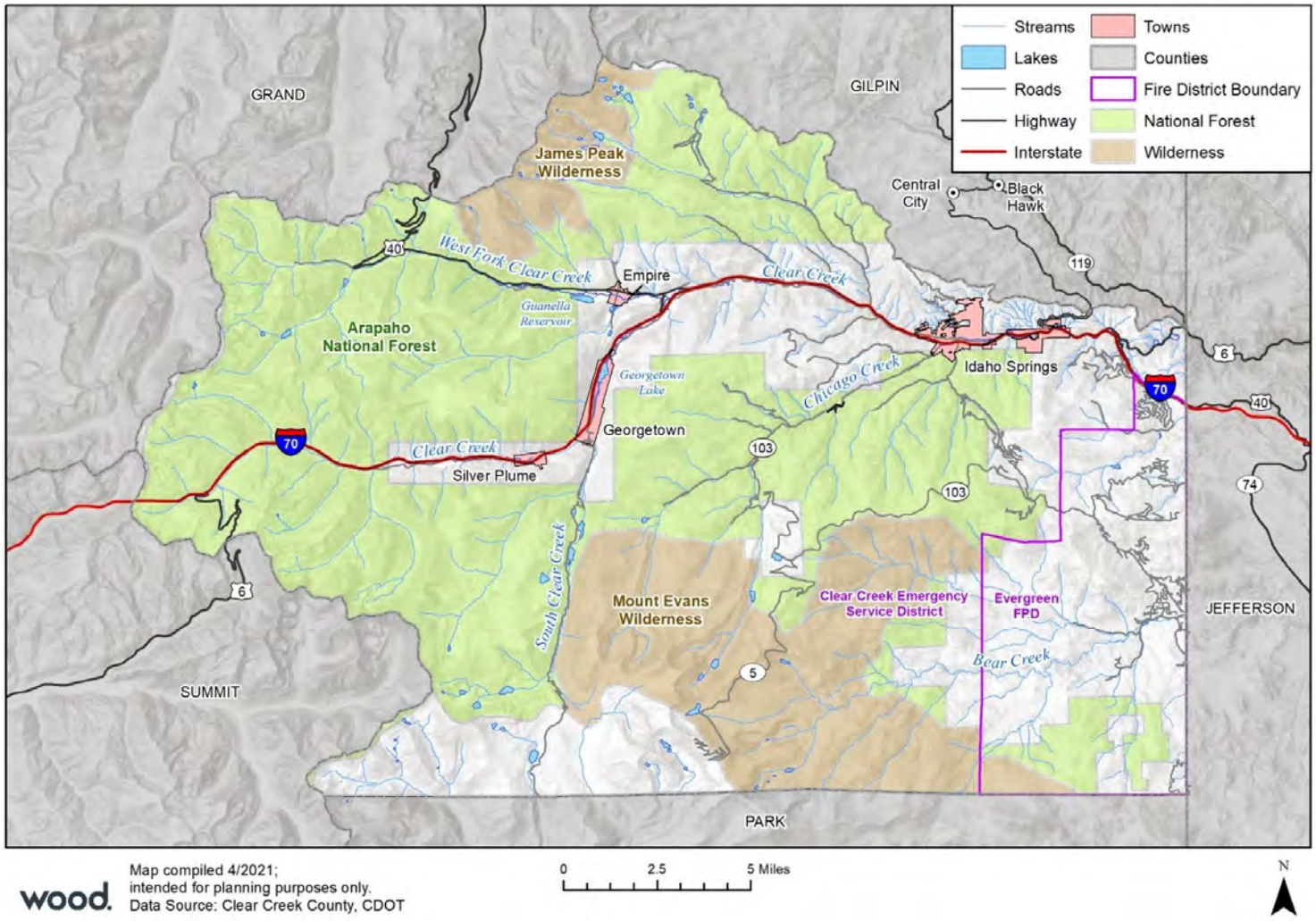


Figure 1.a.2. The Clear Creek Fire Authority boundary in Clear Creek County, Colorado].

Source: CCC Hazard Plan

1.b. Community and Partner Engagement

Collaboration is a crucial component of CWPPs. Community engagement, partner commitment, and follow-through make a CWPP successful. Clear Creek Fire Authority representatives engaged partners from across the district and neighboring districts to develop the recommendations outlined in this CWPP.

The Core Team would like to thank the following partners for their time and effort in developing, providing data, providing feedback, and planning implementation projects for this CWPP:

- Town of Georgetown
- Georgetown Historical Society
- Town of Silver Plume
- Town of Empire
- Clear Creek County Board of Commissioners
- City of Idaho Springs
- Colorado State Forest Service Golden District
- USFS Clear Creek Ranger District
- USFS Arapahoe National Forest Fire Management
- Evergreen Fire Rescue
- Clear Creek Watershed and Forest Health Partnership
- Clear Creek Open Space Commission
- Clear Creek County Public Works

1.c. Accomplishments Since Previous CWPP

Clear Creek Fire Authority

- Silver Dale Historic Area Phase One Mitigation.
- Sawmill Gulch access road mitigation.
- Dumont Cemetery hazard tree removal and mitigation.
- Silver Plume Cemetery defensible space project.
- York Gulch roadway hazard tree removal.

USFS

- Bard Creek Mitigation
- Blue Creek Mitigation
- Stevens Gulch Mitigation
- Fall River Mitigation



Blue Creek Mitigation above Empire

1.d. Integrations with Other Plans

Clear Creek County Hazard Mitigation Plan

The risk reduction actions are designed to align with the hazards identified in the 2022 Hazard Mitigation Plan. This included evaluating the overall natural disaster risk levels for each individual wildland plan unit and developing mitigation actions that best support the overall risk reduction goals.

Upper Clear Creek Watershed Pre-Wildland Fire Planning Study

The risk reduction actions must support the overall watershed goals of reducing sedimentation, wildland fire burn intensity, and protecting riparian areas. Wildland mitigation project prioritization from the plan was integrated into the future project design and prioritization process.

Colorado Forest Action Plan

The forest action plan's risk profiles and priorities were integrated into developing plan unit risk profiles and mitigation action plans.

2. Clear Creek Fire Authority: Background

2.a. General Description

The Clear Creek Fire Authority district covers 347 square miles of Clear Creek County's 396 square miles. The western portion of the district consists of socially vulnerable communities (SVI) with limited financial resources to conduct home hardening or property fuel reductions. Nine mobile home communities within this SVI area are at an increased risk of property loss due to adjacent fuel loading and increased building density. 24% of the community members are 65 or older compared to the national average of 17%. This could result in an increase in difficulty during community evacuations. Eighty percent of community members own and occupy their homes.

Clear Creek Fire Authority's district is bordered by Summit Fire Rescue and East Grand Fire Protection District on the west, along the continental divide. The Timberline Fire Protection District and Central City Fire Rescue share the northern border. The district's east side borders Evergreen Fire Rescue, and Platte Canyon Fire Rescue covers the southern border. Evergreen Fire Rescue provides coverage for the 49 square miles of Clear Creek County that is not within the boundaries of Clear Creek Fire Authority. Mutual and automatic aid agreements are in place with each agency to provide enhanced fire response capabilities.

The land within the Clear Creek Fire Authority ranges from an elevation of 6900 feet in the east to 14,278 feet in the west on Grays Peak. Thirty-one miles of Interstate 70 within the district span the eastern border to the Eisenhower/Johnson Memorial tunnel on the western border. US 6 Clear Creek Canyon is on the east side, while the Loveland Pass portion crosses the Continental Divide on the west. US 40 Berthoud Pass crosses the Continental Divide in the northwest portion of the district. These routes are the primary east-west commerce routes in the central part of Colorado. These routes are critical to supporting emergency response within the district and facilitating community-level emergency evacuations in the case of a wildfire (**Figure 2.a.1**). Georgetown, Idaho Springs, and Silver Plume municipalities have National Historic Districts at risk of damage or loss due to wildland fire. The Cabin Creek hydroelectric power plant supplies a substantial portion of the community's electricity.

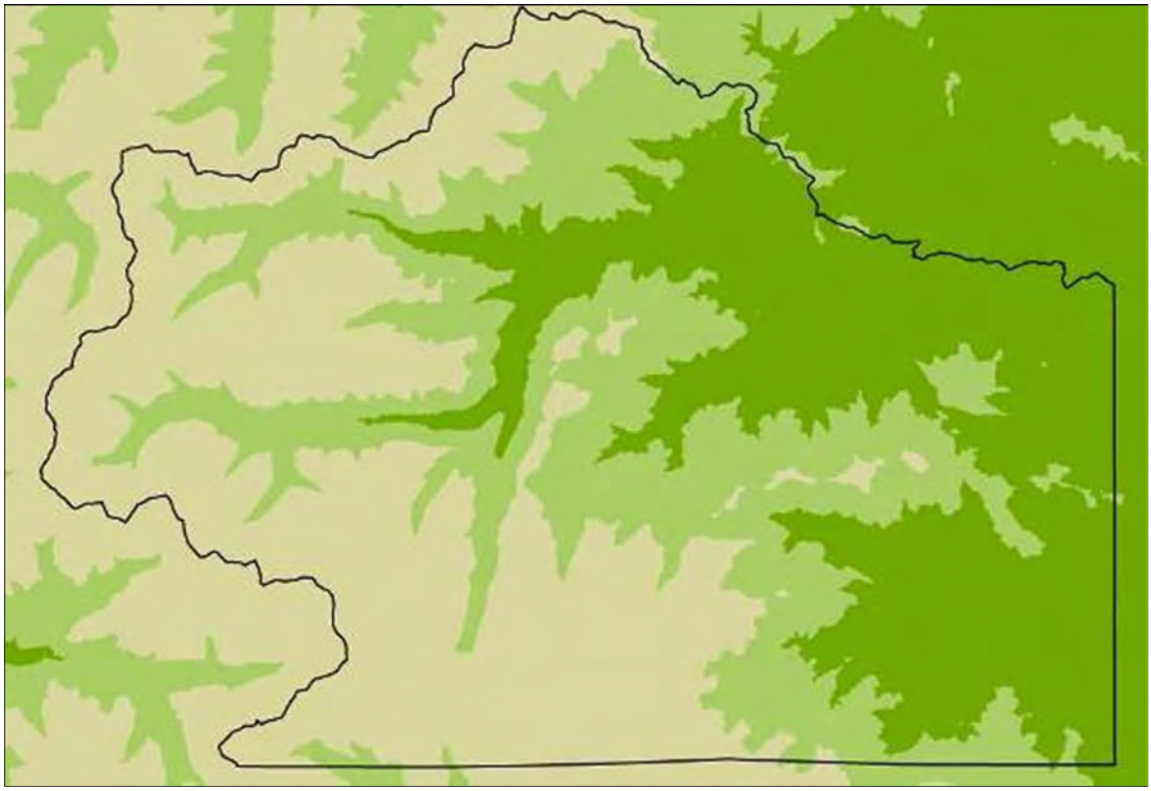
Although the community lacks a hospital, the Clear Creek County Health Center in Idaho Springs offers primary medical care and other community health services. The Georgetown Community School, Carlson Elementary School, and Clear Creek High School offer community sheltering opportunities in addition to their primary educational responsibilities.

The district encompasses the South Platte watershed in the southeastern portion and the Clear Creek watershed in the northwestern portion. Both watersheds are primary water sources for the communities in the Denver metro area, providing water to the four municipalities within the district and the Evergreen area of Jefferson County. Pre- and post-fire watershed protection is critical to supporting the communities within the district. The district lies within the Arapahoe-Roosevelt National Forests, specifically the Clear Creek Ranger District. The USFS federally manages sixty-eight percent of the land (**Figure 2.a.2**).

The region encompasses three unique elevation ecosystems: the Montane, the Subalpine, and the Alpine. Variation in vegetation communities is related to elevation and slope, slope aspect, drainage, available moisture, exposure to wind, type of soil, occurrence of fire or other major disturbances, and other factors.

Ecosystem boundaries are typically characterized by gradual species transitions rather than clear-cut points. However, each ecosystem has some plants and animals that are usually found within its limits.

Existing vegetation serves as the primary fuel source for wildland fires and significantly impacts fire behavior. Accurately mapping vegetative ground cover is critical to fuel modeling and fire behavior modeling. Understanding the fire behavior characteristics of particular fuel types facilitates effective fuel treatment strategies on a local and landscape level.



Distribution of Montane, Subalpine, and Alpine ecosystem zones within Clear Creek County

The **Montane Ecosystem** occurs at elevations between approximately 5,600 and 9,500 feet. Dry, south-facing slopes often have open stands of large ponderosa pines. The spacing of ponderosa pines is somewhat related to the availability of soil moisture. Grasses and shrubs may grow between the widely spaced trees on dry slopes.

North aspects of the Montane ecosystem retain more soil moisture and support denser stands of conifer that are less drought-resistant. The trees may be a mixture of Douglas fir, Lodgepole pine, Ponderosa pine, and an occasional Engelmann spruce. Shade-tolerant plants may grow on the forest floor.

Montane soils with high moisture content may support quaking aspen groves, whose leaves turn golden-yellow in the autumn and whose whitish bark is easily recognizable. Other water-loving small trees may be found along streams or the shores of lakes. These include various willows, mountain alder, and water birch with dark-colored bark. Blue spruce may grow near streams in a few places and sometimes hybridize with Engelmann spruce. Flat Montane valleys often have waterlogged soil and are unable to support the growth of evergreen forests.

Trees common to the Montane Ecosystem include Ponderosa pine, Douglas fir, Lodgepole pine, and Quaking aspen. Common shrubs include Antelope Bitterbrush, Kinnikinnick, Common Juniper, Holly Grape, Wax Currant, Big Sage, and Rocky Mountain Juniper.

The **Subalpine Ecosystem** occupies elevations between 9,000 and 11,000 feet. A typical subalpine forest may consist mainly of Subalpine fir and Engelmann spruce. However, previously burned or disrupted areas may contain varying amounts or even almost pure stands of Lodgepole pine. Lodgepole seedlings thrive in sunlight and are often abundant following a stand-replacement event, such as fire or deforestation. However, once the forest is re-established, plant succession may result in increasing amounts of spruce and Subalpine fir.

Ground cover in a previously burned forest area often includes two species of huckleberry. Limber pine may also be a part of subalpine forests. Engelmann spruce and Subalpine fir, which grow straight and tall in the lower subalpine forests, become shorter and deform nearer the tree line. At the tree line, tree seedlings may germinate on the left side of rocks and grow only as high as the rock, providing wind protection. Further growth is more horizontal than vertical, and additional rooting may occur where branches come into contact with the soil. The resulting low growth of dense trees is called krummholz. Well-established krummholz trees may be several hundred to a thousand years old.

Trees common to the Subalpine Ecosystem include Subalpine fir, Engelmann spruce, and Limber pine. Shrubs common in the Subalpine zone include Blueberry, Cinquefoil, Wax Currant, Elder, and Wood's Rose.

The **Alpine Ecosystem**, starting at elevations of 11,000 to 11,500 feet, completes the county's suite of vegetation ecosystems. While wildfire is rare at these high elevations, mentioning its associated plant types is warranted. Extreme weather conditions with strong, frequent winds and cold temperatures help limit what plants can grow there. Most alpine plants are perennial grasses and forbs, but willows may be found in protected ravines and shallow drainages. Cushion plants, looking like ground-hugging clumps of moss, escape the strong winds blowing a few inches above them. Where tundra soil is well-developed, grasses and sedges are common. Non-flowering lichens cling to rocks and soil.

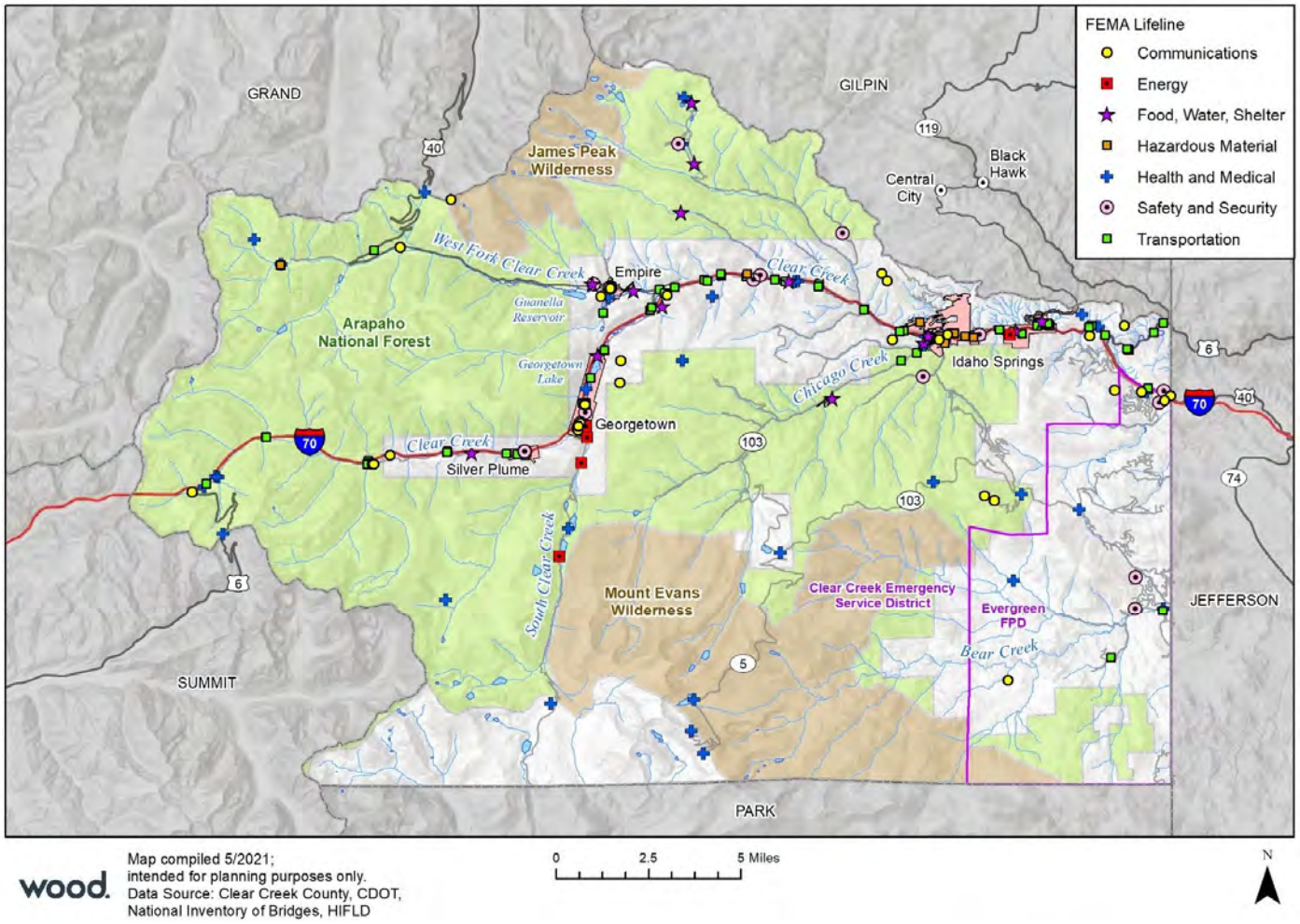


Figure 2.a.1. *Non-residential values at risk within and around Clear Creek Fire Authority.*

Sources: . CCC Hazard Plan

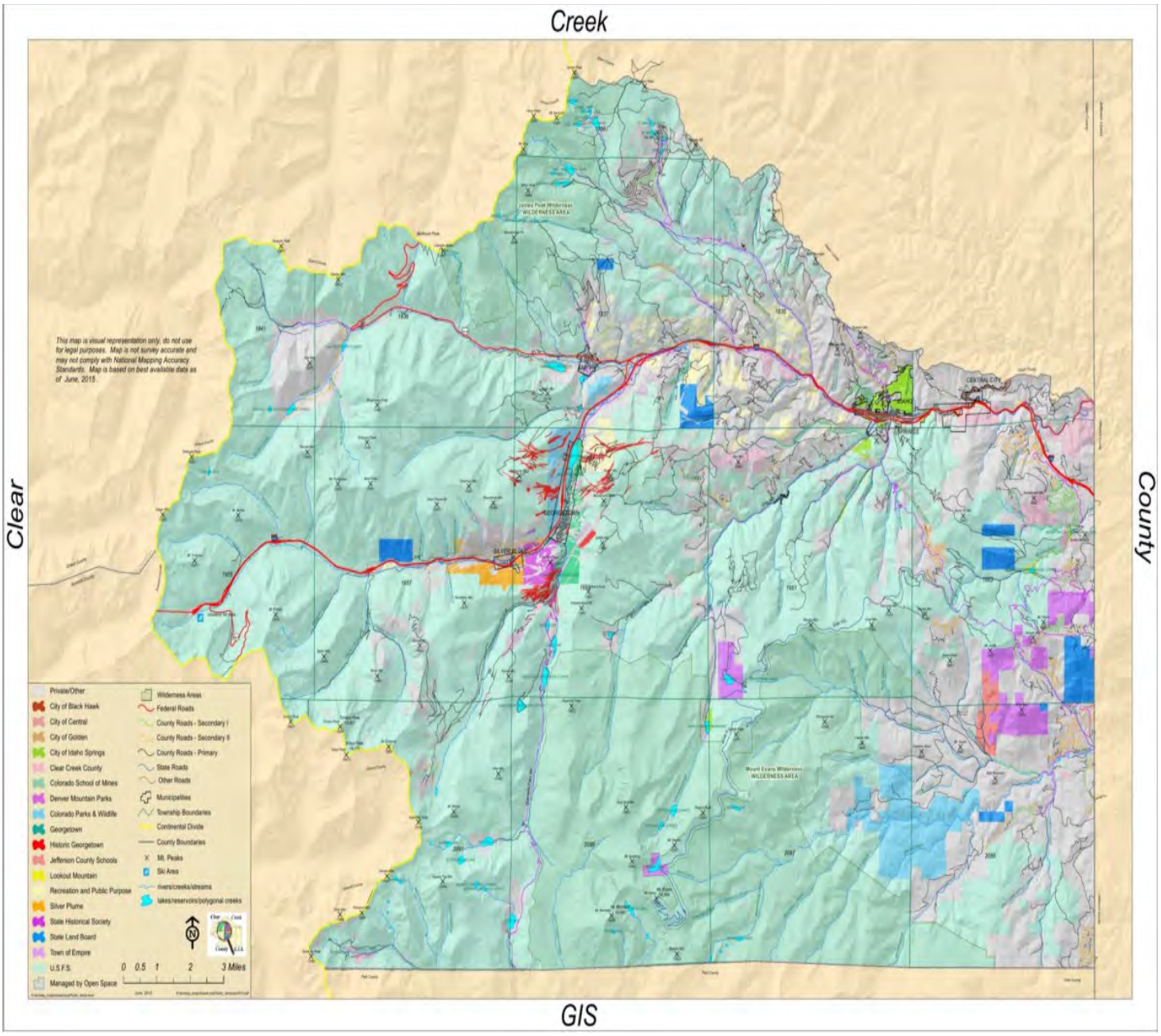


Figure 2.a.2. Publicly owned land across Clear Creek Fire Authority.

Source: Clear Creek County GIS

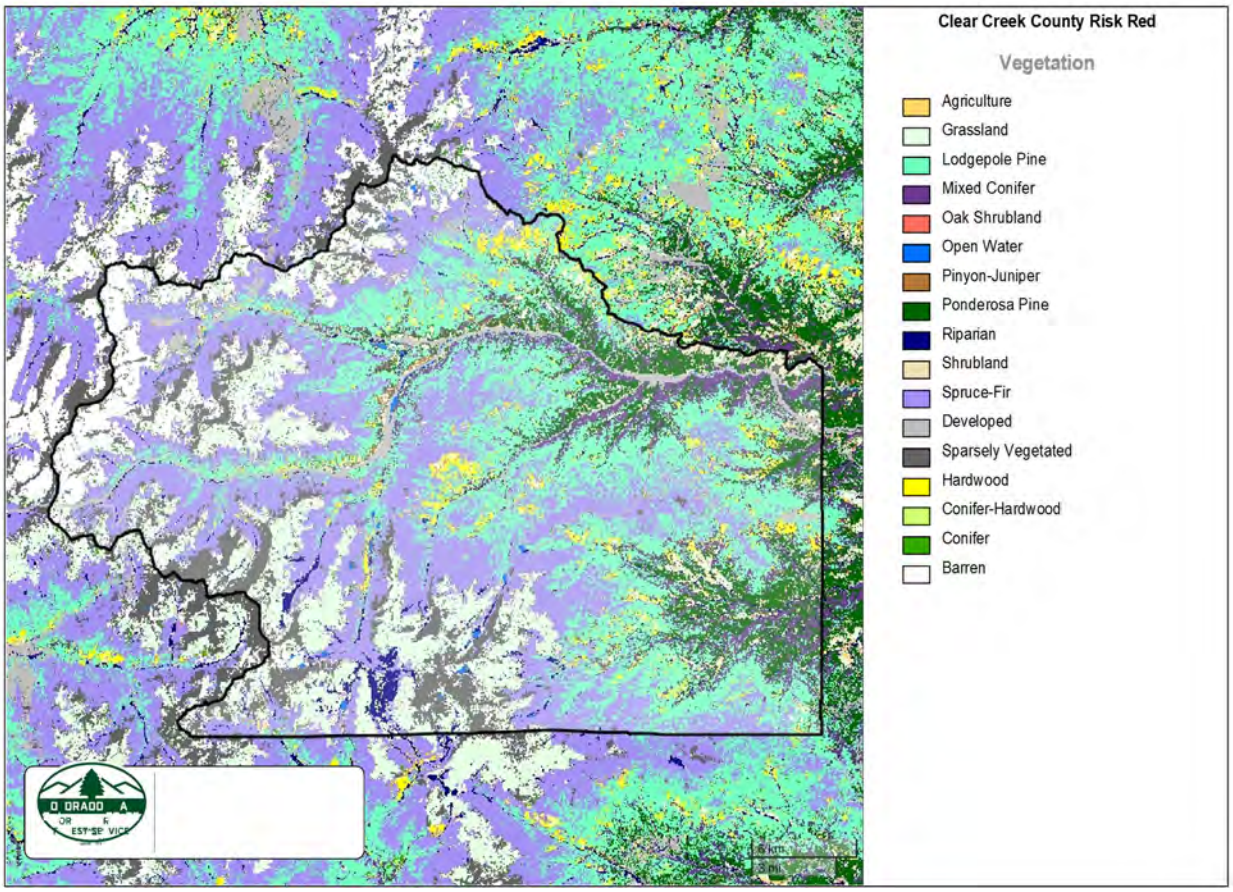


Figure 2.a.3. Map of vegetation across Clear Creek Fire Authority.

Source: CSFS Forest Atlas.

2.b. District Capacity

Clear Creek Fire Authority operates eight stations strategically located throughout the district. The Idaho Springs, Dumont, and Georgetown stations have 24/7 staffing that consists of both career and volunteer members. Stations in Empire, Floyd Hill, and Saint Mary's have resident quarters for six firefighters who reside in the district. The department has sixteen career firefighters: one Fire Chief, one Assistant Fire Chief, one Special Operations Captain, one Training Captain, one Shift Captain, five Shift lieutenants, and six firefighters. In addition to career staffing, the department has forty volunteer personnel, including one operations captain, one special operations lieutenant, one shift lieutenant, and thirty-seven firefighters. In addition to the above staffing, the department maintains a four-person seasonal mitigation crew, consisting of one supervisor and three wildland firefighters. This crew works twenty-six weeks each year, beginning in May, to provide additional wildland response capabilities while reducing risk through wildland mitigation projects in the community.

The Authority has thirty-five National Wildfire Coordinating Group (NWCG) qualified wildland firefighters. The qualifications range from Task Force Leader/Type 4 Incident Commander to the primary Type 2 Firefighter. This allows the agency to conduct simultaneous operations by integrating additional mutual aid resources from local, state, and federal partner agencies. The Clear Creek Sheriff transferred responsibility for wildland fire suppression to the agency in 2016, including the responsibility of maintaining the Marmots Type 2 initial attack crew. The crew was reconfigured to be a Type 2 wildland suppression module in 2019. The module can be configured as a ten-person hand crew or a combination of hand crew and engine configurations. This allows for the module to be configured to match the mission best and for two modules to be assembled and deployed to different incidents.

Apparatuses are strategically placed into the following stations:

Station 1 Dumont:

One Type 4 Engine/Tender with 1000-gallon water capacity

One Type 6 Wildland Engine

Two Polaris UTVs with patient transport capabilities

One 4x4 Utility support truck

Station 2 Idaho Springs:

One 75ft Quint Ladder Truck

One Type 4 Engine/Tender with 1000-gallon water capacity

One Type 6 All-hazard response engine

One Technical Rescue truck

One Water Rescue/ Hazardous Materials Truck

One Type 6 Wildland response engine

One 4x4 Utility support truck

Station 3 Empire:

One Type 4 Engine/Tender with 1000-gallon water capacity

One Type 2 Tender with a 2000-gallon water capacity

Station 4 Georgetown:

One 100ft Quint Ladder Truck

One Type 4 Engine/Tender with 1000-gallon water capacity

One Type 6 All-hazard response engine

Station 6 Floyd Hill:

Two Type 4 Engine/Tender with 1000-gallon water capacity

Station 7 Saint Mary's:

One Type 4 Engine/Tender with 1000-gallon water capacity

One Type 2 Tender with a 2000-gallon water capacity

One 4x4 Utility support truck

Station 8 Silver Plume:

One Type 4 Engine/Tender with 1000-gallon water capacity

Station 9 York Gulch:

One Type 4 Engine/Tender with 1000-gallon water capacity

Insurance Service Office Fire Hazard Ratings

The Insurance Service Office (ISO) provides fire and wildfire hazard assessment services for residential and commercial property insurers to help establish a standardized basis for appropriate fire insurance premiums. Over 44,000 fire-response jurisdictions are regularly assessed for up-to-date information

concerning a community's fire protection services. The Fire Suppression Rating Schedule provides a standardized methodology for reviewing the firefighting capabilities of individual communities. The schedule assesses major elements of a community's fire-suppression capacity and assigns a numerical rating, known as the Public Protection Classification. Ratings range from 1 (best) to 10 (worst). These ratings are established based on the following factors and are developed independently of any findings developed in the CWPP process:

- **Fire alarms**

Ten percent of the grading is based on how well the fire department receives fire alarms and dispatches its firefighting resources.

- **Engine companies**

Fifty percent of the overall grading is based on the number of "engine companies" and the amount of water a community needs to fight a fire. This includes the distribution of suppression resources, equipment maintenance, availability of personnel, and training.

- **Water supply**

Forty percent of the grading is based on the community's water supply. In urban interface settings where a municipal water supply is available, the water supply is assessed for fire suppression capacity beyond daily maximum consumption and the distribution of fire hydrants. In rural areas, documenting the ability to provide a continuous water supply to firefighting apparatus through a water tender relay may suffice.

The current ISO ratings for various areas within the Clear Creek Fire Authority range from 4, in areas serviced by a municipal water supply, to 9X, in isolated subdivisions with no available emergency water resources.

2.c. Wildland-Urban Interface

The WUI is an area where the built environment meets wildfire-prone areas—places where wildland fire can move between natural vegetation and the built environment and result in negative impacts on the community (Forge, 2018). People who live and work in the WUI must be aware of the effect that ecosystem processes and disturbances, such as wildland fires, have on their lives. WUI exists along a continuum of wildland to urban densities (**Figure 2.c.1**). Wildland-urban intermix refers to areas where housing and wildland vegetation intermingle, while wildland-urban interface refers to areas where housing is in the vicinity of a large area of dense wildland vegetation (Martinuzzi et al., 2015).

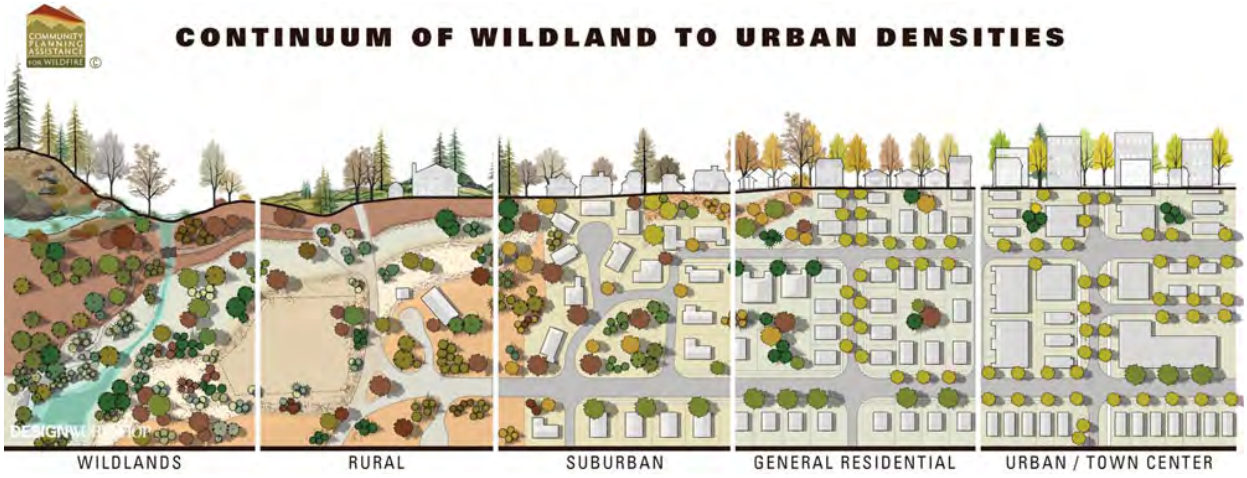


Figure 2.c.1*. The wildland-urban interface exists along a continuum of wildland to urban densities. Source: Community Planning Assistance for Wildfire.*

Due to the topography, the residents within the Clear Creek Fire Authority borders primarily reside within the valley floors of the drainages or adjacent to the valley floor. All community areas are either adjacent to forested areas or constructed within a forested area. These conditions put 99% of the residents within the wildland-urban interface (WUI) risk areas. (**Figure 2.c.2**). According to the 2020 Wildfire Risk to Communities analysis by the U.S. Forest Service, homes in Clear Creek Fire Authority and the surrounding areas have a higher risk of fire than 95% of the communities in the United States (USFS, 2021a)The number of available buildable properties has steadily decreased over the last ten years, forcing new development to move farther out from the valley floor. This has increased the wildfire risk in some portions of the community.

The Wildland-Urban Interface (WUI) Risk Index layer is a rating of the potential impact of a wildfire on people and their homes.

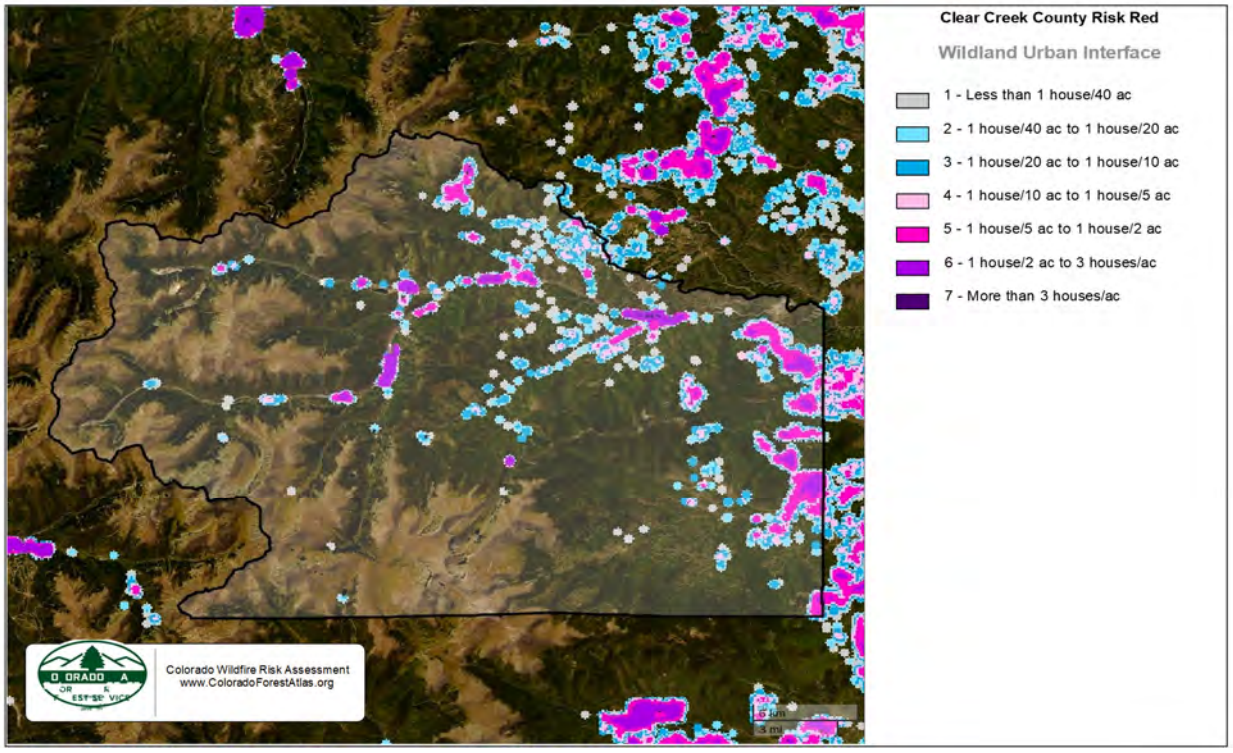
The key input, WUI, reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the wildland-urban interface and rural areas is essential for defining potential wildfire impacts to people and homes.

The WUI Risk Index is derived using a response function modeling approach. Response functions are a method of assigning a net change in the value to a resource or asset based on susceptibility to fire at different intensity levels, such as flame length.

To calculate the WUI Risk Index, the WUI housing density data were combined with flame length data, and response functions were defined to represent potential impacts. The response functions were defined by a team of experts led by Colorado State Forest Service mitigation planning staff. By combining flame length with the WUI housing density data, it is possible to determine where the greatest potential impact on homes and people is likely to occur. Customized urban encroachment algorithms were used to ensure that those fringe urban areas were included in the WUI Risk outputs. Encroachment distances into urban areas were based on the underlying fuel models and their fuel types and propensity for spotting and spreading.

The WUI Risk Index has been consistently calculated for all areas in Colorado, allowing for comparison and ordination of areas across the entire state. Data is modeled at a 20-meter cell resolution, which is consistent with other CO-WRA layers.

For the purpose of this CWPP, the WUI boundary includes all of Clear Creek County, the surrounding landscape that could transmit wildland fire into the Clear Creek Fire Authority, and the area along important evacuation routes (**Figure 2.c.2**; see methodology in **Appendix B**. Strategic wildfire mitigation across the WUI can increase the safety of residents and wildland firefighters and can reduce the chances of home loss.



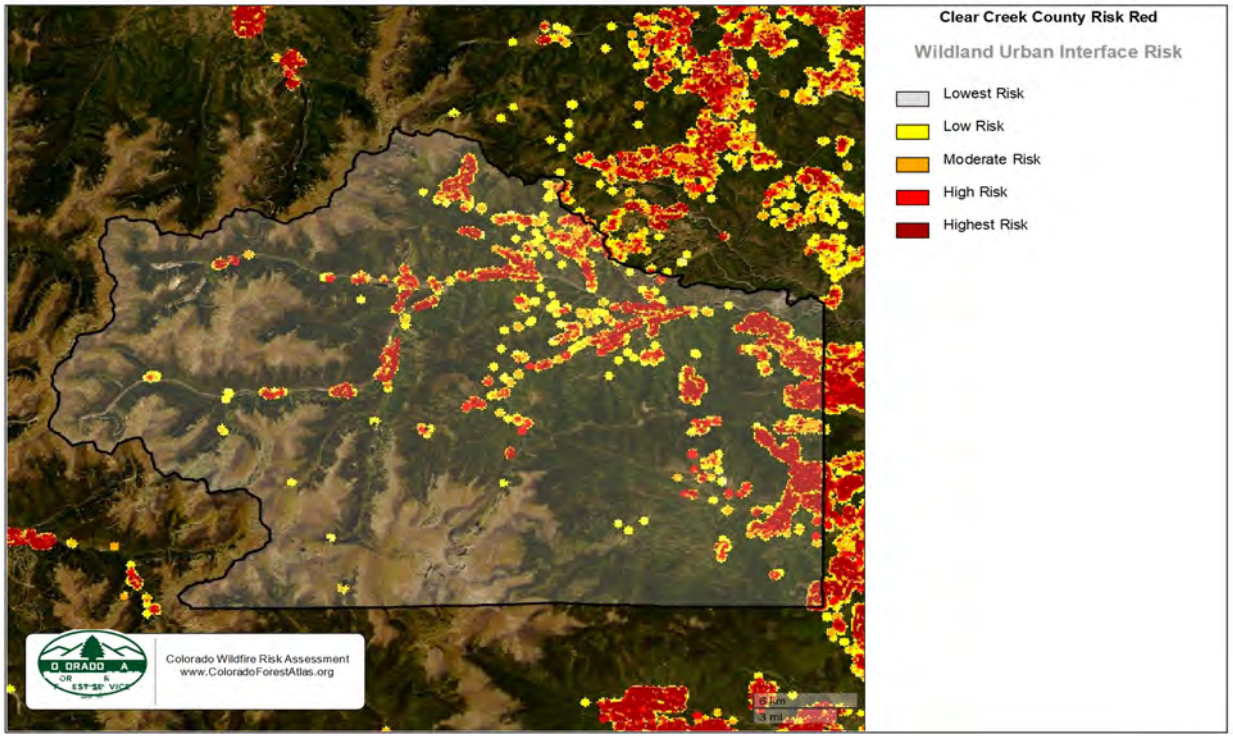


Figure 2.c.2. *Residents in the Clear Creek Fire Authority Wildland-Urban Interface and/or Intermix are exposed to elevated wildfire risk. For this CWPP, the WUI boundary was determined to be population areas within the forest or adjacent to forested areas in Clear Creek County (see methodology in* ***Appendix B****). Source: CSFS Forrest Atlas*

2.d. Fire History

Members of the Ute tribe inhabited Clear Creek during the United States' westward expansion. Fire was used to manage the forest, limiting fire growth while supporting the traditional hunting grounds. The discovery of gold in what is now Idaho Springs in the winter of 1859 began sixty years of human-caused

fires combined with rapid deforestation due to increased mining activity. The drawdown of mining in the 1920s reduced timber demand. The reforestation of large parts of the county consisted of lodgepole pine stands replacing areas previously mixed conifer stands.

The era of reforestation was combined with the public policy to suppress all wildland fires, whether human or naturally caused. These policies have produced a landscape with limited fire impact over the previous century, resulting in increased tree density and large amounts of timber litter throughout the county. Most fires over the last twenty years have been five acres in size or less due to rapid fire suppression actions. While this tactic has limited the impact of these fires, it has not reduced the overall fire risks within these timber stands.

Historic Named Fire History from 2002-2024

Fire	Month/Year	Acres Burned	Comments
North Spring Fire	June 2002	9	
Fountain Gulch	June 2002	200	
Fox Gulch Fire	May 2004	1.5	
Benchmark 263 Fire	June 2004	5	USFS Lands
Closet Fire	August 2004	<1	
Hidden Valley Fire	August 2004	<1	
Naylor Lake Fire	July 2005	1	
Three Valley Tree Fire	August 2005	<1	
Dumont East Fire	September 2005	<1	
Devil's Gate Fire	June 2006	<1	
Hwy 103 MM 12 Fire	June 2006	<1	
York Gulch Road Fire	June 2006	<1	
Devil's Tongue Fire	July 2006	<1	USFS Lands
Standley 236 Fire	September 2007	<1	
Alvarado Fire	November 2007	25	
Devil's Canyon	June 2008	14	USFS Lands
Red Elephant Fire	June 2019	10	
Miners Candle	December 2021	20	
Note: OEM - Office of Emergency Management Source: 2008 Community Wildfire Protection Plan for Clear Creek County, CO Forest Atlas			

2.e. Potential Fire Behavior and Exposure in Clear Creek Fire Authority

Many neighborhoods in the Clear Creek Fire Authority could experience extreme fire behavior that could put the lives of residents, visitors, and firefighters at risk. Residents are exposed to steep slopes, dense forests, limited road access in and out of neighborhoods, and flammable buildings, contributing to this dangerous situation.

Canopy fires are very dangerous, destructive, and difficult to control due to their increased fire intensity. From a planning perspective, it is important to identify where these conditions are likely to occur on the landscape so that special preparedness measures can be taken if necessary. The Fire Type layer shows the footprint of where these areas are most likely to occur. However, it is essential to note that canopy fires are not restricted to these areas. Under the right conditions, it can occur in other canopied areas.

There are two primary fire types – surface fire and canopy fire. Canopy fire can be further subdivided into passive canopy fire and active canopy fire. A short description of each of these is provided below.

- Surface Fire - A fire that spreads through surface fuel without consuming any overlying canopy fuel. Surface fuels include grass, timber litter, shrub/brush, slash, and other dead or live vegetation within about 6 feet of the ground.
- Passive Canopy Fire – A type of crown fire in which the crowns of individual trees or small groups of trees burn, but solid flaming in the canopy cannot be maintained except for short periods (Scott & Reinhardt, 2001).
- Conditional Crown Fire – A type of crown fire in which an active crown fire is possible, but one would not be predicted to initiate. Two outcomes are likely in that situation: surface fire if the fire starts as a surface fire, or active crown fire if the fire enters the stand as an active crown fire.
- Active Canopy Fire - A crown fire in which the entire fuel complex (canopy) is involved in flame, but the crowning phase remains dependent on heat released from surface fuel for continued spread (Scott & Reinhardt, 2001).

The fire-type map is derived at a 20-meter resolution and was estimated based on the extreme weather scenario (percentile 97th). This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site-specific analysis, it is appropriate for regional, county, or local planning efforts.

Quantifies the potential fire intensity by order of magnitude.

The Fire Intensity Scale (FIS) specifically identifies areas where significant fuel hazards and associated dangerous fire behavior potential exist. Like the Richter earthquake scale, FIS provides a standard scale to measure potential wildfire intensity. FIS consists of five (5) classes, with an order of magnitude between classes tenfold. The minimum class, Class 1, represents very low wildfire intensities, and the maximum class, Class 5, represents very high wildfire intensities.

1. Class 1, Lowest Intensity:

Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.

2. Class 2, Low:

Small flames, usually less than two feet long; a small amount of very short-range spotting is possible. Fires can be easily suppressed by trained firefighters using protective equipment and specialized tools.

3. Class 3, Moderate:

Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.

4. Class 4, High:

Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.

5. Class 5, Highest Intensity:

Very large flames up to 150 feet in length; profuse short-range spotting; frequent long-range spotting; strong fire-induced winds. An indirect attack is marginally effective at the head of the fire. Great potential for harm or damage to life and property.

Burn Probability and Fire Intensity Scale are designed to complement each other. Unlike Wildfire Threat, the Fire Intensity Scale does not incorporate historical occurrence information. It only evaluates the potential fire behavior for an area, regardless if any fires have occurred there in the past. This additional information allows mitigation planners to quickly identify areas where dangerous fire behavior potential exists in relationship to nearby homes or other valued assets. Since all areas in Colorado have a fire intensity scale calculated consistently, it allows for comparison and ordination of areas across the entire state. For example, a high-fire-intensity area in Eastern Colorado is equivalent to a high-fire-intensity area in Western Colorado. The fire intensity scale is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography – and the spread itself (back, flank, or head fire influences fire behavior for a given pixel for a specific fire simulation). Weather is by far the most dynamic variable as it changes frequently. Thus, each pixel may burn many times with different fire spread patterns based on the aforementioned factors. The fire intensity scale maps represent an average fire intensity map. The fire intensity scale map is derived at a 20-meter resolution. This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site-specific analysis, it is appropriate for regional, county, or local planning efforts.

Unless structural density is high, existing vegetation is the primary fuel source for wildland fire and has a direct effect on fire behavior. Understanding the fire behavior characteristics of particular vegetation types is paramount in predictive fire behavior modeling. There are several systems for classifying fuel models. This analysis utilizes the most commonly used fuel modeling methodology as developed by Hal E. Anderson (1982). Thirteen FBFMs are presented in four fuel groups: grasslands, shrublands, timber litter and understory, and logging slash. Each group comprises three or more fuel models.

Fire Behavior Fuel Model Descriptions Found in Clear Creek County

FBFM	Description
1 Short Grass	**Grass Group** – Fire spread is determined by the fine, very porous, and continuous herbaceous fuels that have or are nearly cured. These are surface fires move rapidly through the cured grass and associated material. Very little shrub or timber is present, generally less than one-third cover of the area. Annual and perennial grasses occur in this model. Fire ROS can exceed 300 chains per hour with flame lengths over 8 feet.
2 Grass with Timber/Shrub Overstory	**Grass Group—**Fire spread occurs through curing of dead herbaceous fuels. These are surface fires in which downed woody debris from the shrub and tree component adds to fire intensity. Open shrublands, pine stands, or oakbrush stands that cover one- to two-thirds of the area generally fit this model.

4 Mature Brush	**Shrub Group** – High-intensity and fast-spreading fires involve the foliage and live and dead fine woody material in the crowns of a nearly continuous secondary overstory.
5 Young Brush	**Shrub Group** – Fire is generally carried in the surface fuels made up of litter cast by the shrubs and grasses or forbs in the understory. The live vegetation produces poor burning qualities.
6 Intermediate or Dormant Brush	**Shrub Group** – Fire spreads through the shrub layer with flammable foliage but requires moderate winds to maintain the foliage fire. Fire will drop to the ground in low-wind situations. Shrubs are mature, with heights less than 6 feet. These stands include oak brush and mountain mahogany less than 6 feet tall. The fire rate of spread can be rapid, with flame lengths of 6 to 10 feet.
8 Closed or Short-Needle Timber Litter–Light Fuel Load	**Timber Group—**These fuels produce slow-burning ground fires with low flame lengths. Occasional "jackpots" in heavy fuel concentrations may occur. These fuels pose a fire hazard only under severe weather conditions with high temperatures, low humidity, and high winds. They are mixed conifer stands with little undergrowth. The fire rate of spread is up to 106 feet per hour, and flame lengths are 1 foot.
9 Hardwood or Long-Needle or Timber Litter–Moderate Ground Fuel	**Timber Group** – Fires run through the surface litter faster than in FBFM 8 and have longer flame lengths. These are semi-closed to closed canopy stands of long-needle conifers, such as ponderosa pine. The compact litter layer consists mainly of needles and occasional twigs. Concentrations of dead-down woody material contribute to tree torching, spotting, and crowning. The fire rate of spread is up to 27 chains per hour with flame lengths of 5 feet.
10 Mature/Overmature Timber and Understory	**Timber Group** – Surface fires burn with greater intensity than the other timber litter models. Dead and down are heavier than other timber models, and the stands are more prone to hard-to-control fire behavior such as torching, spotting, and crown runs.

Source: (Anderson,1982)

FBFM 1 – Short Grass



Characteristics: Grassland and savanna vegetation are dominant. Very little shrub or timber overstory is present, generally less than 30 percent of the area. Western perennial and annual grasses such as western wheatgrass, buffalograss, blue grama, and little bluestem that characterize short- to mid-grass prairie are common. Cheatgrass, medusahead, ryegrasses, and fescues occur at slightly higher elevations. Grass/shrub combinations that meet the above criteria are also represented.

Fire Behavior: Fire spread is governed by the fine, very porous, and continuous herbaceous fuels that have cured or are nearly cured. Fires burn as surface fires that move rapidly through the cured grass and associated material.

FBFM 2 – Grass with Timber/Shrub Overstory



Characteristics: FBFM 2 defines surface fuels found in open conifer, shrub, or riparian stands. Ground cover generally consists of grasses, needles, and small woody litter. Conifers are typically mature and widely spaced. Limited shrub or regeneration may be present. This model favors mature conifer in the foothill to montane zones. Open shrubland, pine stands, or Rocky

Mountain juniper that cover one-third to two-thirds of the area may generally fit this model. Such stands may include clumps of fuels that generate higher fire intensities that may produce firebrands (embers that stay ignited and aloft for great distances).

Fire Behavior: Fire is spread primarily through fine herbaceous fuels, either curing or dead. These are surface fires in which the herbaceous material, in addition to litter and dead-down stem wood from the open shrub or timber overstory, contributes to the fire intensity.

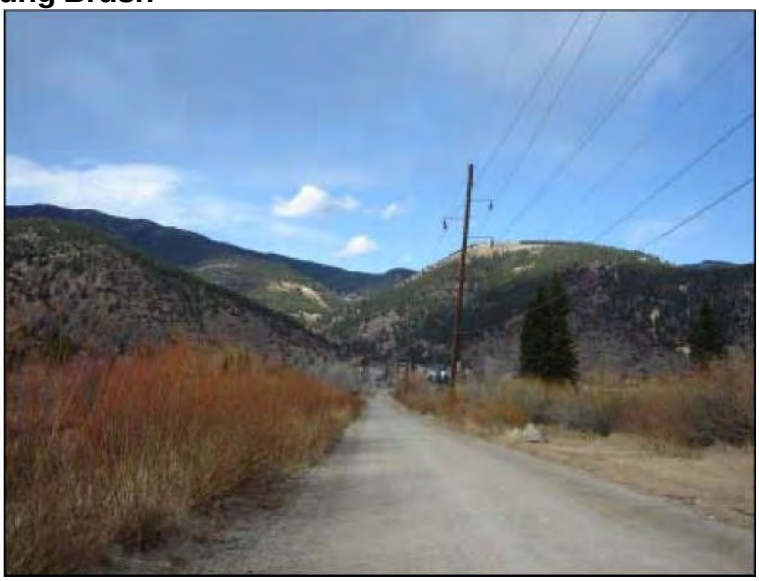
FBFM 4 – Mature Brush



Characteristics: Stands of mature shrubs 6 or more feet in height, local oak brush, and tall western sage with flammable foliage and a significant dead component fit this model (Figure 3). A deep litter layer may also be present. Actual brush height qualifying for this model varies and depends on local conditions.

Fire Behavior: High fire intensity and fast-spreading fires involve the foliage and live and dead fine woody material in the crowns of a nearly continuous secondary overstory.

FBFM 5 – Young Brush



Characteristics: Shrubs in FBFM 5 are younger than in FBFM 6, not as tall as in FBFM 4, and do not contain as much fuel as in FBFMs 4 and 6. Shrub height is less than 6 feet tall, and shrubs cover most of area. Young green stands with no dead wood qualify for this FBFM. Fuel situations would include young stands of oak and mountain mahogany.

Fire Behavior: Fire is generally carried on the surface fuels, which are litter cast by the shrubs, grasses, and forbs in the understory. Live vegetation produces poor burning qualities.

FBFM 6 – Intermediate or Dormant Brush



Characteristics: Shrubs in FBFM 6 are older than in FBFM 5, not as tall as in FBFM 4, and do not contain as much fuel as in FBFM 4. Fuel situations to be considered include intermediate stands of chamise, chaparral, oak brush, mountain mahogany, and juniper shrublands.

Fire Behavior: Fires carry through the shrub layer where the foliage is more flammable than in FBFM 5; however, this requires moderate winds (greater than 8 mph at midflame height). Fire will drop to the ground at low wind speeds or break in continuous stands.

Source: Anderson 1982C-5

FBFM 8 – Closed or Short-Needle Timber Litter – Light Fuel Load



Characteristics: Closed canopy stands of short-needle conifers or hardwoods that have leafed out support fire in the compact litter layer. This layer is mainly needles, leaves, and twigs because little undergrowth is present in the stand. Representative conifer types are white pine, Lodgepole Pine, spruce, and fir. Ponderosa pine can also be included if the understory reflects these characteristics.

Fire Behavior: Fires associated with this model are generally slow-burning, low-intensity ground fires, although a fire may encounter an occasional area of heavy fuels concentration that can flare up (jackpot). Only under severe fire weather conditions does this fuel model pose a significant fire hazard, and this is typically due to fire becoming active in the crowns of trees.

FBFM 9 – Hardwood or Long-Needle or Timber Litter – Moderate Ground Fuel Load



Characteristics: Both long-needle conifer and hardwood stands, especially the oak-hickory types, are characterized by FBFM 9. Closed stands of long-needle pine such as ponderosa pine are grouped in this model.

Fire Behavior: Fires run through the surface litter faster than in FBFM 8 and have longer flame lengths. Fall fires in hardwoods are predictable; however, high winds will actually cause higher rates of spread than predicted because of spotting caused by rolling or blowing embers and fire brands. Concentrations of dead-down woody material will contribute to possible torching, crowning, and spotting.

Source: Anderson 1982C-7

FBFM 10 – Mature/Over Mature Timber and Understory



Characteristics: Any forest type may be considered FBFM 10 if heavy downed woody material is present. Locally, this model is represented by dense stands of over-mature ponderosa pine, Lodgepole Pine, mixed conifer, and continuous stands of Douglas fir. Examples include insect or disease-ridden stands, wind-thrown stands, over-mature situations with deadfall, and aged light thinning or partial-cut slash. Dead-down fuels include large quantities of 3-inch or larger limb wood resulting from over-maturity or natural events that create a large load of dead material on the forest floor.

Fire Behavior: Fire will burn in the surface and ground fuels more intensely than the other timber litter models. Crowning out, spotting, and torching of individual trees is more frequent in this fuel situation, leading to potential fire control difficulties.

Source: Anderson 1982C-8

Grasslands, FBFMs 1 and 2

Grass fuels are most common on south-facing slopes and valley meadows. On many forested slopes with a south-facing aspect, grasses may mix with open ponderosa pine and shrubs to form a vegetative understory. The short- and mid-grass species common to this area include blue grama, western wheatgrass, needle-and-thread, and prairie June grass. These western annual grasses are adapted to the relatively frequent disturbance of fire and benefit from fast-moving, "cool" fire because it removes excess dried biomass and adds nutrients to the soil. In the absence of these periodic fires, the accumulation of thatch and woody material and the encroachment of brush increases surface fuel loads, increasing the probability of high-intensity surface fires and compromising grassland health.

Historic fire return intervals for these grasslands range from approximately 10 to 35 years, allowing for a rapid departure from the historic fire regime conditions when fire is excluded. Fire exclusion also

encourages shrub and noxious grass and weed encroachment. Cheatgrass, also known as downy brome, is an aggressive invasive grass species now common throughout the state and region. It exhibits higher fire intensity than other native grasses. Despite its early growth and rich color, cheatgrass provides poor nutrition for livestock, deer, and elk.

Although brush and timber fires are known for their intense behavior, the potential impact of grass fires should not be underestimated. These light, flashy fuels can be resistant to suppression, producing incredibly rapid rates of spread and flame lengths in excess of 10 feet. They can pose a real risk to firefighter safety and a serious threat to untreated homes.

Open prairie, grassy slopes, and irrigated meadows and lawns are characterized as FBFM 1. A grassy understory of ponderosa pine mixed with other herbaceous fuels that would carry a surface fire is defined as FBFM 2.

Fire Behavior is generally lower intensity but fast-moving.

Shrublands, FBFMs 4, 5, and 6

Shrub stands are most common on south slope aspects and meadow margins throughout the District. Mountain mahogany is the dominant shrub species in the northern two-thirds and oakbrush is dominant in the southern one-third of the District. Areas where conifer is aggressively regenerating are also classified as shrublands based primarily on the density and height of the growth. Deciduous riparian zones along creek beds and slope drainages are common throughout the area and also support shrub growth. Cottonwood, scrub willow, chokecherry, and alder are common in these zones.

Shrub stands in the region are classified as FBFM 4 (mature brush, greater than 6 feet tall, dense woody surface fuel), FBFM 5 (young brush, less than 6 feet tall, clean litter), and FBFM 6 (intermediate brush, older than FBFM 5, less dense than FBFM 4).

It should be noted that shrub vegetation typically constitutes higher-moisture woody plants associated with low to moderate fire behavior. However, prolonged drought experienced in recent years lowers the live fuel moisture content in plant stems, producing extreme fire behavior under favorable weather conditions.

Timber Litter and Understory, FBFMs 8, 9, and 10

Forest composition in the county is strongly influenced by elevation and slope aspects, which are directly related to the available soil moisture. Ponderosa pine favors drier south-facing aspects, while Douglas fir, Lodgepole pine, and spruce favor moister and cooler north-facing aspects. Lodgepole pine is more common in elevations above 8,000 feet, but species commonly mix on transitional slope aspects. Fire exclusion has allowed Douglas fir to become disproportionately dominant in some areas. The continuous forest canopy, most common at higher elevations and north-facing aspects, often prohibits live surface fuels from taking hold. In some mature and over-mature closed canopy conifer stands, the understory is devoid of live surface fuel but thick with woody timber litter from downed trees and ladder fuels.

FBFMs in timber are classified according to the surface fuels that accumulate in the absence of a dominant live understory. FBFM 8 is associated with all short-needle conifer species including Douglas fir, Lodgepole pine, and a variety of spruce; the long needles of ponderosa pine characterize FBFM 9; and FBFM 10 is associated with forest floors that are thick with naturally occurring downed timber in a mature or overmature stand.

In normal weather conditions, fire behavior in these timber fuel models at higher elevations is generally characterized by understory surface fires fueled by timber litter. Occasional isolated torching or crown runs may occur, but fire behavior is generally present on the ground. Under extreme weather conditions, these same fuel models have the capacity to “go nuclear.” Crown runs through dense, unbroken canopy that may extend for miles.

Mountain Pine Beetle

The following mountain pine beetle information was presented to the Front Range Fuels Treatment Partnership Roundtable, Golden, CO, January 23, 2008.

More than a dozen leading research experts from the western US and Canada met over three days last week, to assess the status of our scientific knowledge of Lodgepole pine ecology and fire behavior about the mountain pine beetle epidemic. Their focus was on Colorado and southern Wyoming, but they also examined knowledge from many other Lodgepole pine areas where mountain pine beetle epidemics occur.

The science team, led by Dr. Merrill R. Kaufmann (emeritus scientist, Rocky Mountain Research Station) and Mike Babler (fire initiative program manager, The Nature Conservancy), reached consensus on a series of points:

- Not all Lodgepole pine forests are the same. Some forests are pure Lodgepole pine established after large fires decades or centuries ago. Others are mixtures with subalpine species such as Engelmann spruce, subalpine fir, and aspen at higher elevations or with mixed conifer species such as Ponderosa pine, Douglas-fir, and aspen at lower elevations. Each type of forest has unique features of ecology and fire behavior. And Lodgepole pine trees in all three types are vulnerable to attack by mountain pine beetles.

- Forests are living systems subject to constant change. It is normal and expected that many natural agents change our forests over time, including mountain pine beetles, fire, and wind. While forests losing many trees to insect attack will never look the same in our lifetime, healthy and vigorous forests will undoubtedly return in most locations.

- Lodgepole pine will not disappear from the southern Rocky Mountains. The make-up of our forests will change where mountain pine beetle causes high mortality. But we will continue to have forests dominated by or including Lodgepole pine, and these forests will provide valuable ecological services and aesthetic and recreational benefits.

- Active vegetation management is unlikely to stop the spread of the current mountain pine beetle outbreak, because the beetles are so numerous and spreading so rapidly that they may simply overwhelm any of our efforts. However, judicious vegetation management between outbreak cycles may help mitigate future bark-beetle caused tree mortality in local areas.

- Though they are infrequent, large intense fires with extreme fire behavior are characteristic of Lodgepole pine forests, especially during very dry and windy conditions. Such fires are a natural way for Lodgepole pine to be renewed and are largely responsible for extensive pure Lodgepole pine forests.

- In forests killed by mountain pine beetles, future fires could be more likely than fires before the outbreak. Large intense fires with extreme fire behavior are again possible. While more research is needed to learn in what ways and how long the fuels and fire environment are altered by the beetles, the protection of communities and other values at risk continues to be imperative.

- Mountain pine beetle outbreaks are not likely to cause increased erosion, because they do not disturb the soils or reduce protective ground cover. In areas of high tree mortality, streamflow may increase, and the timing of water delivery may be changed for decades because of reduced canopy interception of precipitation and reduced water uptake by the trees.

- Climate changes will most likely contribute to substantial forest changes in the decades ahead. Given the climate changes in the last 20 years and projected changes for the next several decades, large fires and other natural disturbances are anticipated in many forests of Colorado and southern Wyoming. These large disturbances and other changes in growing conditions will likely contribute to restructuring many forest lands

The effects of Weather, fuel type, and topography on fire behavior

Fire hazards present a considerable risk to vegetation and wildlife habitats. Short-term loss caused by a wildfire can include the destruction of timber, wildlife habitat, scenic vistas, and watersheds. Long-term effects include smaller timber harvests, reduced

access to affected recreational areas, and destruction of cultural and economic resources and community infrastructure. Vulnerability to flooding increases due to the destruction of watersheds. The potential for significant damage to life and property exists in areas designated as wildland urban interface (WUI) areas, where development is adjacent to densely vegetated areas.

Generally, there are three major factors that sustain wildfires and predict a given area's potential to burn. These factors are fuel, topography, and weather.

- **Fuel** – Fuel is the material that feeds a fire and is a key factor in wildfire behavior. Fuel is generally classified by type and by volume. Fuel sources are diverse and include everything from dead tree needles, leaves, twigs, and branches to dead-standing trees, live trees, brush, and cured grasses. Structures such as homes and associated combustibles are also potential fuel sources. The type of prevalent fuel directly influences the behavior of wildfire. Light fuels such as grasses burn quickly and serve as a catalyst for fire spread. "Ladder fuels" are fuels low to the ground that can spread a surface fire upward through brush and into treetops. These fires, known as crown fires, burn in the upper canopy of forests and are nearly impossible to control. The volume of available fuel is described in terms of fuel loading. Many parts of the planning area are extremely vulnerable to wildfires, as a result of dense vegetation combined with urban interface living. Non-native species have become invasive in the area, specifically, Tamarisk and Russian Olive. These species burn readily and pose a threat to homes and other structures in the lower reaches of the county and into municipalities.

- **Topography** – An area's terrain and land slopes affect its susceptibility to wildfire spread. Both the fire intensity and the rate of spread increase as slope increases due to the tendency of heat from a fire to rise via convection. The arrangement and types of vegetation throughout a hillside can also contribute to increased fire activity on slopes. In addition, topography impacts the ability of firefighters to combat the blaze by hampering access for equipment, supplies, materials and personnel.

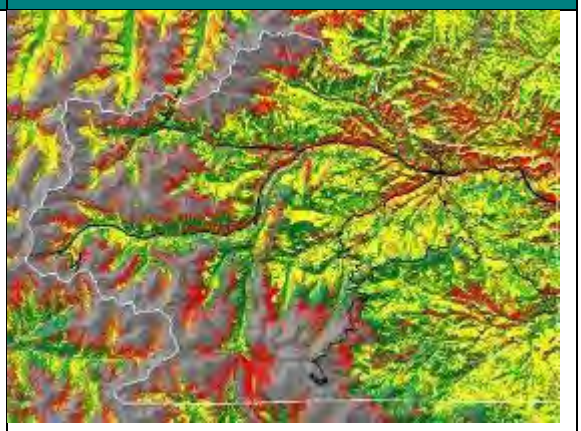
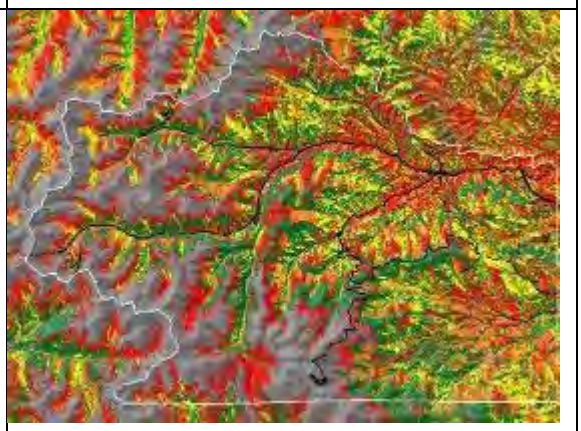
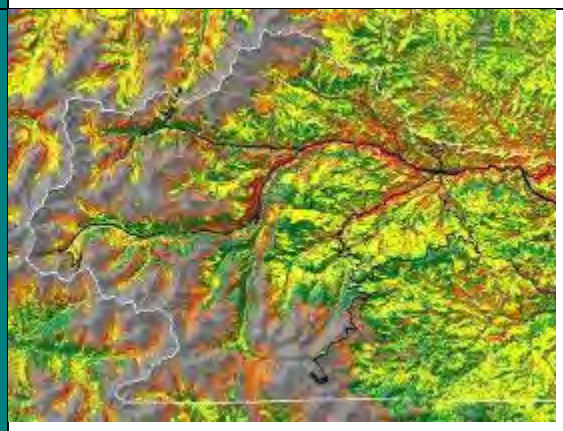
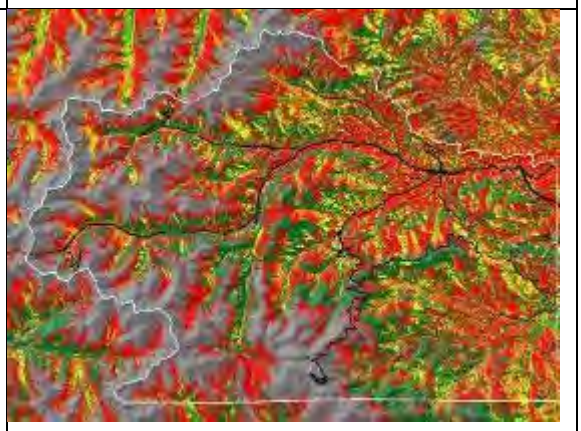
- **Weather** – Weather components such as temperature, relative humidity, wind, and lightning also affect the potential for wildfires. High temperatures and low relative humidity dry out the fuels that feed wildfire, increasing the odds that fuel will more readily ignite and burn more intensely. Wind is the most treacherous weather factor. The greater the wind, the faster a fire will spread and the more intense it will be. In addition to wind speed, wind shifts can occur suddenly due to temperature changes or wind interaction with topographical features such as slopes or steep hillsides. Lightning also ignites wildfires, which are often in terrain that is difficult for firefighters to reach. Drought conditions contribute to wildfire vulnerability and susceptibility. During periods of drought, low fuel moisture and lack of precipitation increase the threat of wildfire. There are no known effective measures for human mitigation of weather conditions. Careful monitoring of weather conditions that drive the activation and enforcement of fire-safety measures and programs, such as bans on open fires, are ongoing weather-related mitigation activities.

Wildfires are of significant concern throughout Colorado. According to the Colorado State Forest Service, vegetation fires occur annually; most are controlled and contained early with limited damage. Damage can be extensive for ignitions that are not readily contained and become wildfires. According to the 2018 State of Colorado Hazard Mitigation Plan, a century of aggressive fire suppression combined with drought cycles and changing land management practices has left many of Colorado's forests, including those in Clear Creek County, unnaturally dense and ready to burn. Further, the threat of wildfire and potential losses is constantly increasing as human development and population increase, and the Wildland Urban Interface (WUI) expands. Another contributing factor to fuel loads in the forest is standing trees killed by pine bark beetles, which have been affecting the forests of Colorado since 2002, becoming more widespread and a serious concern. According to the 2021 Clear Creek County Hazard Mitigation Community Survey, Clear Creek County residents believe that wildfire is the greatest threat to their safety.

Wind is an important weather element in fire behavior, as even small changes in wind speed can significantly impact fire intensity, spread rate, and potential for crown fire development. Two wind scenarios were used for modeling fire behavior for CCC. One was based on typical summer conditions where surface wind direction is diurnal, flowing upslope and up-canyon during the day. The other wind scenario assumed a strong downslope wind that overpowered the weaker diurnal winds, such as what happens when a Chinook wind situation develops in the Front Range of Colorado. Three predictive fire behavior output models are generated from the analysis:

- Flame Length (FL)
- Rate of Spread (ROS)
- Crown Fire (CF)

Flame length (FL) is the distance from the base of the flame (the fuel bed) to the tip of the flame in a fire burning in surface fuels (surface fire) (Figures 15, 16, 17).

	Diurnal Winds	Chinook WInds
50th Percentile Weather		
90th Percentile Weather		
97th Percentile Weather		
Legend	 **(In feet)**	

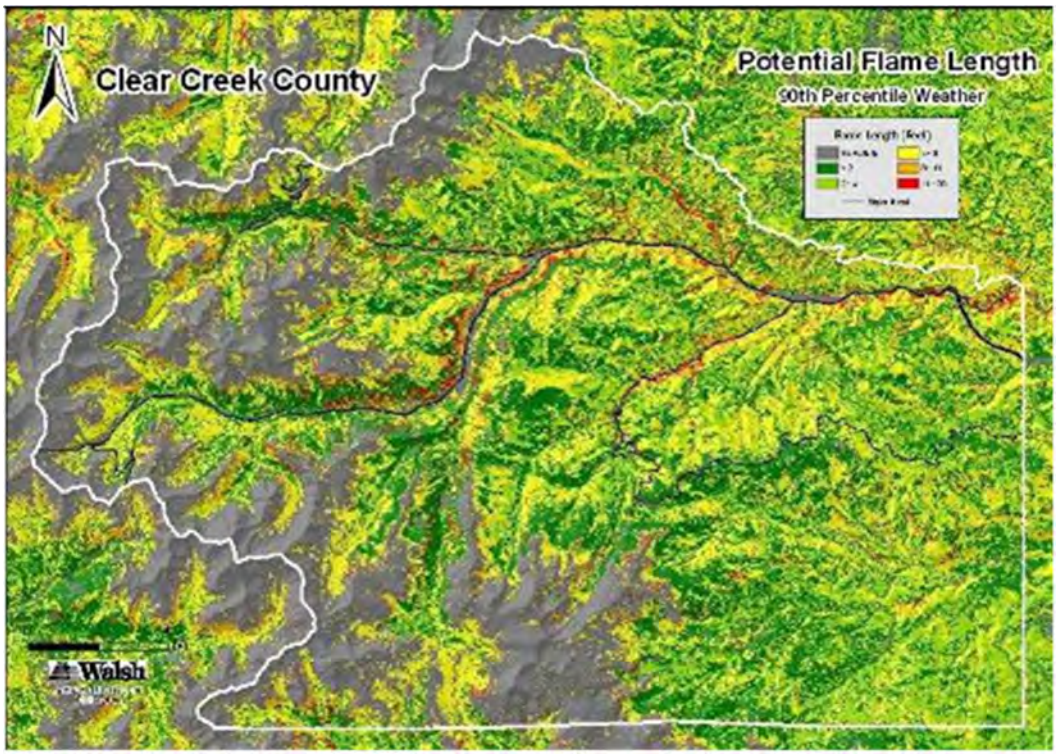


Figure 16. Potential Flame Length, 90th Percentile Weather, Diurnal Winds

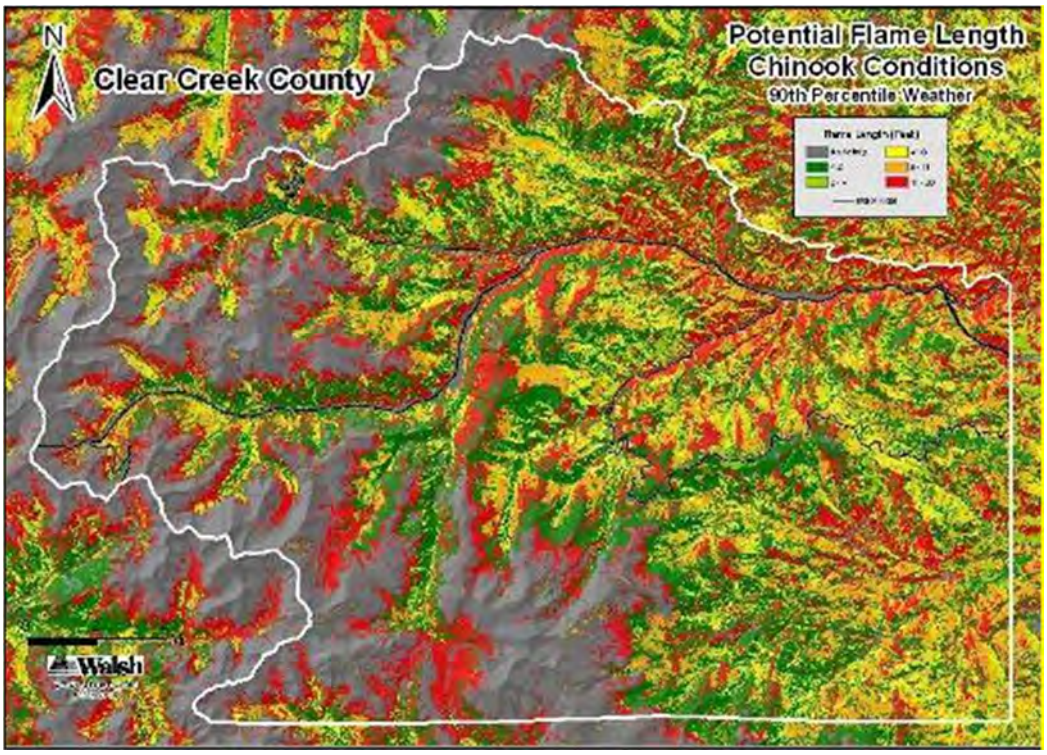


Figure 17. Potential Flame Length, 90th Percentile Weather, Chinook Winds

The **rate of spread** (ROS) is the forward rate of movement at the active front (head) of a surface fire (Figures 18, 19, 20).

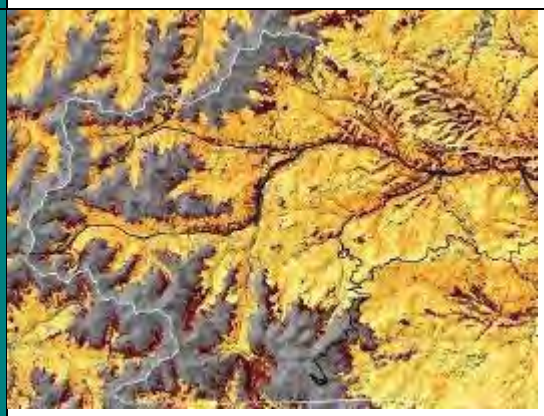
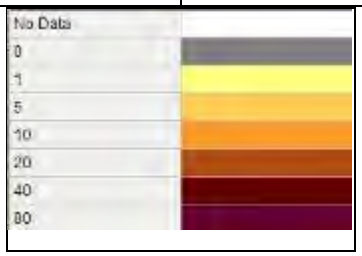
	Diurnal Winds	Chinook Winds
50th Percentile Weather		
90th Percentile Weather		
97th Percentile Weather		
Legend	 **(In Chains per hour)**	

Figure 18. Rate of Spread

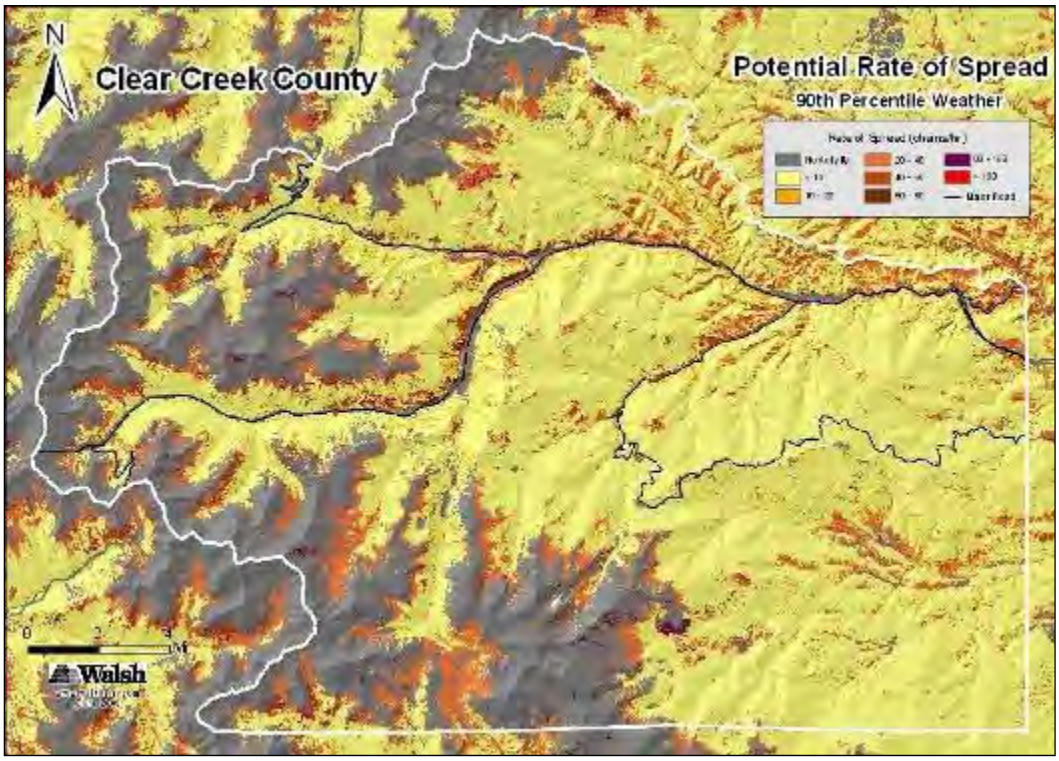


Figure 19. Rate of Spread, 90th Percentile Weather, Diurnal Winds

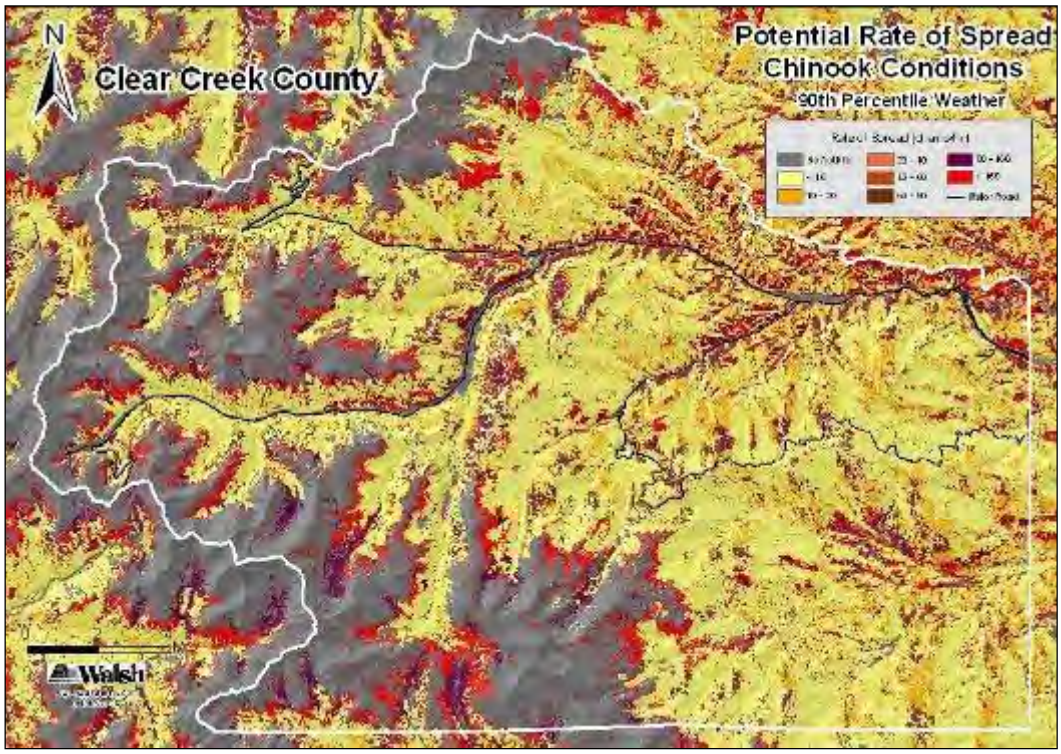
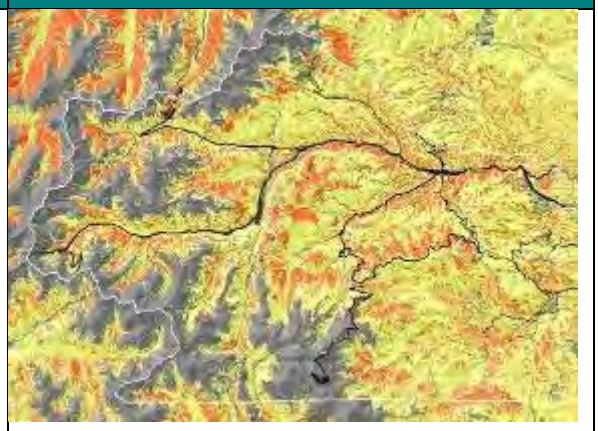
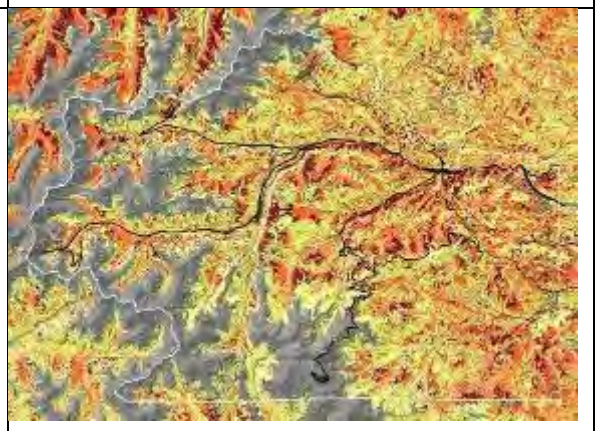
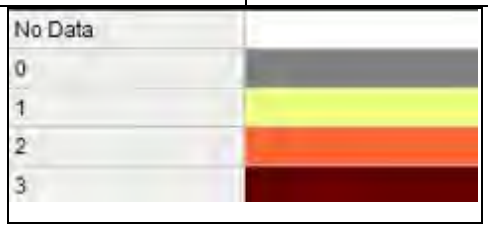


Figure 20. Rate of Spread, 90th Percentile Weather, Chinook Winds

Crown fire (CF) potential is the movement of fire into and through the tree canopy. Crown fires typically move rapidly, and are very intense, with flaming fronts up to 100-200 feet in height (Figures 21, 22, 23).

	Diurnal Winds	Chinook Winds
50th Percentile Weather		
90th Percentile Weather		
97th Percentile Weather		
Legend		

(1-surface, 2-passive, 3-active)

Figure 21 Crown Fire Potential

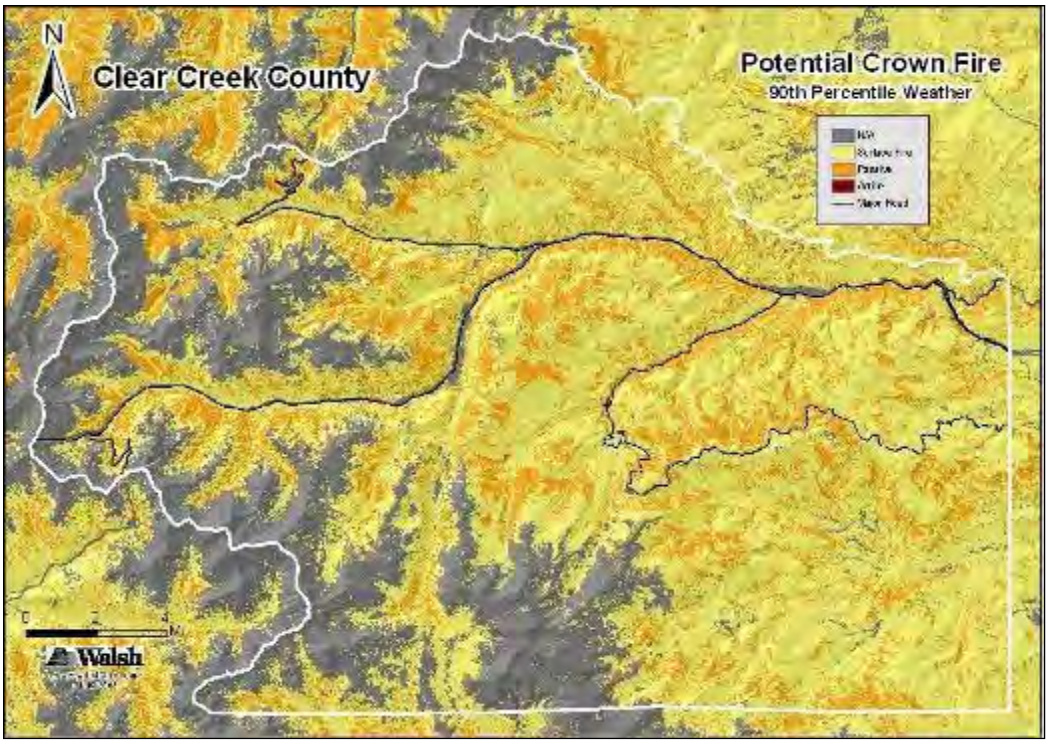


Figure 22. Potential Crown Fire, 90th Percentile Weather, Diurnal Winds

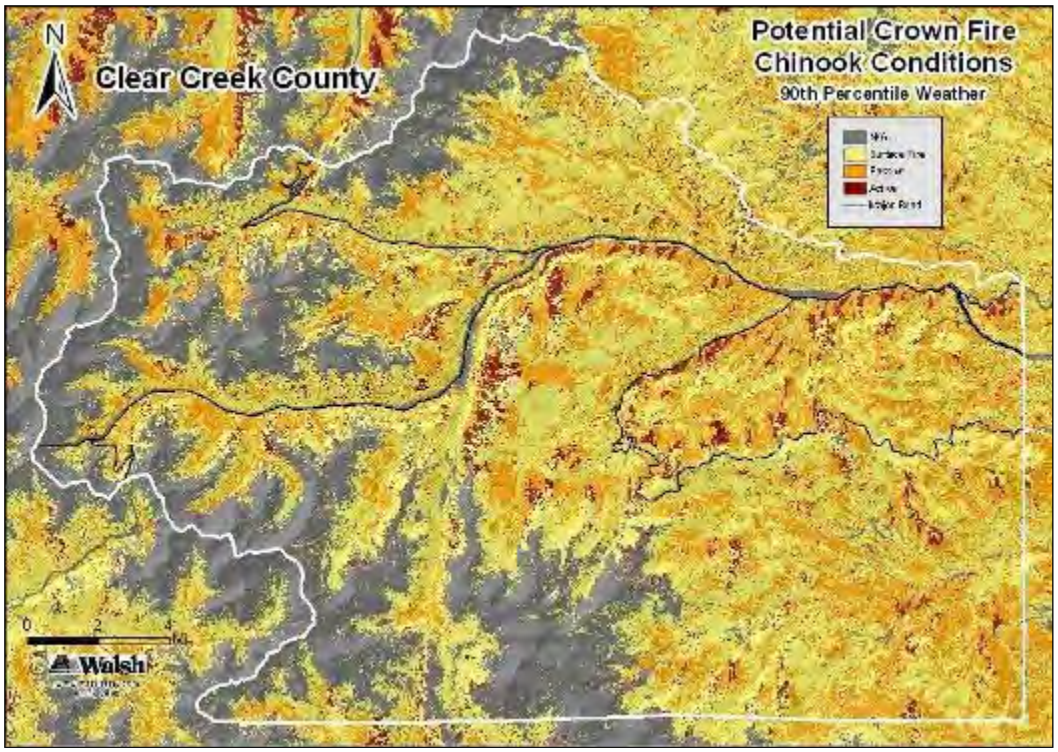


Figure 23 Potential Crown Fire, 90th Percentile Weather, Chinook Winds

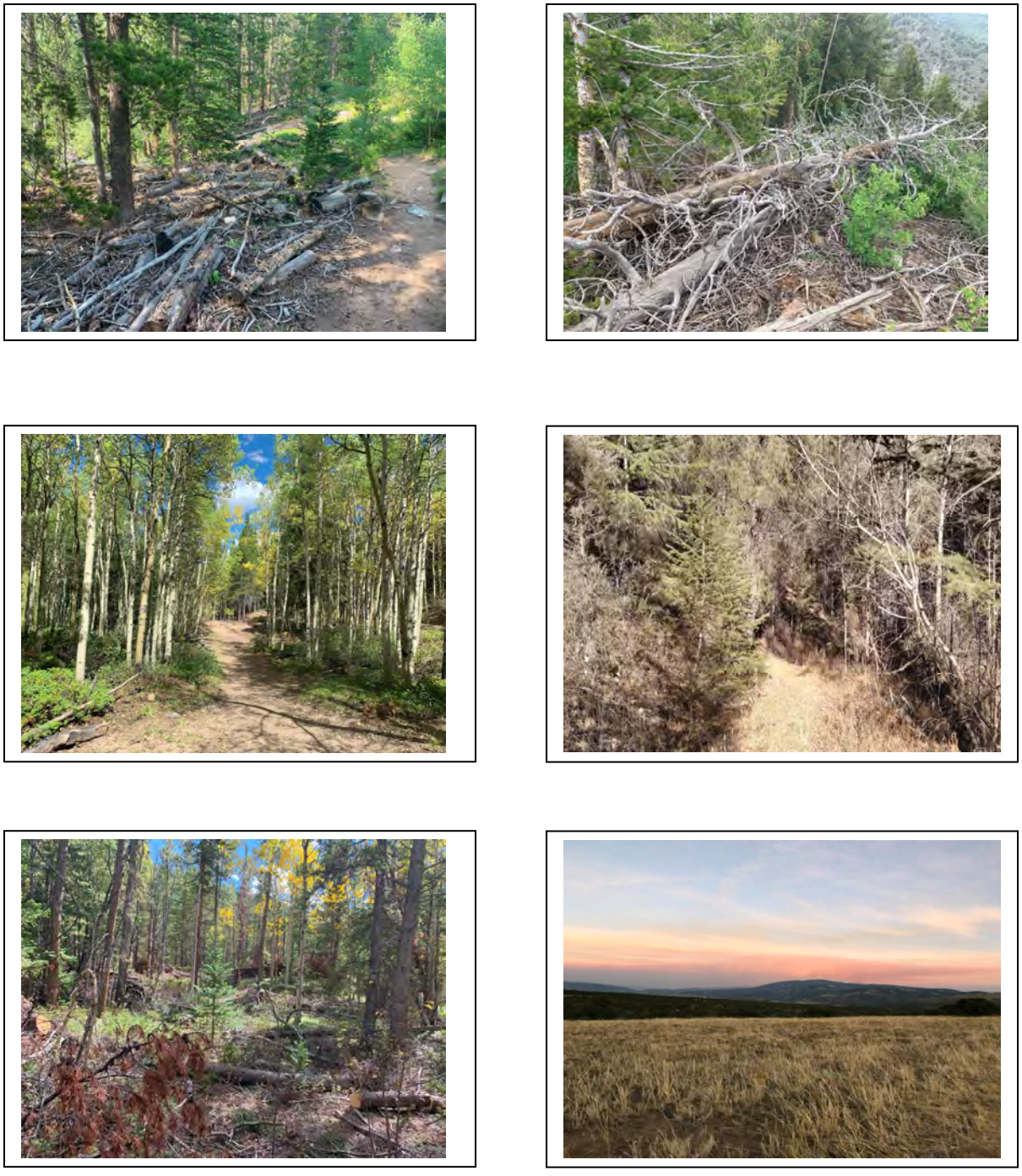
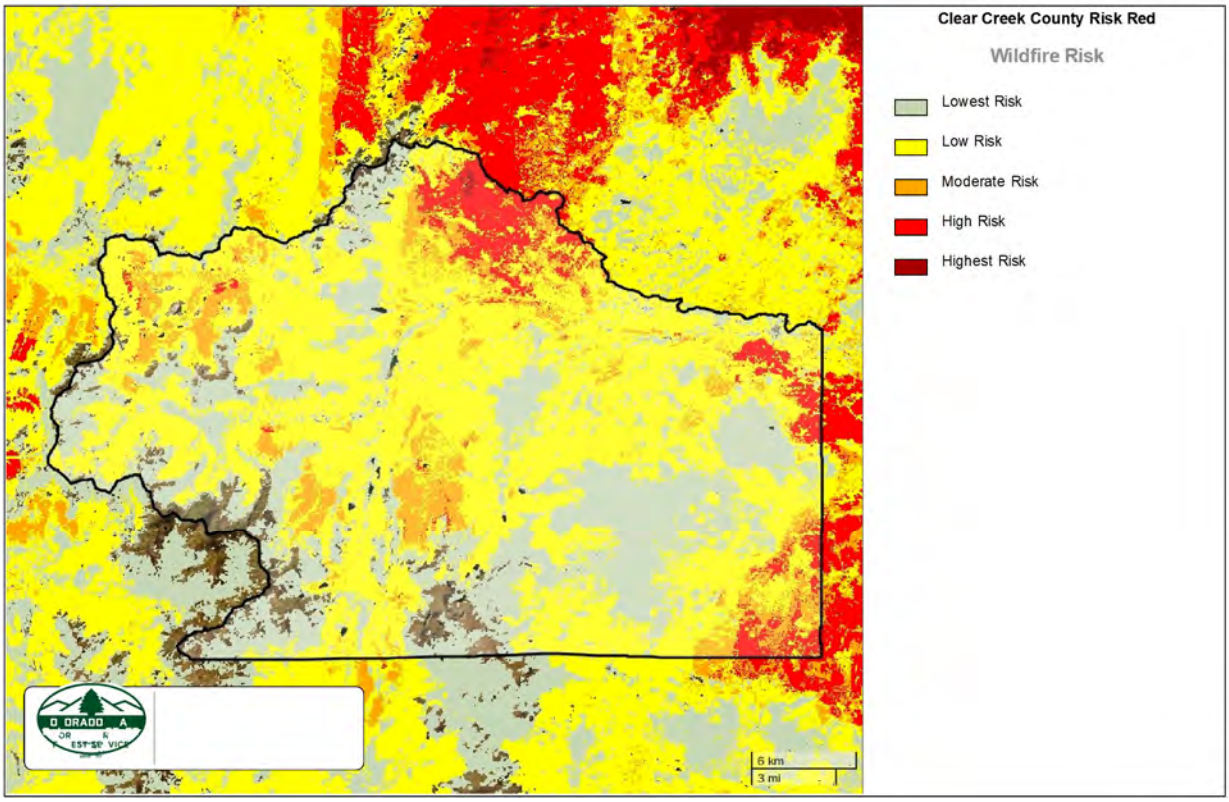
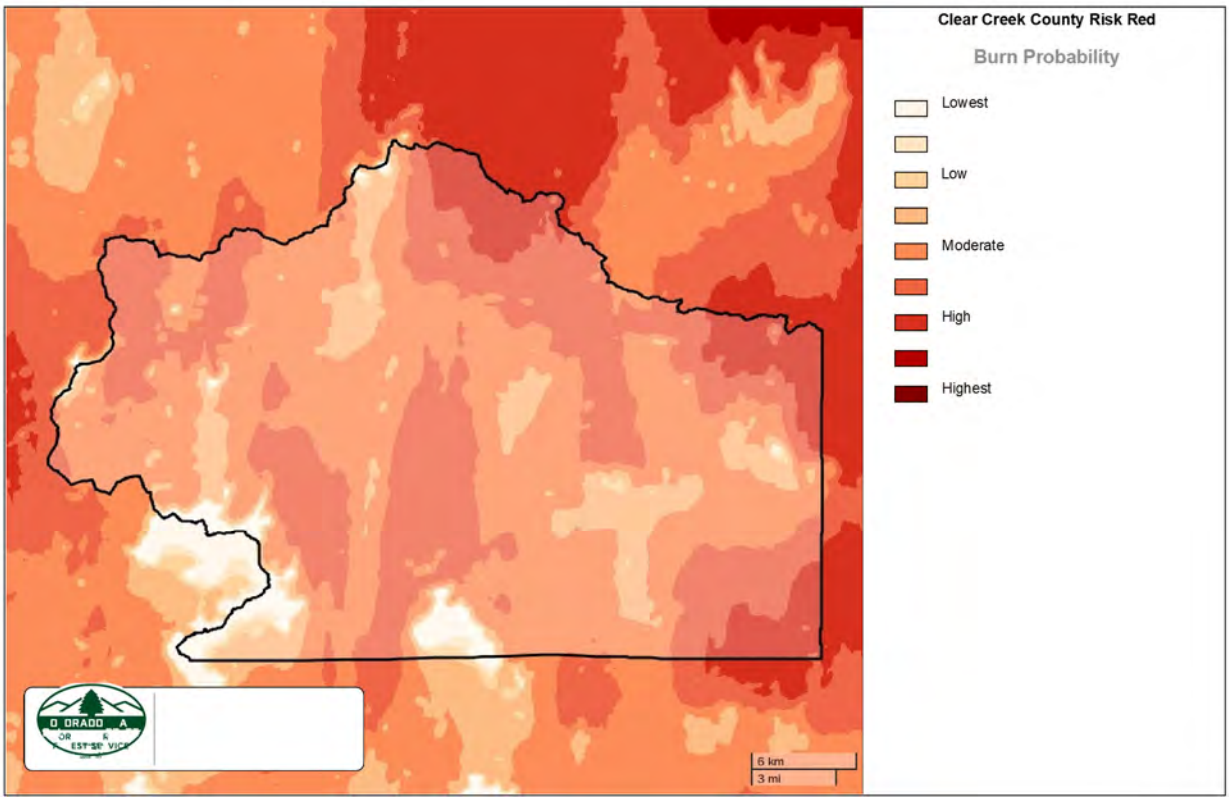


Figure 2.e.1. *Fuel type and fuel loads greatly influence fire behavior, intensity, and rate of spread. Fuel loads are variable across Clear Creek Fire Authority, ranging from these examples above. [Options for pictures: Dense forests with abundant ladder fuels, An open ponderosa pine forest with widely spaced trees and few ladder fuels, Grasslands with when vegetation is continuous and dry, etc.]*

Photo credit: CCFA


Clear Creek County Risk Red
Wildfire Risk
Lowest Risk
Low Risk
Moderate Risk
High Risk
Highest Risk
6 km
3 mi


Clear Creek County Risk Red
Burn Probability
Lowest
Low
Moderate
High
Highest
6 km
3 mi

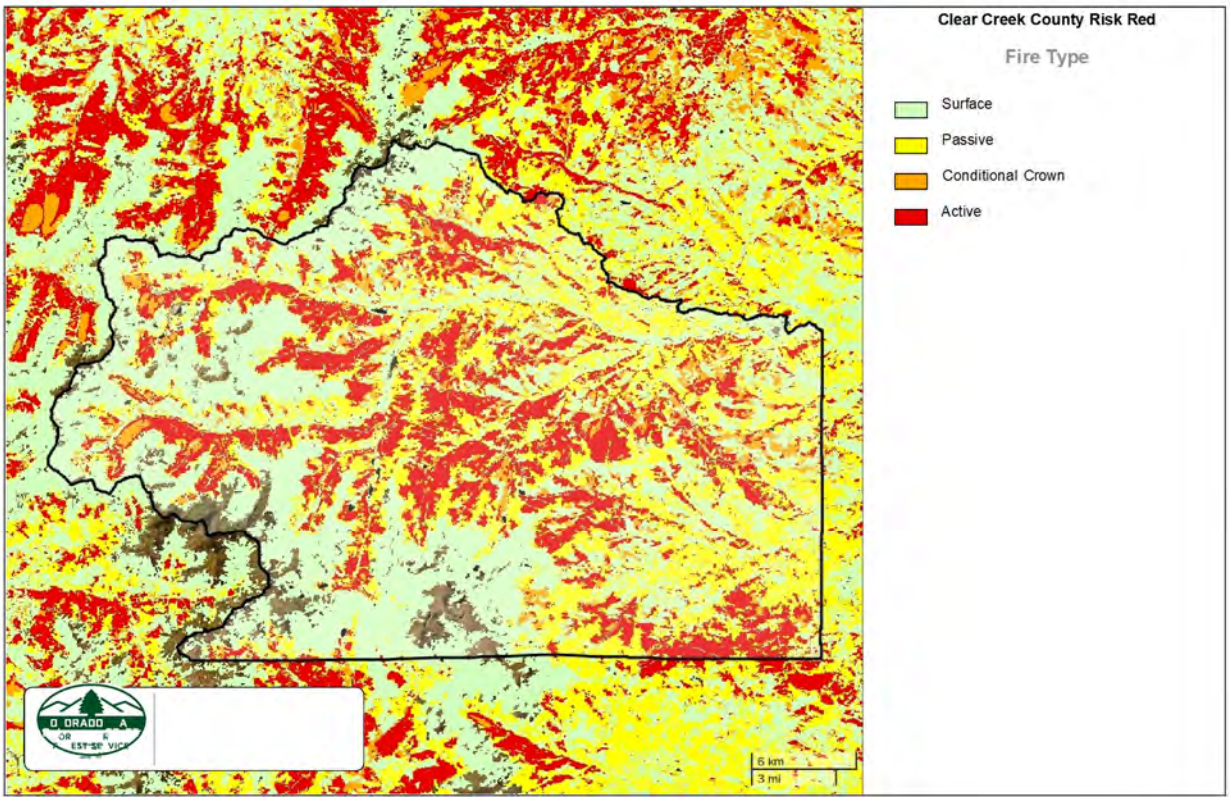


Figure 2.e.2. Map of Wildfire Risk, Burn Probability, and Fire Type (CSFS Forest Atlas)

Take Away Message

Clear Creek is at risk for large, high-severity wildfires due to dense forest conditions, ground fuel loading, dry and hot weather, and strong, gusty winds. Increasing drought and warming temperatures exacerbate wildfire risk in the area. **Residents in Clear Creek must prepare for large wildfire events. Proactive work is imperative to protect lives and property.**

2.f. Fuel Treatment History in and Around Clear Creek Fire Authority

Fuel treatments reduce the amount of fuel in strategic locations, reducing fire risk to nearby communities and creating tactical opportunities for wildland firefighters to engage with wildland fires. (**Figure 2.f.1**).

An important component of this CWPP was identifying locations for fuel treatments to protect the community. **Section 4** outlines these priority locations and the land management agency that will lead these efforts in the coming years.

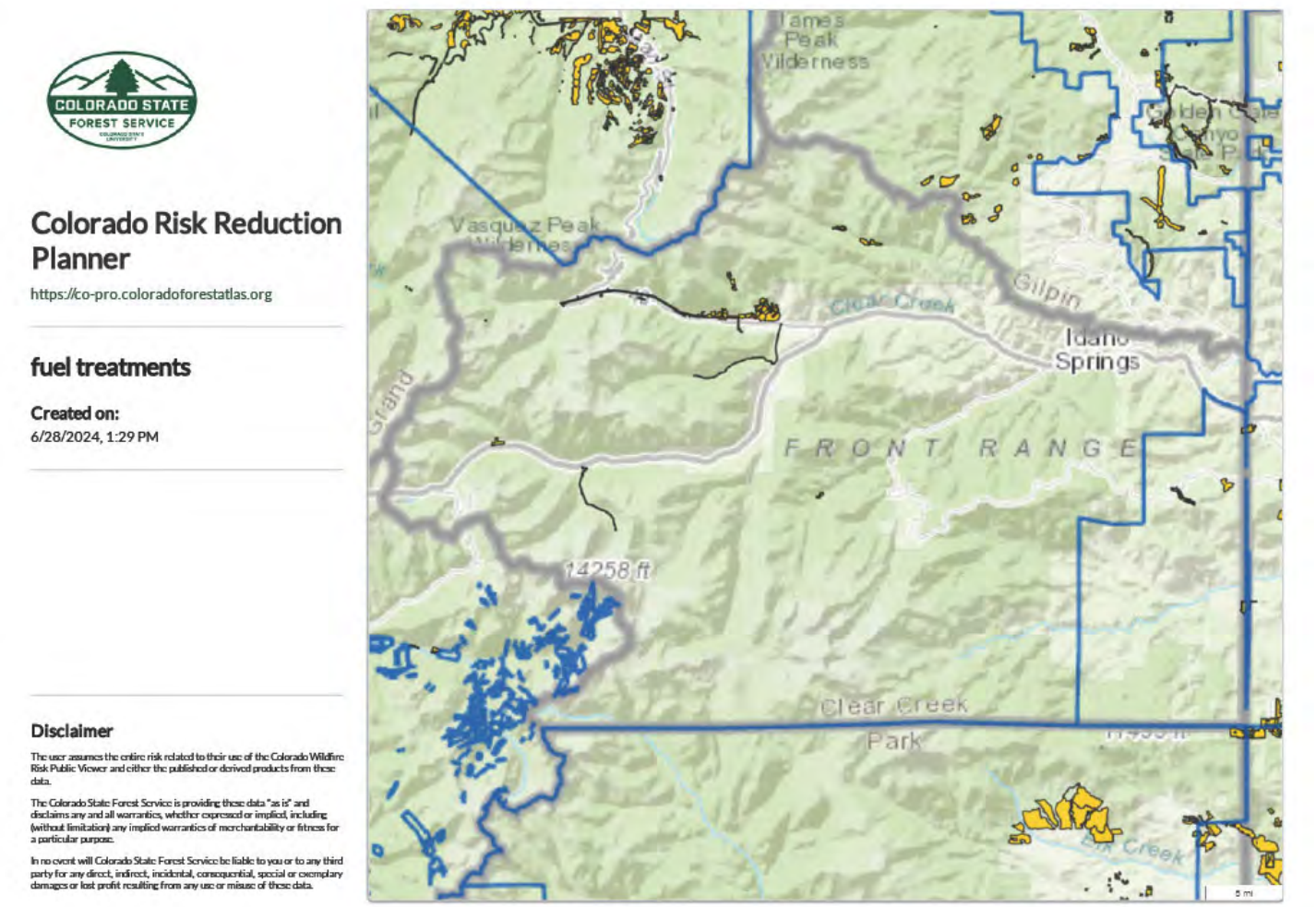


Figure 2.f.1. Locations of forest management treatments and wildfires in and around Clear Creek Fire Authority from [insert time span] conducted by [ex: Colorado Parks and Wildlife, Colorado State Forest Service, etc.]

Source: Colorado Forest Service

3. Becoming a Fire Adapted Community

It is recommended that Clear Creek Fire Authority, HOAs, and residents embrace the concept of Fire Adapted Communities (FAC), which is defined by the National Wildfire Coordinating Group as "a human community consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire". This concept can guide residents, fire practitioners, and communities through a holistic approach to become more resilient to fire (**Figure 3.1.**).

Your community's CWPP sets the stage for fire adaptation, and the next step is on-the-ground action and an ongoing commitment to risk mitigation at all levels of the community, from individual homeowners to neighborhoods and HOAs to Clear Creek Fire Authority, to land managers and other partners. This section of the CWPP includes recommendations and resources for mitigating wildfire risk and enhancing emergency preparedness. Clear Creek Fire Authority and public land managers have an important role to play in implementing the recommendations in this CWPP, and they have made commitments to take on-the-ground action as outlined in **Section 4.**

Individual homeowners, neighborhoods, and HOAs also have a vital role to play in addressing shared wildfire risk. Action and community-building centered around mitigation have reduced wildfire risk and increased community resilience across the Mountain West. Mitigation work by residents can spur mitigation by their neighbors (Brenkert-Smith et al., 2013). The cumulative impact of linked defensible space across private properties can improve the likelihood of home survival and protect firefighters during wildfire events (Jolley, 2018; Knapp et al., 2021).

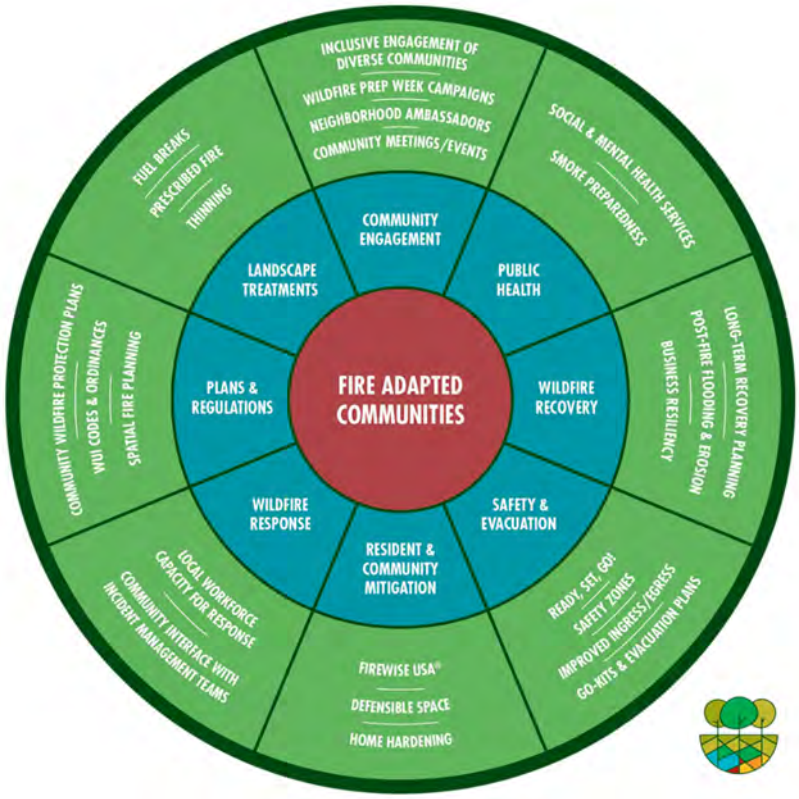


Figure 3.1. *The Fire Adapted Communities graphic provides specific programs and activities that communities can take to reduce their wildfire risk and increase their resilience*

Source: Fire Adapted Community Learning Network.

3.a. Individual Recommendations

Mitigate the Home Ignition Zone

During catastrophic wildfires, property loss happens mostly due to conditions in the **home ignition zone** (HIZ). The home ignition zone includes your home and other structures (e.g., sheds and garages) and the area within 100 feet of each structure. Firefighter intervention, adequate defensible space, and home hardening measures were common factors for homes that survive major wildfires (IIBHS, 2019; Maranghides et al., 2022) Research following the 2018 CA Camp Fire showed that homes were more likely to burn down when they were close to other structures that had also burned, when they had vegetation within 100 meters of the home, and when they had combustible materials (firewood or propane tanks) near the home (Knapp et al., 2021).

You can increase the likelihood that your home will survive a wildfire and help protect the safety of firefighters by creating defensible space, replacing, or altering building materials to make your home less susceptible to ignition, and taking steps to increase firefighter access along your driveway.

Residents need to work together as a community to mitigate shared wildfire risk in the HIZ. Structure-to-structure ignition is a major concern in WUI communities and can cause substantial property loss. Neighbors can increase their homes' chances of survival during a wildfire if they work together to reduce hazards in their overlapping defensible space.

Defensible space is the area around a building where vegetation, debris, and other types of combustible fuels have been treated, cleared, or reduced to slow the spread of fire and reduce exposure to radiant heat and direct flame. It is encouraged that residents develop defensible space so that during a wildfire their home can stand alone without relying upon limited firefighter resources due to the great reduction in hazards they have undertaken.



Defensible space allowed firefighters to protect this home during the 2016 Cold Springs Fire near Nederland, CO. Photo credit: Wildfire Partners.

Home hardening is the practice of making a home less likely to ignite from the heat or direct contact with flames or embers. It is important to remember that embers can ignite homes even when the flaming front of a wildfire is far away. Home hardening involves reducing this risk by changing building materials, installation techniques, and structural characteristics of a home. Home hardening

measures are particularly important for WUI homes; 50% to 90% of homes ignite due to embers rather than radiant heat during wildfires (Babrauskas, 2018; Gropp, 2019).

Fortunately, many Clear Creek Fire Authority residents have already started taking actions to mitigate their home ignition zone. (**Figure 3.a.1**) [*Ex.: Over X% of residents who responded to the CWPP survey have removed trees or low limbs on their property, and about two-thirds of residents annually remove debris around their homes. Only a third have replaced their roofs with less flammable materials, but most newer homes in Clear Creek Fire Authority already have ignition-resistant roofs.]* Residents should follow the defensible space and home hardening recommendations outlined below to continue increasing their home's chances of surviving a wildfire.

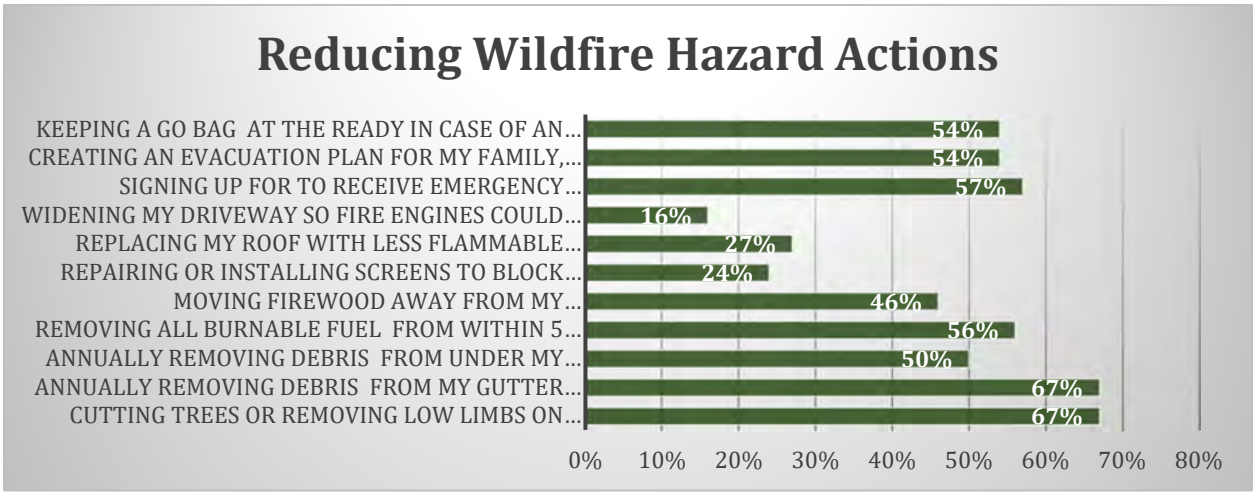


Figure 3.a.1. *Percentage of Clear Creek Fire Authority residents who responded to the CWPP survey and have completed different actions to mitigate risk in their home ignition zone.*

See Appendix C for a full summary of survey findings.

s

Defensible Space

Defensible space creates a buffer between your home and grass, trees, and shrubs that could ignite during a wildland fire. Defensible space can slow the spread of wildfire, prevent direct flame contact, and reduce the chance that embers will ignite material on or near your home (Hakes et al., 2017). Substantially reducing vegetation within the HIZ and removing vegetation that overhangs decks and roofs can reduce structure loss, especially for homes on slopes (Syphard et al., 2014).

Do not count on firefighters staying to defend your home—your home should be able to survive a wildfire on its own. There are never enough firefighters to stay and defend every single home during large incidents. Properties that are not defensible will not often receive firefighter resources due to unsafe conditions and the higher likelihood of home loss.

Defensible space is divided into multiple zones around a home, and recommended practices vary among zones. The Colorado State Forest Service (CSFS) defines zone one as 0 to 5 feet from the home, zone two as 5 to 30 feet from the home, and zone three as 30 to about 100 feet from the home [**Figure 3.a.2**.]. Some organizations call zone one the "noncombustible zone" (0 to 5 feet from the home) and zone two the "lean, clean, and green zone" (5 to 30 feet from the home).

Property owners should establish defensible space around each building on their property, including campers / RVs, detached garages, storage buildings, barns, and other structures. RVs are highly

flammable and can emit embers that might ignite nearby homes and vegetation. Removing all vegetation under and around campers in HIZ 1 is crucial. Campers / RVs, boats, detached garages, storage buildings, barns, and other large structures should be placed at least 50 feet away from primary structures to prevent structure-to-structure fire spread (Maranghides et al., 2022).

A 2021 study from the University of Colorado-Boulder showed that homeowners living in the WUI in Bailey, CO, typically underestimated the level of risk their home is at due to wildfire, and tended to overestimate the amount of work they have done to protect their property (Simpkins, 2021). Make sure you are informed about best practices for protecting your home. See **Table 3.a.1** and the CSFS publication The Home Ignition Zone for recommendations. **Section 4.c.** includes specific defensible space recommendations by forest type for HIZ zone 3.



Some homes in the Clear Creek Fire Authority have exemplary defensible space with [ex.: mowed grass near structures, trees limbed and not overhanging roofs, non-flammable barriers, etc.] within Zone 1.

Photo credit: CCFA.

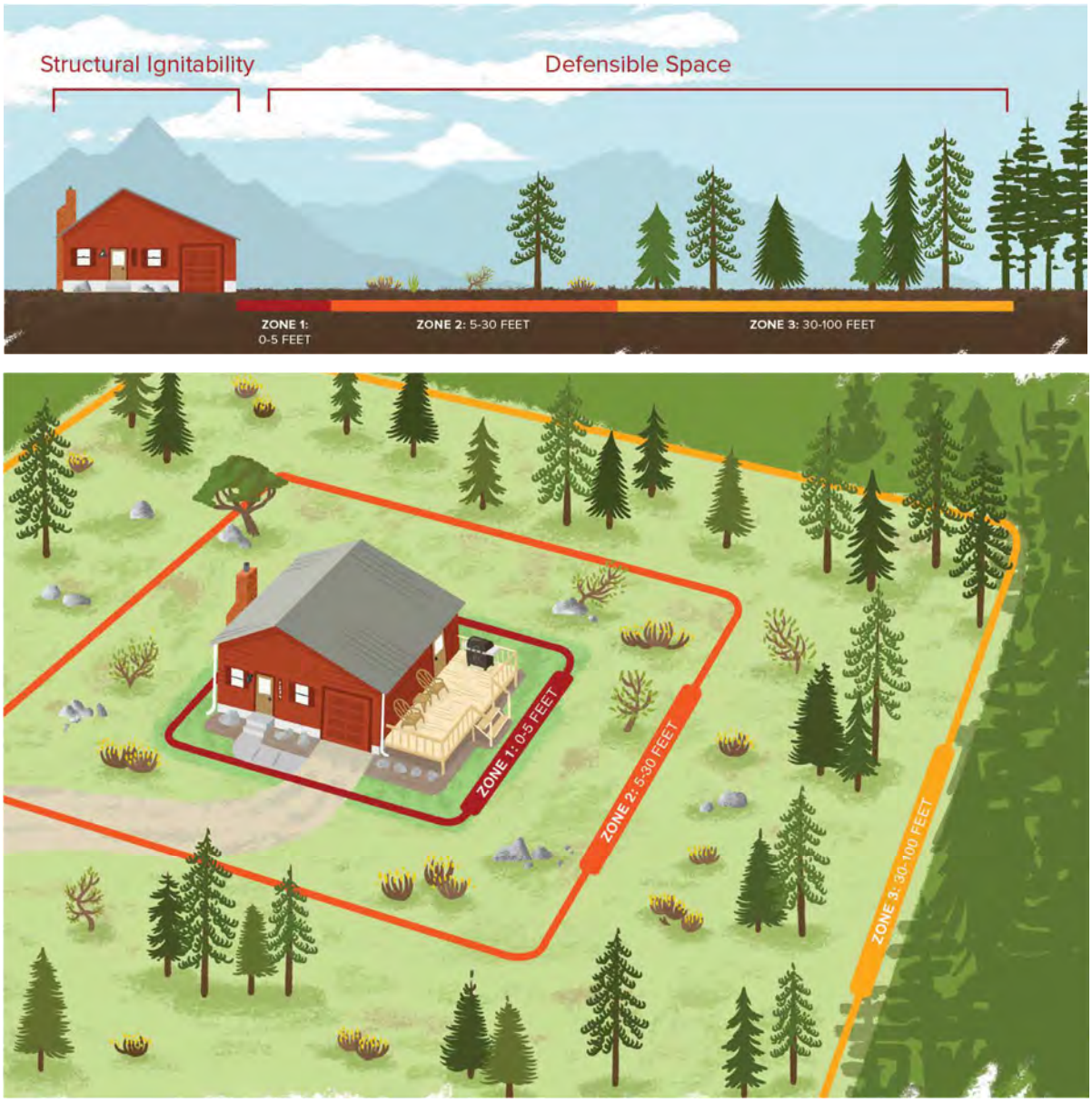


Figure 3.a.2. *Home ignition zones recommended by the Colorado State Forest Service. Using ignition-resistant building materials and removing burnable fuel around primary structures, outbuilding such as sheds, and campers / RVs is crucial for increasing your home's chance of surviving a wildfire and creating safe conditions for wildland firefighters.*

Source: Colorado State Forest Service, The Home Ignition Zone.

Table 3.a.1. *Home ignition zone recommendations based on the CSFS publication The Home Ignition Zone. This is not an all-inclusive list of activities.*

Zone 1: 0 to 5 feet from your home – the noncombustible zone.
Goal: Prevent flames from having direct contact with your home.
• Create a noncombustible border 5 feet around your home (aka, hardscaping). Replace flammable wood chips with alternatives like dirt, stone, or gravel. • Remove branches that hang over your roof and drop needles onto your roof and remove all fuels within 10 feet of the chimney. • Remove combustible materials (dry vegetation, wooden picnic tables, juniper shrubs, etc.) from underneath, on top of, or within 5 feet of decks, overhangs, windows, and doors. • Annually remove dead or dry leaves, pine needles, and dead plants withing 5 feet of your home and off your deck, roof, and gutters. Farther than 5 feet from structures, raking material will not significantly reduce the likelihood of ignition and can negatively affect other trees. • Move firewood or other combustible materials to Zone 3. • Do not use space under decks for storage.
Zone 2: 5 to 30 feet from your home – the lean, clean, and green zone.
Goal: Slow the movement of flames approaching your home and lower the fire intensity.
• Irrigate and mow grasses to 4 inches tall or less. If you are unable to irrigate, replace dry grasses with Firewise Plant Materials that are more drought tolerant and less flammable. • Remove any accumulated surface fuels such as logs, branches, slash, and mulch. • Remove all common junipers because they are highly flammable and tend to hold a layer of flammable material beneath them. Landscape with plants that have more fire-resistant attributes, like short-statures, deciduous leaves, and higher moisture content. See Firewise Plant Materials from Colorado State University Cooperative Extension for suggestions. • Remove enough trees to create at least 10 feet* of space between crowns. Measure from the outermost branch of one tree to the nearest branch on the next tree. Create even more space between trees if your home is on a slope. See **Figure 3.a.3** for how to measure crown spacing. • Favor the retention of aspen trees because this species naturally has high fuel moisture, no low branches, and smooth bark, making them less likely to ignite than conifer trees. • Remove ladder fuels under remaining trees. This is any vegetation that can bring fire from the ground up into taller fuels. • Remove limbs so branches do not hang below 6 feet above the ground, ideally not below 10 feet above the ground. See **Figure 3.a.3** for a depiction of how to measure limb height. • Keep spacing between shrubs at least 2-3 times their height. • Relocate wood piles and propane tanks to Zone 3. • Remove stressed, diseased, dead, or dying trees and shrubs. This reduces the amount of vegetation available to burn and improves forest health. • Keep shrubs at least 10 feet* away from the edge of tree branches.

Zone 3: 30 to 100 feet from your home

If you live on a slope, this zone should be larger due to the greater potential for extreme fire behavior.

Goal: Slow movement of flames, move fire to the ground, reduce ember production.

- Store firewood and propane tanks at least 30 feet away and uphill from your home and away from flammable vegetation. Store even farther away if your home is on a slope.
- Move campers / RVs, boats, detached garages, storage buildings, barns, and other large structures at least 50 feet away from your home.
- Mow or trim grasses to maximum height of 6 inches. Grasses can be taller in zone 3 than zone 2 because of the greater distance from your home, but shorter grass is always better for reducing potential flame lengths and therefore radiant heat exposure.
- Remove enough trees to create at least 6- to 10-foot spacing* between the outermost branches of remaining trees. Create even more space between trees if your home is on a slope (Error! Reference source not found.). See **Figure 3.a.3** for a depiction of how to measure crown spacing.
- Favor the retention of aspen trees because this species naturally has high fuel moisture, no low branches, and smooth bark, making them less likely to ignite than conifer trees.
- Remove limbs so branches do not hang below 6 feet above the ground, ideally not below 10 feet above the ground. See **Figure 3.a.3** for a depiction of how to measure limb height.
- Remove shrubs and saplings that can serve as ladder fuels.
- Remove heavy accumulations of dead trees and branches and piles of fallen leaves, needles, twigs, pinecones, and small branches. Thin trees to increase spacing and remove ladder fuels to reduce the likelihood of torching, crown fires, and ember production.
- Consult with a qualified forester to develop a plan to manage your property to achieve fuel reduction and other goals, such as creating wildlife habitat. Follow principles of ecological restoration as outlined in **Section 4.c.**



In Clear Creek Fire Authority there are Aspen trees that naturally have high fuel moisture, no low branches, and smooth bark, making them less likely to ignite than conifer trees.] Homeowners retain small groups of [aspen trees] in HIZ 2, and are sure to rake up dry leaves that fall onto their roof or on the ground within 5 feet of their homes.

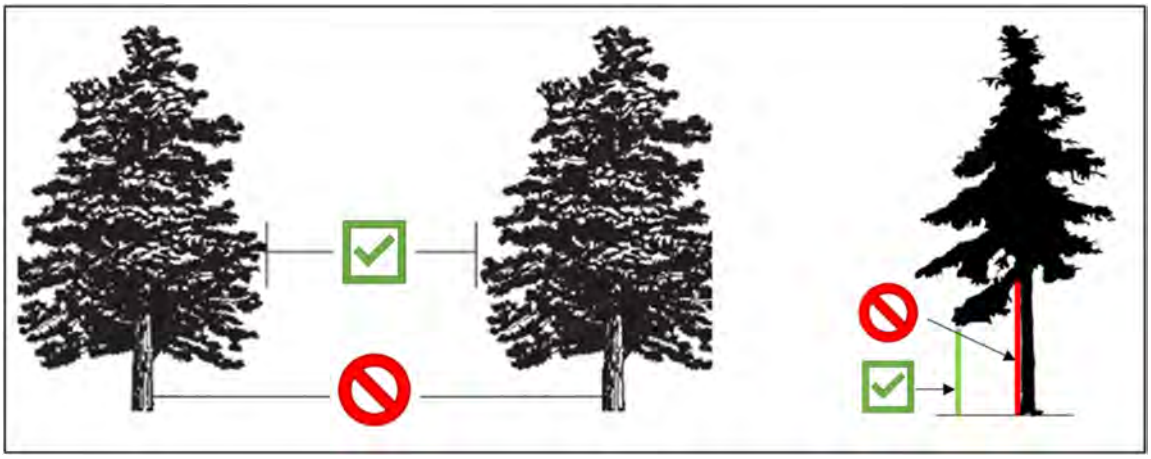


Figure 3.a.3. *Spacing between tree crowns is measured from the edge of tree crown to tree crown, NOT from tree stem to tree stem (left). Height of limbs above the ground is measured from the ground to the lowest point of the limb, NOT from where the limb attaches to the tree (right).*

Some homeowners in the WUI are concerned that removing trees will destroy the forest and reduce the aesthetic and monetary value of their property. In the Clear Creek Fire Authority, there are many dense [*ex: ponderosa pine forests that are unhealthy and greatly diverged from historical conditions that were maintained by frequent wildfires*.] The reality is that nothing will decrease the aesthetic and monetary value of your home as much as a high-severity wildfire burning all the vegetation in the community, even if your home survives the fire. Forest management can look messy and destructive in the first years following treatment; however, grasses, shrubs, and wildflowers will respond to increased light availability after tree removal and create beautiful ecosystems with lower fire risk (**Figure 3.a.4**). It might even be said that the more trees you cut, the more trees you save from wildfire.

Many property owners enjoy their land even more after conducting effective fuel treatments. Removing trees can open incredible views of mountains, rivers, and rock formations, and wildlife are often attracted to forests with lower tree densities and a greater abundance of understory plants. Reducing fuel loads and increasing the spacing between trees increases the chance that your home and your neighbors' homes will survive a wildfire, and most importantly, it increases the safety of wildland firefighters working to protect your community**.**



Figure 3.a.4. *Grasses, shrubs, and wildflowers quickly respond to increased light availability after tree removal, resulting in beautiful ecosystems with lower fire risk. The green star in each photo indicates the same tree. Image sizes vary due to the use of different cameras over the years.*

Photo credit: Jefferson Conservation District.

Home Hardening

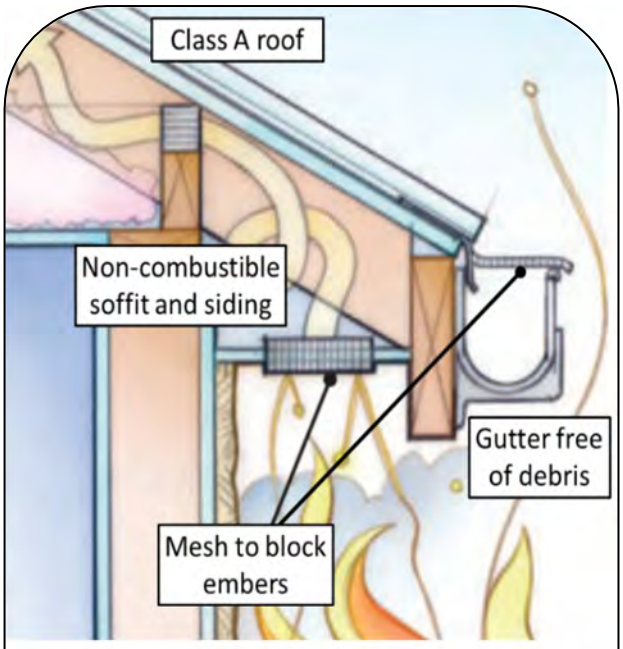
Home hardening involves modifying your home to reduce the likelihood of structural ignition. Fire not immediate to a home can still threaten the structure as long-range embers travel. Homes in denser neighborhoods are also at risk of short-range embers from nearby homes, which could lead to structure-to-structure ignitions.

Buildings cannot be made fireproof, but the chance of your home surviving wildfires increases when you reduce structural ignitability through home hardening in tandem with the creation and maintenance of defensible space. Figure 3.a.5 depicts important home hardening measures.

Roofs, vents, windows, exterior siding, decks, and gutters are particularly vulnerable to wildfires. Research on home survival during wildfires demonstrates that enclosed eaves and vent screens can reduce the penetration of wind-born embers into structures (Hakes et al., 2017; Syphard and Keeley, 2019). According to the CWPP survey, **[Discuss if residents in the area have taken these precautions].**

Multi-pane windows have greater resistance to radiant heat. Windows often fail before a home ignites, providing a direct path for flames and airborne embers to enter a home (CSFS, 2021).

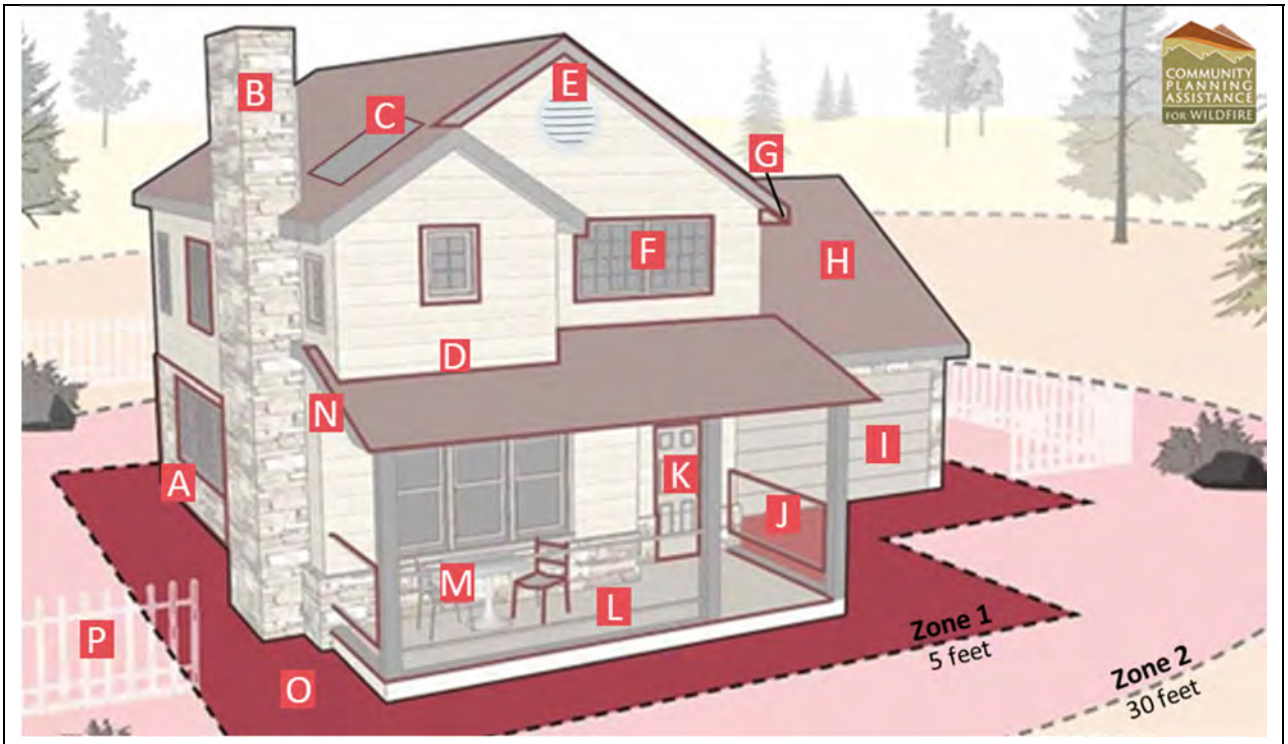
It is important to replace wood or shingle roofs with non-combustible materials[1] such as composite, metal, or tile. Ignition-resistant or noncombustible siding and decking further reduce the risk of home ignition, particularly when homes also have a 5-foot noncombustible border of dirt, stone, or gravel. Non-wood siding and decking are often more durable and require less routine maintenance.



Residents can increase their homes' chance of survival by making it harder for embers to enter and ignite their homes (image from *Healthy Building Science*).

There are many low-cost actions you can start with to harden your home (see **Table 3.a.2**). Keep home-hardening practices in mind and use ignition-resistant materials if you replace a hail-damaged roof or remodel your home.

[1] See the **Glossary** on page 106 for the definition of terms used to describe the performance of building materials when exposed to fire (e.g., wildfire-resistant, ignition-resistant, and noncombustible).



Low-cost actions:

- Cover chimneys and stovepipe outlets with 3/8th to ½ inch corrosion-resistant metal mesh.
- Minimize debris accumulation under and next to solar panels.
- Cover vent openings with 1/16th to 1/8th inch corrosion-resistant metal mesh. Install dryer vents with metal flappers and keep closed unless in use.
- Clear debris from roof and gutters regularly.
- Install metal flashing around and under garage doors that goes up at least 6 inches inside and outside the door.
- Use noncombustible lattice, trellis, or other decorative features.
- Install weather stripping around and under doors.
- Remove combustible materials from underneath, on top of, or within 5 feet of deck.
- Use noncombustible patio future.
- Cover all eaves with screened vents.
- Establish and maintain a 5-foot noncombustible buffer around the home.

Actions to plan and save for:

B. Use noncombustible or ignition resistant siding and trim (e.g., stucco, fiber cement, fire-retardant treated wood) at least 2 feet up around the base of your home.
E. Use multipaned glass for skylights, not materials that can melt (e.g., plexiglass), and use metal flashing.
F. Install a 6-inch vertical noncombustible surface on all gables above roofs.
G. Install multi-pane windows with at least one tempered-glass pane and metal mesh screens. Use noncombustible materials for window frames.
H. Install noncombustible gutters, gutter covers, and downspouts.
I. Install ignition-resistant or noncombustible roofs (composite, metal, or tile).
J. Install 1-hour fire rated garage doors.
A. Install a 1-hour fire rated doors.
B. Use ignition-resistant or noncombustible decking. Enclose crawl spaces.
C. Use noncombustible eaves.
F. Replace wooden fences with noncombustible materials and keep at least 8 feet away from the home. Keep double combustible fences at least 20 feet away from the home.

Figure 3.a.5. *A home can never be made fireproof, but home hardening practices decrease the chance that flames, radiant heat, and embers will ignite your home. Infographic by Community Planning Assistance for Wildfire with modifications to include information from CALFIRE 2019 and Maranghides et al. 2022.*

Annual Safety Measures and Home Maintenance in the WUI

Reviewing safety protocols, creating defensible space, and hardening your home are not one-time actions, but part of *annual* home maintenance when living in the WUI. During a wildland fire, homes that have clear defensible space are identified as sites for wildland firefighters to engage in structure protection, and homes that are not safely defensible will not usually receive firefighter resources.

The **Colorado State Forest Service** provides the following recommendations for annual activities to mitigate risks and increase your wildfire preparedness:

- ✓ Check fire extinguishers to ensure they have not expired and are in good working condition.
- ✓ Review your family's evacuation plan and practice family fire and evacuation drills.
- ✓ Verify that your home telephone number, cell phone, and/or email are properly registered for emergency notifications. Visit the *Clear Creek* https://www.jeffcom911co.gov/emergency-notification-system/ website on emergency notifications for more information.
- ✓ Review the contents of your "go-bag" and make sure it is packed and ready to go. Visit the https://www.rotarywildfireready.com/ to learn about preparing go-bags. Your go-bag should include supplies to last at least three days, including cash, water, clothing, food, first aid, and prescription medicines for your family and pets. Keep important documents and possessions in a known and easily accessible location so you can quickly grab them during an evacuation.
- ✓ Pay attention to red flag-day warnings from the National Weather Service and stay vigilant. Ensure your family is ready to go in case of an emergency.
- ✓ Walk your property to identify new hazards and ways to maintain and improve current defensible space. Take pictures of your defensible space to help you monitor regrowth and determine when additional vegetation treatments are necessary.
- ✓ Clear roofs, decks, and gutters of pine needles and other debris. Remove all pine needles and flammable debris from around the foundation of your home and deck. Remove trash and debris accumulations within 30 feet of your home. Repeat throughout the year as necessary.
- ✓ Properly thin and prune trees and shrubs that have regrown in home ignition zones 1 and 2 (0-5 feet and 5-30 feet from your home). Remove branches that overhang the roof and chimney. Prune trees and shrubs that are encroaching on the horizontal and vertical clearance of your driveway.
- ✓ Mow grass to a height of 4 inches or less within 30 feet of your home, camper / RV, sheds, and barns. If possible, keep your lawn irrigated, particularly within 30 feet of your home. Consider replacing dry grasses with Firewise Plant Materials that are more drought tolerant and less flammable.
- ✓ Check the visibility of your address and remove vegetation that obscures it.
- ✓ Check screens over chimneys, eaves, and vents to make sure they are in place and in good condition.
- ✓ Ensure that an outdoor water supply is available for responding firefighters. Put a hose and nozzle in a visible location. The hose should be long enough to reach all parts of your home.

Mitigation Barriers and Opportunities

Homeowners and residents in the WUI share concerns about mitigating risk and maintaining safe conditions in their home ignition zone. **Table 3.a.2**. Proposes several opportunities to address these challenges.

Table 3.a.2. *Common concerns from residents in the WUI, and potential solutions to encourage mitigation measures in the home ignition zone.*

Concern	Potential solutions
I don't have the resources to invest in defensible space.	Creating adequate defensible space can take years and a significant financial investment. Fortunately, there are **effective, low-cost measures** that residents can start with: ✓ Annually remove leaves, needles, and other vegetation from roofs, gutters, decks, and around the base of homes. ✓ Use hand tools like a pole saw to remove tree branches that hang less than 10 feet above the ground. ✓ Remove combustible materials (dry vegetation, wooden picnic tables, juniper shrubs, etc.) from underneath, on top of, or within 5 feet of decks. ✓ Remove downed logs and branches within 30 feet of all structures. ✓ Apply for cost-sharing grants with your neighbors to subsidize the creation of defensible space (see **Section 3.g.** for potential funding sources). ✓ Research tax credits that will offset the costs or the work you want to do.
I am afraid that removing trees will destroy the forest and reduce the aesthetic and monetary value of my property.	The reality is that nothing will decrease the value of your home as much as a high-severity wildfire burning all the vegetation in the community, even if your home survives the fire. Drive around the community and look for homes that have followed the guidelines in **Figure 3.a.2** and **Table 3.a.1**. Some properties in Clear Creek Fire Authority have exemplary defensible space and beautiful landscaping at the same time. Read Firewise Plant Materials from Colorado State University Cooperative Extension and Firescaping from FIRESafe MARIN for suggestions on beautiful, fire-resistant landscaping. As an added benefit, fire-resistant landscaping is often more drought tolerant. [Insert resource that outlines the role of fire in local ecosystems] Restored ecosystems can be aesthetically pleasing, benefit wildlife and light-loving wildflowers and grasses, and protect your home from high-severity wildfires.
My neighbors haven't mitigated risk on their property.	Some residents in Clear Creek Fire Authority are rightfully concerned about high hazards on their *[ex: neighbors' properties, surrounding public land, HOA open space, etc.*] Your home ignition zone might overlap with your neighbor's property. Given the high fire risk in the area, it is important that residents across Clear Creek

Fire Authority create defensible space and harden their homes. Ideas to inspire action by your neighbors include:

- ✓ Working with your Community Ambassador, your HOA, and other community groups to help educate your community about the benefits of defensible space and home hardening.
- ✓ Organizing walking tours to visit the property of residents with exemplary defensible space. Witnessing the type of work that can be done, and seeing that a mitigated property can still be aesthetically pleasing, can encourage others to follow suit.
- ✓ Inviting your neighbors over for a friendly conversation about the risk assessment in this CWPP. Review resources about defensible space together, discuss each other's concerns and values, and develop joint solutions to address shared risk.



Fire-resistant landscaping in zone 1 can be aesthetically pleasing and more drought tolerant, requiring less watering during the summer. Limbed and thinned trees in zone 2 (as seen in the background of this photo) can create beautiful, open conditions that allow understory vegetation to flourish under higher light conditions and provide habitat for wildlife.

Photo credit: Washinaton State Universitv Master Gardener Proaram.

Evacuation Preparedness

The best way to get out quickly and safely during an evacuation is to be prepared with a go-bag and have a family emergency plan **before** the threat of wildfire is in your area. Talk to children and elderly family members about what they are expected to do and make necessary plans for pets and/or livestock. Visit the https://csfs.colostate.edu/live-wildfire-ready/ for information on go-bags and evacuation planning. Signing up for local emergency notifications can also help you leave quickly. Residents should register their cell phones and email addresses through Lookout Alert, the

official emergency notification system for Clear Creek County. See the Clear Creek Sheriff's Office website on Emergency Management for more information.

Evacuation preparedness is the responsibility of each resident in Clear Creek Fire Authority. Unfortunately, only 54% of respondents to the CWPP survey have evacuation plans for their families, and only 54% have go-bags at the ready. These are simple and crucial actions that can save lives.

Understand the types of emergency communications you might receive during an incident. The following definitions are provided by the Clear Creek Sheriff's Office.

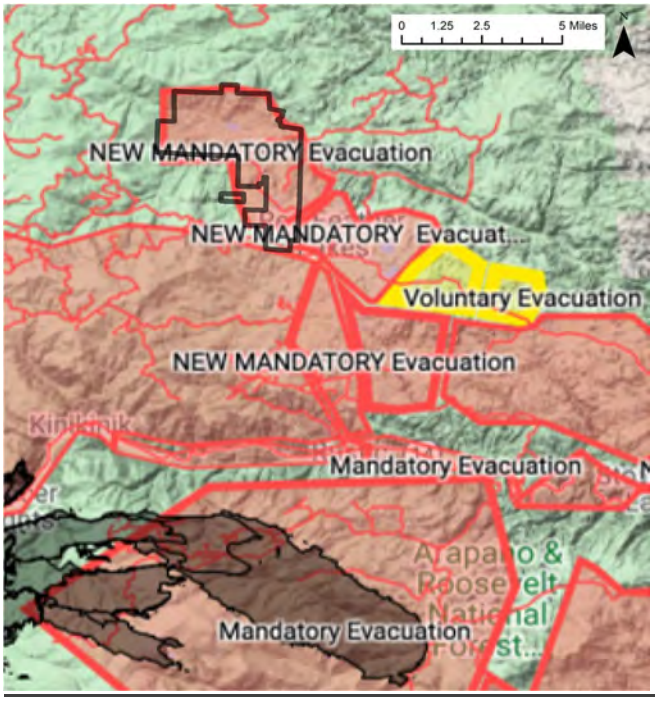
> ***Advisory messages*:** will [*provide information but do not require any action on your part*].
>
> ***Instruction messages*:** provide information and require you to take some action to be safe. There are three types of standard instructions:
>
> - ***Shelter in place:*** *There is a hazard in your area, and you should remain or go indoors; you should not go outdoors and not evacuate the area. This may be the safest strategy for hazardous materials, law enforcement, or other incidents wherein an evacuation could increase the danger to you and others.]*
> - ***Pre-evacuation:*** *A hazard in your area may require you to evacuate soon. Everyone should be prepared to leave at a moment's notice. Do so if you feel you are in danger and want to leave. If you need additional time to evacuate, you should consider leaving now. If you need to arrange for transportation assistance, you should do so immediately. If you have livestock or other large animals, you should consider removing them from the hazard area now.]*
> - ***Evacuation:*** *Your area has a hazard, and you have been ordered to evacuate immediately. If you need assistance evacuating yourself or need help evacuating animals, call 911. You will be provided with what the emergency is and its location, so make sure you understand where the emergency is and that your primary evacuation routes may be closed or unpassable. You will also be told where an evacuation point has been established to provide information and a safe place if you have nowhere else to go.* ***Do not delay – evacuation means you need to leave immediately!]***

Some residents have family members or neighbors with physical limitations who might struggle to evacuate in a timely manner. Family members or individuals living alone also need to address the unique needs and vulnerabilities that arise from mobility or hearing impairments during an evacuation. Other residents are concerned about school-aged children who might be home alone during an evacuation. Parents should work with their neighbors to develop a plan for how their children would evacuate if they were to be home alone. Families with these concerns should put extra time into having go bags ready and using the earliest evacuation warnings to leave in the event of a wildfire, rather than waiting for mandatory evacuation orders. Having a plan in place ahead of time can ensure prompt evacuations and save lives during wildfires.

Residents with livestock trailers or large camper vehicles should plan to leave during voluntary evacuation notices to allow time for their preparations and create more space on the roads for other residents during a mandatory evacuation. It is important to have a plan for where to take livestock to reduce some of the chaos and uncertainty created by wildfire evacuations.

Follow evacuation etiquette *to increase the chance of everyone exiting the CCFA in a safe and timely manner during a wildfire incident:*

- Our county uses [*insert local emergency notification system here]* and asks residents to register for emergency notifications through Lookout Alert for timely information about evacuations.
- See the https://www.clearcreekcounty.us/761/Clear-Creek-County-Sheriffs-Office for details.
- Leave as quickly as possible after receiving an evacuation notice.
- Have a go-bag packed and ready during the wildfire season, especially on days with red flag warnings.
- Leave with as few vehicles as necessary to reduce congestion and evacuation times across the community.
- Drive safely and with headlights on. Maintain a safe and steady pace. Do not stop to take pictures.
- Yield to emergency vehicles.





Clear Creek Fire Authority residents experienced mandatory and voluntary evacuations during the 2021 Miners Candle Fire. Following Clear Creek County Sheriff's Office orders during evacuations is critical to keep residents and first responders safe.]

Photo credit: Denver7 News (left) and Blaine Howerton/North Forty News (right).

Accessibility and Navigability for Firefighters

Address signs

Installing reflective address numbers can save lives by making it easier for firefighters to navigate to your home at night and under smokey conditions. Mount reflective address signs on noncombustible posts, not on stumps, trees, wooden posts, or chains across driveways. Chains across driveways might be removed during wildfire suppression to facility access to your property. Make sure the numbers are clearly visible from both directions on the roadway.

Driveways

It is important to ensure emergency responders can locate and access your home. Narrow driveways without turnarounds, tree limbs hanging over the road, and lots of dead and down trees by the road may make firefighters choose to not defend your home during a wildfire event (Brown, 1994).

Some Clear Creek Fire Authority roads have accessibility and navigability issues, such as steep grades, limited clearances, no available turnarounds, and heavy fuel loading adjacent to road edges. These unsafe road and driveway conditions could prevent firefighters from attempting to defend homes. According to the National Fire Protection Association, driveways and roads should have a minimum of 20 feet of horizontal clearance and 13.5 feet of vertical clearance to allow engines to access the roads safely (O'Connor, 2021).



Many driveways within unincorporated Clear Creek do not meet current access requirements and pose safety issues that are difficult to mitigate. Driveways that are steeper than 10% grade, long without pullouts, terminate without turnaround space can create challenges for emergency response vehicles during wildfires. Home hardening and fuel mitigation are particularly important to reduce wildfire risk around homes with accessibility issues.

Where possible, residents should improve roadway access, and where this is not feasible, it is vital that homeowners take measures to harden their home and create defensible space. Some actions to increase access to your home are simple, such as installing reflective address numbers, and others take time and investment, such as widening driveways to accommodate fire engines.

Private Water Resources

In areas not served by a municipal water system, the installation of cisterns can provide an equivalent water supply. These systems must be located within 1000 feet of the homes, hold a minimum of 10,000 gallons, and have a 6-inch draft connection. There should be sufficient space to either pull alongside or back up to the tank location.

Most importantly, create defensible space around your home and buildings so that water resources can be used effectively. Maintaining a property that requires less water and resources to defend is more likely to survive a fire. See **Table 3.a.1** and **Figure 3.a.5** for guides on defensible space and home hardening recommendations.

Steps to enhance firefighter safety and access to your home:

- Install reflective address numbers on the street to make it easier for firefighters to navigate to your home under smokey conditions and at night. Make sure the numbers are clearly visible from both directions on the roadway. Use noncombustible materials for your address sign and sign supports. **Installing reflective address numbers can save lives and is inexpensive and easy to accomplish.**
- Address roadway accessibility for fire engines. Long, narrow, steep, and curving private drives and driveways without turnarounds significantly decrease firefighter access to your property, depending on fire behavior.
- Fill potholes and eroded surfaces on private drives and driveways.
- Increase fire engine access to your home by removing trees along narrow private drives and driveways so the horizontal clearance is 20 feet wide, and prune low-hanging branches of remaining trees so the unobstructed vertical clearance is at least 13.5 feet per the National Fire Protection Association (O'Connor, 2021).
- Park cars in your driveway or garage, not along narrow roads, to make it easier for fire engines to access your home and your neighbors' homes.
- Clearly mark septic systems with signs or fences. Heavy fire equipment can damage septic systems.
- Clearly mark wells and water systems. Leave hoses accessible for firefighters to use when defending your home, but **DO NOT** leave the water running. This can reduce water pressure to hydrants across the community and reduce the ability of firefighters to defend your home. Read this post by FIRESafe Marin about why it is dangerous to leave water running when you evacuate during a wildfire.
- Post the load limit at any private bridges or culverts on your property.
- Leave gates unlocked during mandatory evacuations to facilitate firefighter entrance to your property.
- Leave exterior lights on to increase visibility.

If time allows, leave a note on your front door confirming that all parties have evacuated and providing your contact name and phone number.

3.b. Neighborhood Recommendations

The CWPP is a useful planning document, but it will only affect real change if residents, neighbors, Clear Creek Fire Authority, other community groups, and agency partners come together to address shared risk and implement strategic projects. This section of the CWPP discusses the concept of linked defensible space and mosaic landscapes and provides relative hazard ratings and specific recommendations for CWPP plan units in Clear Creek Fire Authority. CWPP plan units are groups of neighborhoods with shared fire risk. We encourage residents within CWPP plan units to organize and support each other to effectively reduce wildfire risk and enhance emergency preparedness.

Linked Defensible Space

The home ignition zone of individual residents can overlap that of their neighbors, so wildfire hazards on one property can threaten adjacent properties. Structures that are on fire can emit significant radiant heat and embers and endanger homes and structures near them.

Neighbors can increase their homes' chances of survival during a wildfire if they work together to create linked defensible space. Linked defensible space also creates safer conditions

and better tactical opportunities for wildland firefighters. [*According to James White, the Prescribed Fire and Fuels Specialist for the Arapaho/Roosevelt National Forests, "Broadcast burning, mechanical thinning, and other treatments are proven to mitigate wildfire risk, but they are even more effective when we work together to integrate treatments across the landscape, across borders and ownerships" (Avitt, 2021).]* Defensible space projects that span ownership boundaries are better candidates for grant funding due to their strategic value.

How can you help inspire action by your neighbors? Start by creating defensible space and hardening your own home. Then try the ideas below:

- Invite your neighbors over for a friendly conversation about the risk assessment in this CWPP. Review resources about defensible space together, discuss each other's concerns and values, and develop joint solutions to address shared risk.
- Volunteer with [*ex: specific community groups]* to help educate your community about the benefits of defensible space and home hardening.
- Help organize walking tours in your neighborhood to visit the property of residents with exemplary defensible space. Witnessing the type of work that can be done, and seeing that a mitigated property can still be aesthetically pleasing, can encourage others to follow suit.

Mosaic Landscapes

Varied fuel types are known to slow the spread of fire, and heterogeneous landscapes (landscapes with multiple fuel types and trees of different sizes and ages) are more typical of historical forest conditions (Duncan et al., 2015). Creating a mosaic landscape in neighborhoods can help slow fire spread by changing the fuel types as it moves across a hill or valley. A mosaic landscape can be created in many ways. For example, a neighborhood could have a few acres of old-growth conifer trees next to a couple acres of aspen stands and a few acres of young regenerating conifer trees by a large grassy meadow. This can be arranged in many ways for aesthetic and tactical purposes, and will resemble a patchwork quilt or mosaic art (**Figure 3.b.1**).

The homes in these patches still need adequate defensible space, but this would create a more diverse landscape where fire may move slower as it transitions between forest types and unforested locations like shrublands or meadows. A slower fire movement means firefighters have time to defend more homes in the neighborhood. It also creates a diversity of biomes that both residents and wildlife enjoy.

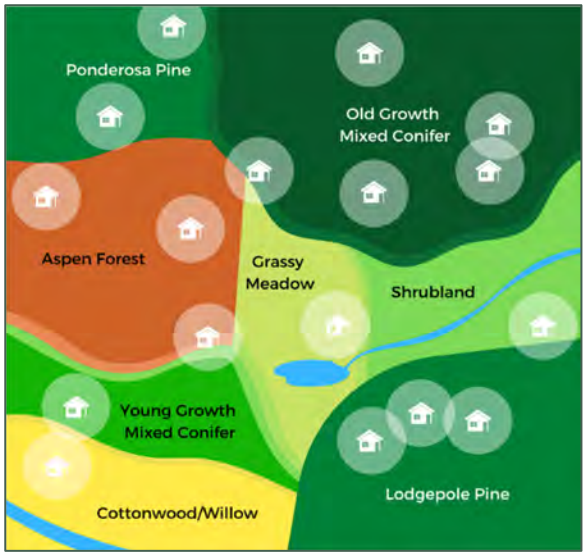


Figure 3.b.1. *Example of a mosaic landscape in a neighborhood. Each home has defensible space around it, and the landscape is varied throughout, providing tactical opportunities for firefighters working to defend homes. Source: The Ember Alliance*

Relative Risk Ratings by CWPP Plan Unit

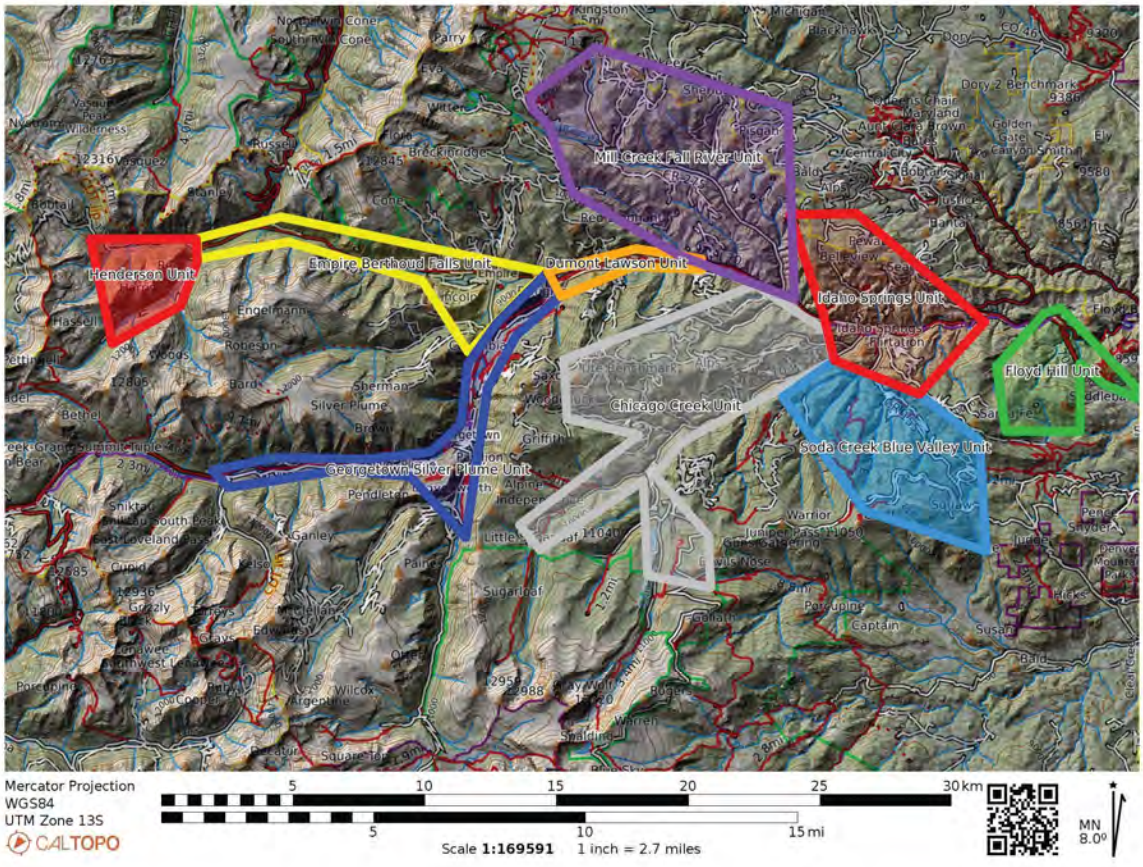
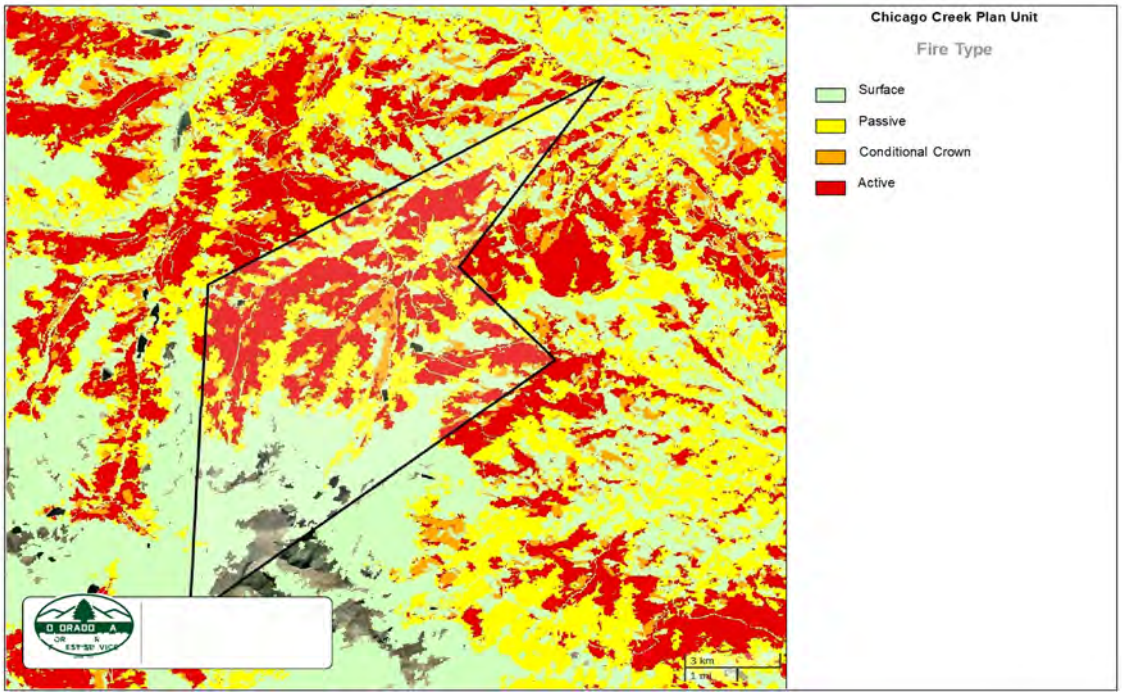


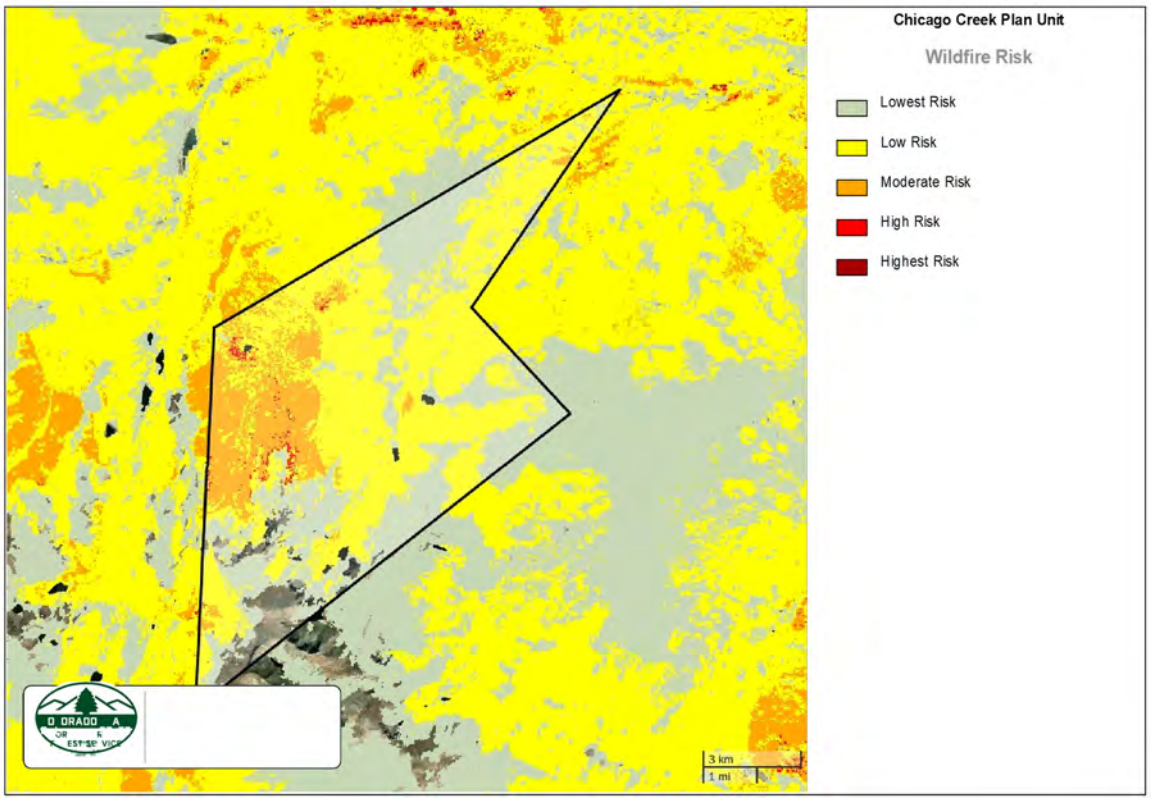
Figure 3.b.2. CWPP plan units in Clear Creek Fire Authority.

Wildfires' potential to threaten lives and property is moderate to high across the Clear Creek Fire Authority, but the risk is relatively higher in some parts of the district than others. Plan units with higher relative risk are strong candidates for immediate action to mitigate hazardous conditions. However, plan units with moderate relative risk still possess conditions concerning protecting life and property in the case of a wildfire. Most plan units have limited road access that follows the valley floors. Only four units have an interstate highway or state highway traveling through the unit to provide enhanced vehicle access and support evacuation efforts.

The plan units were designed to capture most residential structures within each operational area. They were geographically delineated by drainage, access availability, fuel type, or special hazards.

Chicago Creek – Low to moderate relative risk rating







The vegetation in the unit consists of a lodgepole pine-spruce fir mixed forest with a timber understory consisting of large quantities of timber litter and young trees.

The plan unit has 226 structures distributed throughout the valley floor, with a limited number dispersed within the adjacent valley sides. All structures are in the wildland-urban interface risk category.

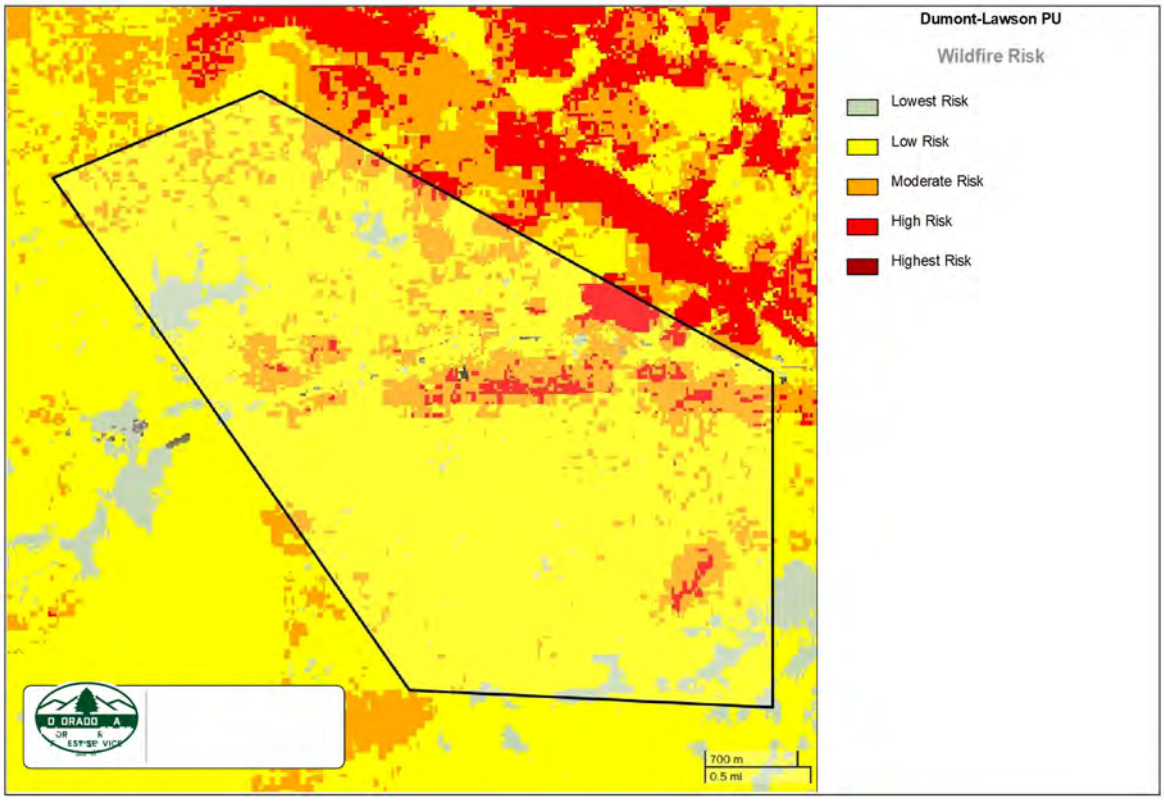
Highway 103 is a two-lane state highway providing primary access to this unit. The road is in good condition and has sufficient pullout areas supporting evacuation activities while emergency response units enter the area and are survivable in a wildfire event. The secondary roads within the unit are improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes.

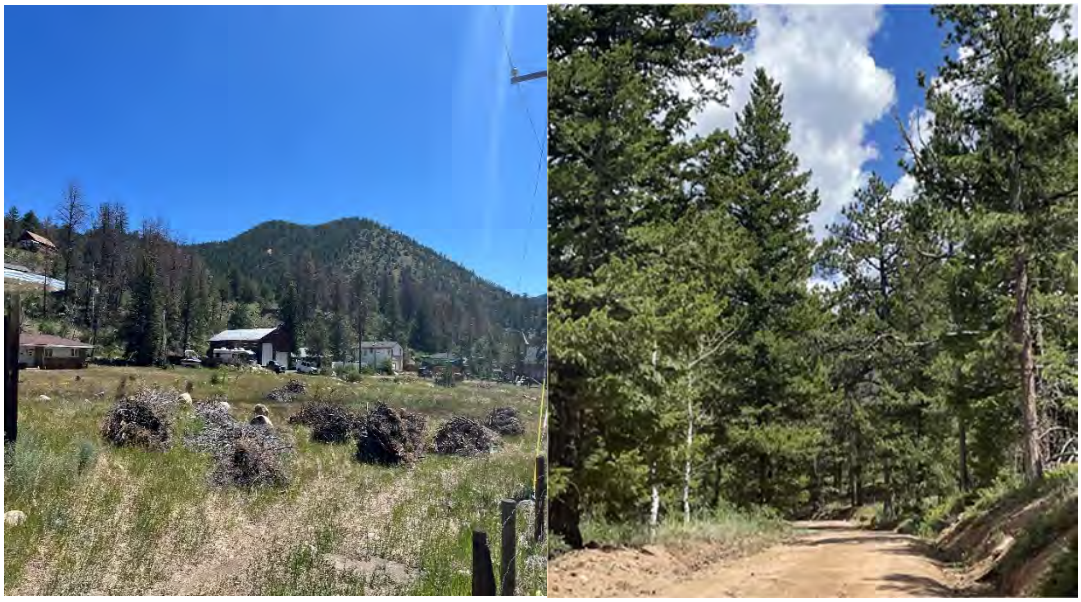
Recommendations for collective action in the Chicago Creek Plan Unit:

- Perform Home Hardening to reduce the home ignition potential from embers and structure to structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure).
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Perform evacuation planning and education with the residents of the unit. Install evacuation signs in selected areas to assist in evacuating visitors.
- Work with private landowners and USFS personnel to develop mitigation actions to improve the POD lines in Ute Creek, Cascade Creek, South Spring Gulch, and Trail Creek drainages.
- Mitigate the area adjacent to the Idaho Springs Reservoir to limit post-fire impacts on the water supply.
- Mitigate the area adjacent to the Idaho Springs Water Treatment Plant and its associated water intake infrastructure to protect critical infrastructure and minimize post-fire impacts on water quality.

The fire danger in the unit is low to moderate. Due to fuel and topography, fires within the drainages in the unit have the potential to reach flame lengths exceeding 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality in Idaho Springs and the downstream water users in the metro area. Crown fire activity can produce ember showers up to two miles ahead of the approaching fire front. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 30 feet of the structure are crucial to reducing the probability of ignition.

Dumont-Lawson – Low to Moderate relative risk rating





The vegetation in the unit consists of a predominantly lodgepole pine stands with a mixed conifer and spruce-fir forest. The timber understory consists of large quantities of timber litter and young trees. Small areas of ponderosa pine are mixed with large open grass fields.

The plan unit has 336 structures distributed throughout the valley floor, with a limited number dispersed within the adjacent valley sides. All structures are in the wildland-urban interface risk category. The unit contains six mobile home parks with a high building density and limited options for home hardening.

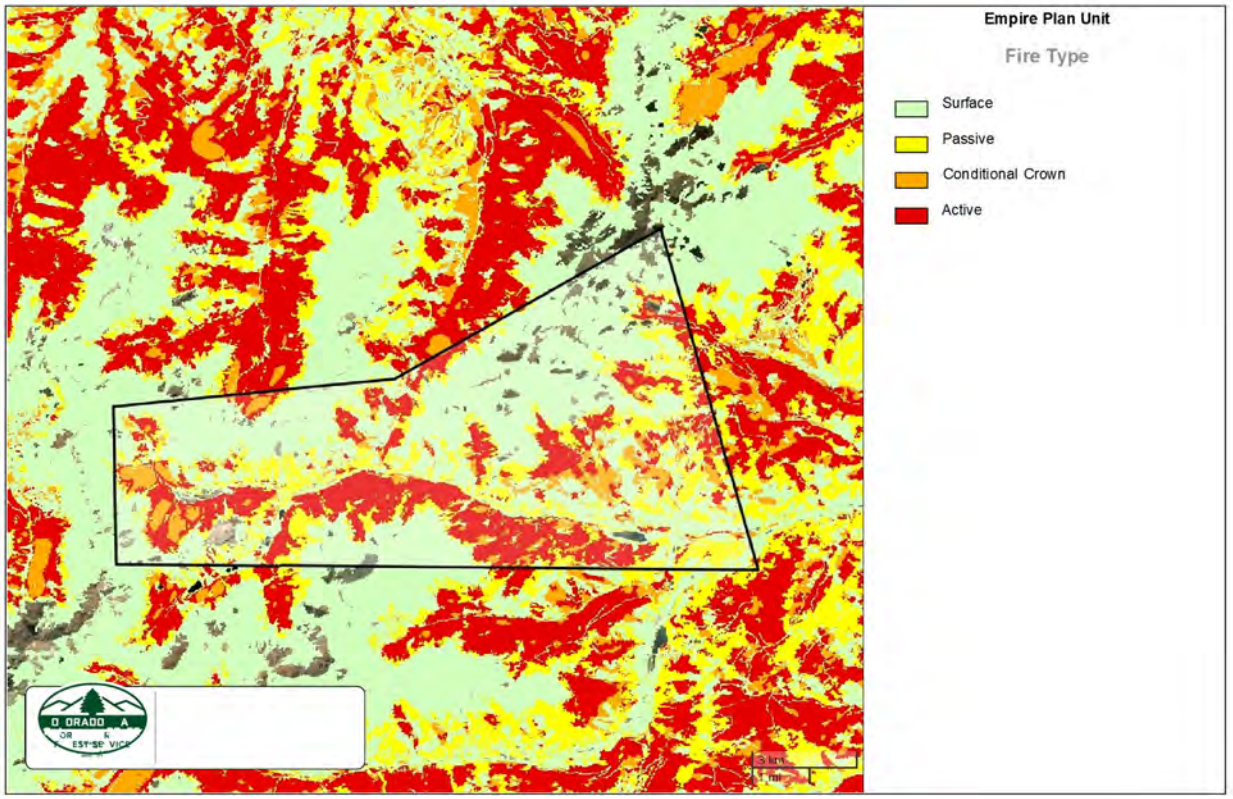
Interstate 70 is a four-lane interstate that runs through the plan unit. There are two exits and onramps within the unit that access I-70. County road 308 is a two-lane, providing primary access to this unit. The road is in good condition and has sufficient pullout areas supporting evacuation activities while emergency response units enter the area and are survivable in a wildfire event. The secondary roads within the unit are improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes.

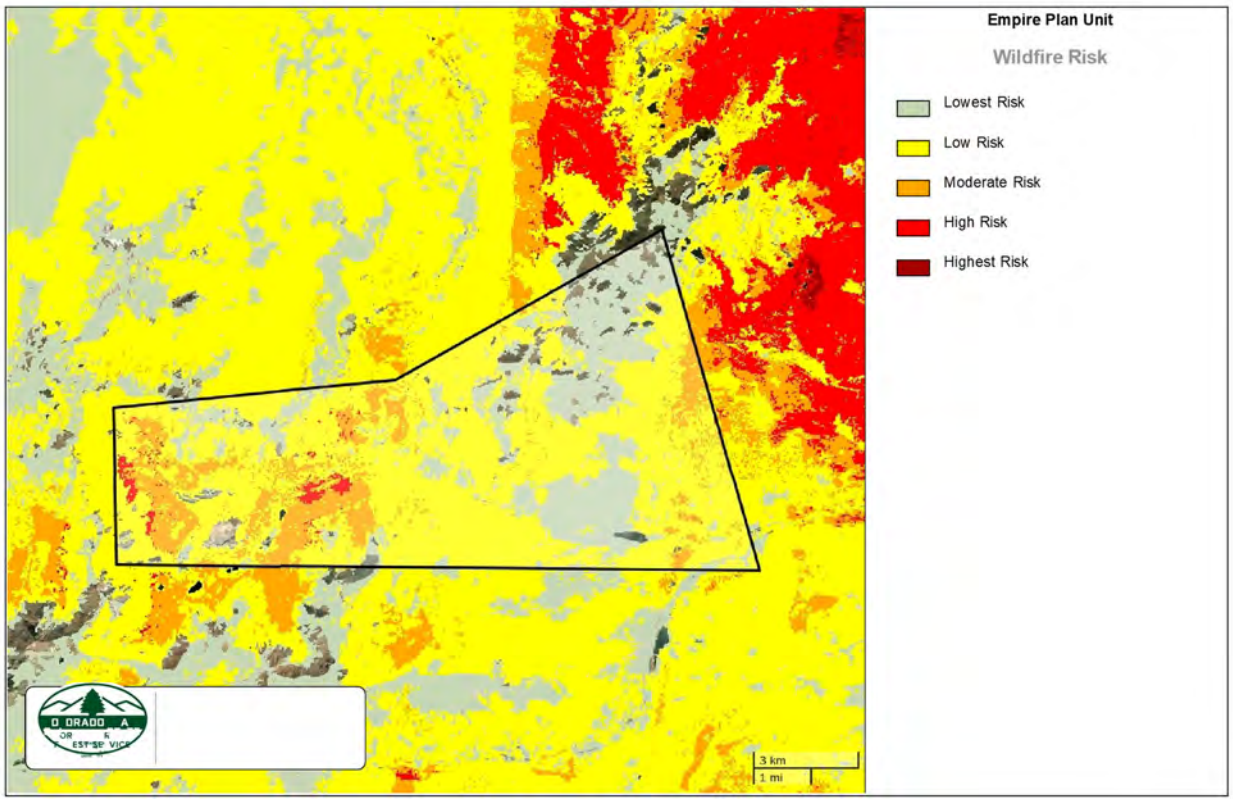
Recommendations for collective action in the Dumont-Lawson Plan Unit:

- Perform Home Hardening to reduce the home ignition potential from embers and structure to structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure).
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Plan and educate the residents of the unit about evacuation. Install evacuation signs in selected areas to assist visitors in evacuating.
- Remove all dead standing conifer trees that are adjacent to homes north of Dumont Lane.

The fire danger in the unit is low to moderate. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality in the City of Blackhawk and the downstream water users in the metro area. Crown fire activity can produce ember showers up to two miles ahead of the approaching firefront. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 30 feet of the structure are crucial to reducing the probability of ignition.

Empire –Berthoud Falls- Moderate to high relative risk rating








The vegetation in the unit consists of spruce fire timber stands, smaller areas of lodgepole, and open grass areas. There are large areas of brush spread throughout the unit. The primary ground fuels are grass, along with a timber understory consisting of large quantities of timber litter and young trees.

The plan unit has 533 structures distributed throughout the valley floor, with a limited number dispersed within the adjacent valley sides. All structures are in the wildland-urban interface risk category.

US 40 is a two-lane state highway providing primary access to this unit. The road is in good condition and has sufficient pullout areas supporting evacuation activities while emergency response units enter the area and are survivable in a wildfire event. The secondary roads within the unit are improved and unimproved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Most homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes. The area has a large population of visitors recreating the North Empire areas. The recreation areas will require additional effort to evacuate effectively during an event.

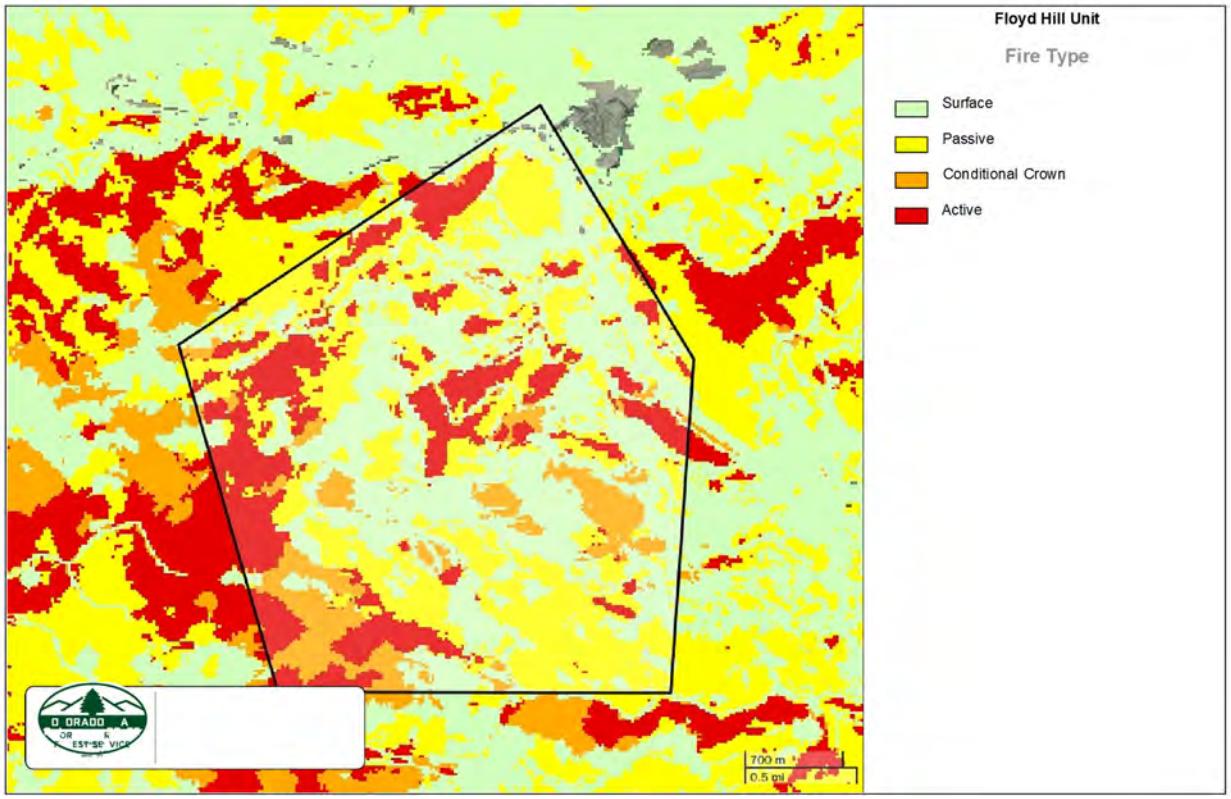
Recommendations for collective action in the Empire-Berthoud Falls Plan Unit:

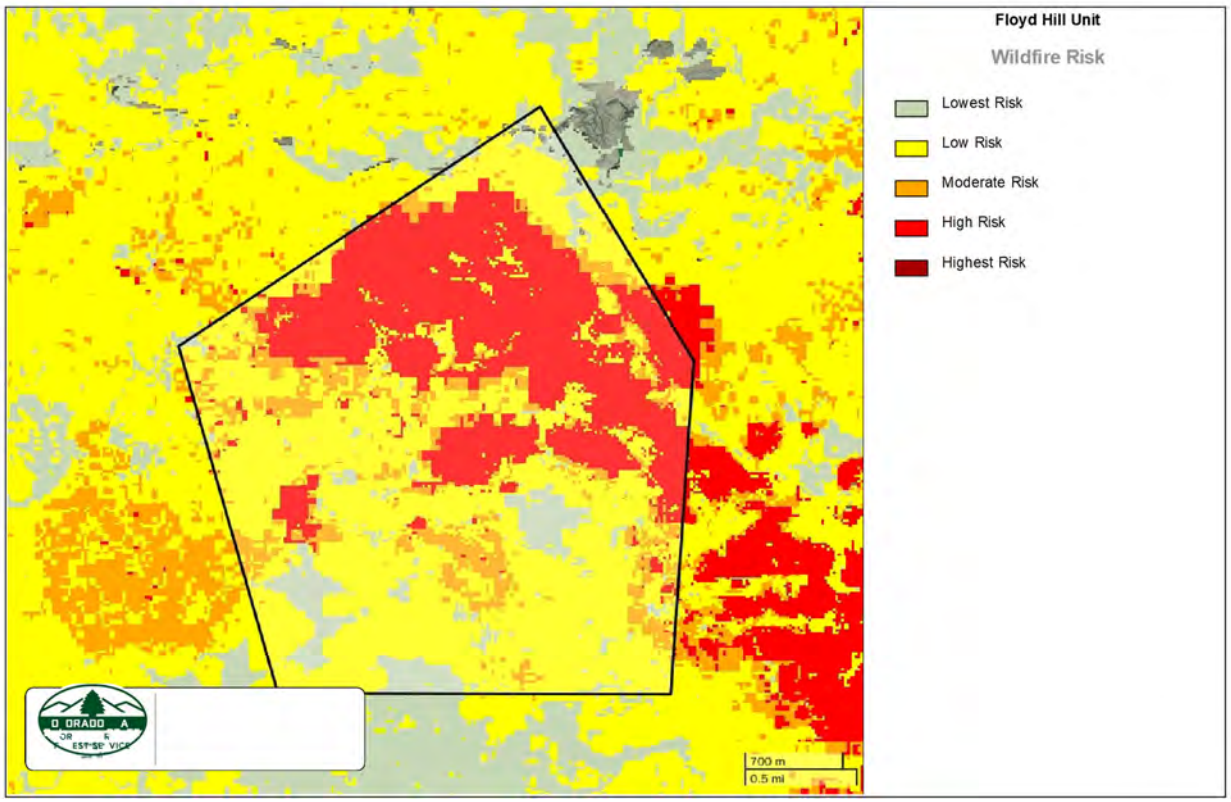
- Perform Home Hardening to reduce the home ignition potential from embers and structure to structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure).
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Plan and educate the unit's residents about evacuation. Install evacuation signs in selected areas to assist visitors in evacuating. Evaluate the areas adjacent to Guanella Ranch Reservoir and the Empire Ball Fields as possible evacuation staging areas.
- Work with private landowners, Clear Creek County, and USFS personnel to develop mitigation actions to improve the POD lines in the north Empire area, including fuel breaks that would connect into the Mill Creek drainage.
- Partner with Clear Creek County, USFS, and Colorado Division of Wildlife to plan and implement future large-scale fuel breaks that will support the migration of Bighorn Sheep through the unit.
- Mitigate the area adjacent to the Town of Empire Water Treatment Plants and associated water intake infrastructure to protect critical infrastructure and limit the post-fire impacts on water quality.

- Work with property owners in the historic downtown to harden all buildings.

The fire danger in the unit is moderate to high. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit, while surface fires are the primary fire type in the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality in the Town of Empire and the downstream water users in the metro area. Crown fire activity can produce ember showers up to two miles ahead of the approaching firefront. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 30 feet of the structure are crucial to reducing the probability of ignition.

Floyd Hill – High relative risk rating







The vegetation in the unit consists of lodgepole pine, ponderosa pine, and mixed conifer forest with a timber understory comprised of large quantities of timber litter and young trees.

The plan unit has 535 structures distributed throughout the mountainside south of Interstate 70. The neighborhood homes are adjacent to a road network that travels cross-slope. This configuration places most homes above the heavy fuels adjacent to the drainage bottoms. A limited number of structures adjacent to US 40 are above the fuels at the bottom of the drainages and in line with the expected direction of travel for fires that start below the homes. All structures are in the wildland-urban interface risk category.

Interstate 70 is a four-lane highway running through the unit's center. US 40 and US 6 are two-lane state highways that provide primary access to the northern section of the unit. The Saddleback neighborhood is accessed via improved paved two-lane county roads and improved dirt two-lane county roads. The main paved roads are in good condition and have sufficient pullout areas supporting evacuation activities. At the same time, emergency response units enter the area, which may be survivable in a wildfire event. The secondary roads within the unit are improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit have address markers at the start of the driveways.

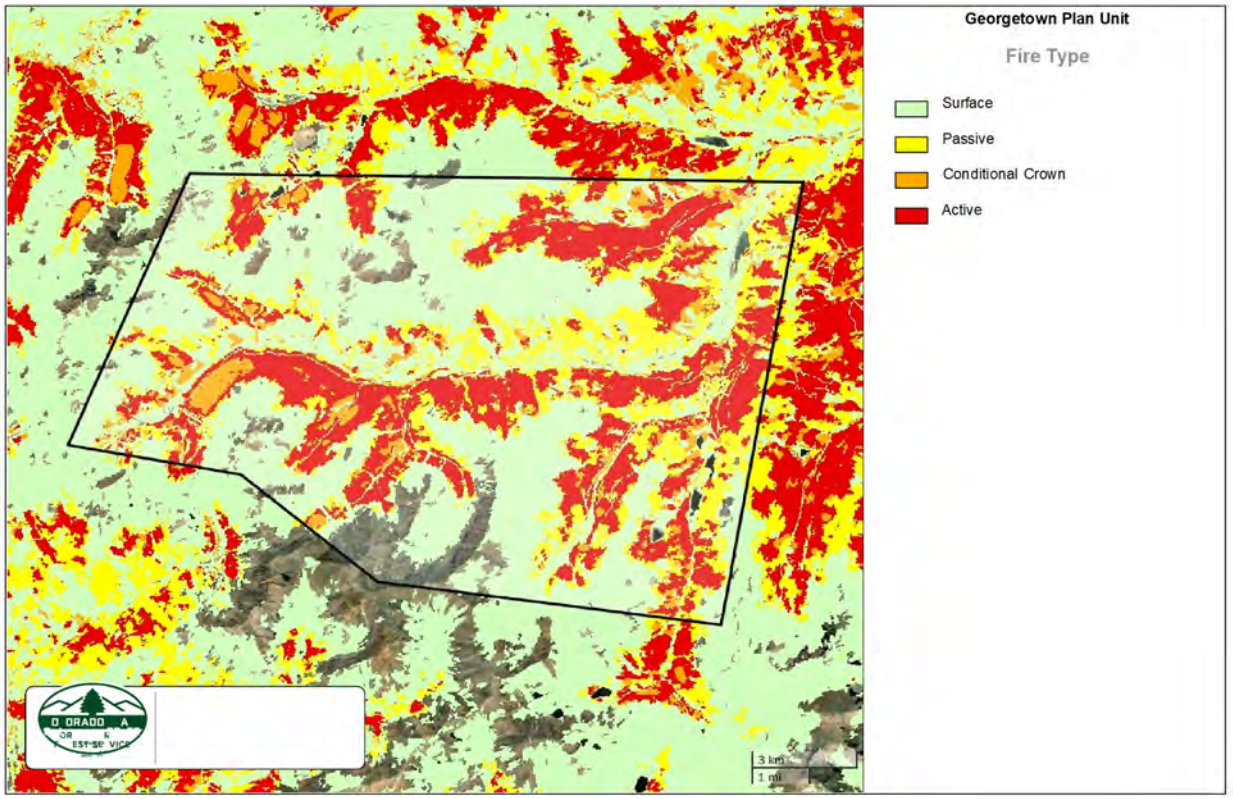
Recommendations for collective action in the Floyd Hill Plan Unit:

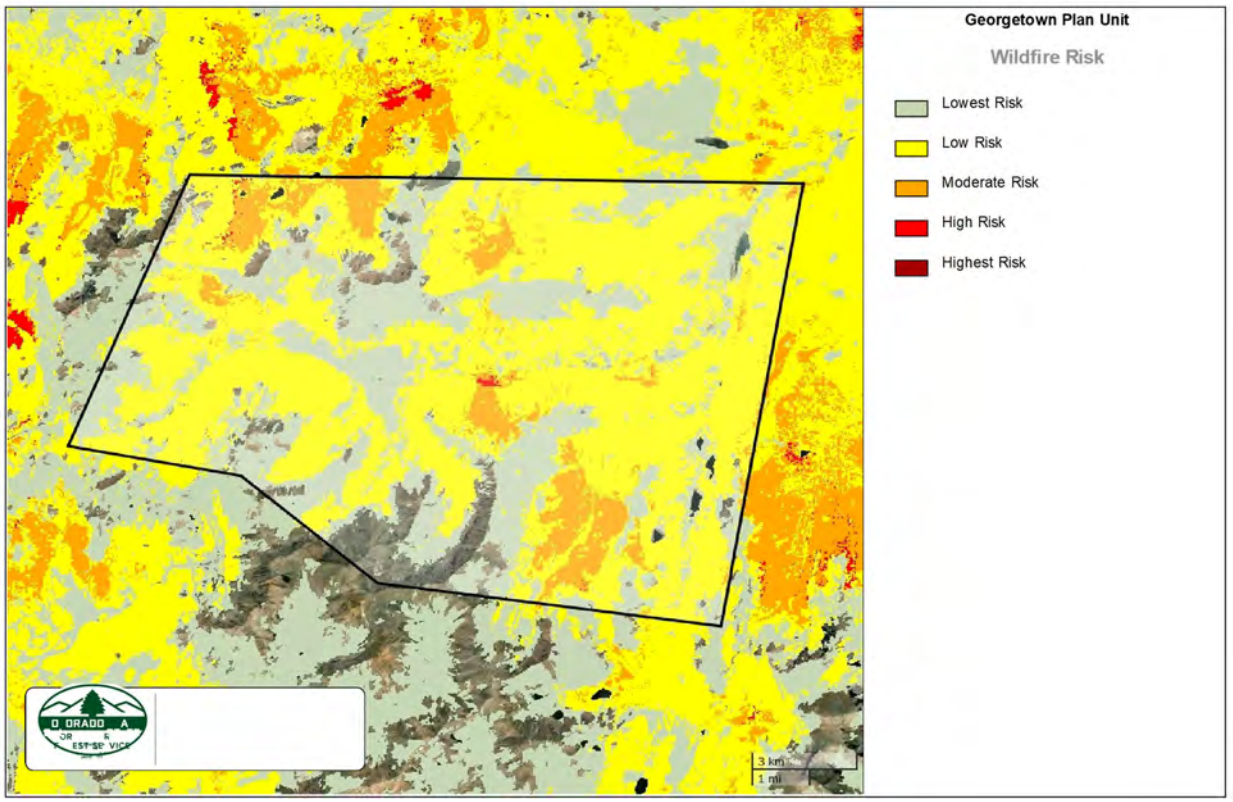
- Perform Home Hardening to reduce the home ignition potential from embers and structure to structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure).
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Plan and educate the residents of the unit about evacuation. Install evacuation signs in selected areas to assist visitors in evacuating.
- Mitigate the fuels within the drainages below the homes to reduce the ground fuels while increasing the canopy spread to a minimum of ten feet.
- Mitigate the areas below the high-voltage power lines that travel through the Saddleback Neighborhood. The regeneration trees below these lines are twelve to fifteen feet tall and directly below adjacent homes.
- Work with private property owners, Clear Creek County, and CDOT to develop secondary evacuation routes from the Saddleback Neighborhood, including a traffic management plan addressing the limited I-70 access.

- Improve the emergency access road between Saddleback neighborhood and Beaver Brook Canyon Road. Improvements include mitigating the fuels adjacent to the road surface and improving the road surface to support large-scale evacuation efforts.

The fire danger in the unit is high due to the location of the homes in relation to the fuels and the increased risk of human-caused fires occurring along I-70 and within the Saddleback Neighborhood. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 4 to 60 chains per hour, with small areas with the potential for spread rates greater than 60 chains per hour. Fires in the unit can produce debris flows post-fire that will directly affect water quality for the downstream water users in the metro area. Crown fire activity can produce ember showers up to two miles ahead of the approaching firefront. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 100 feet of the structure are crucial to reducing the probability of ignition.

Georgetown-Silver Plume – Low to moderate to high relative risk rating








The vegetation in the unit consists of a lodgepole pine-spruce fir mixed forest with a timber understory comprised of large quantities of timber litter and young trees. There is a significant brush component in the Guanella Pass area and a grass component on the east side of the unit. The unit has a large number of blown-over trees throughout.

The plan unit has 1380 structures distributed throughout the valley floor, with a limited number dispersed within the adjacent valley sides. 97% of structures are in the wildland-urban interface risk category.

Interstate 70 is a four-lane highway that travels through the unit's center and is the primary access road. Alverado Road is a two-lane paved roadway that runs parallel to I-70. Guanella Pass is a paved two-lane road connecting the town of Georgetown with Grant in Park County. Loveland Pass is a two-lane state highway providing access to the southwestern portion of the unit. The roads are in good condition and have sufficient pullout areas supporting evacuation activities while emergency response units enter the area. The roads will be survivable in a wildfire event. The secondary roads within the unit are improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes. Recreation in the unit adds a significant number of visitors hiking or using off-highway vehicles. These additional visitors will have limited access to cell coverage and could be challenging to notify or evacuate. The Georgetown Loop Railroad adds additional risk to the unit through steam locomotives and the risks associated with rail equipment failures.

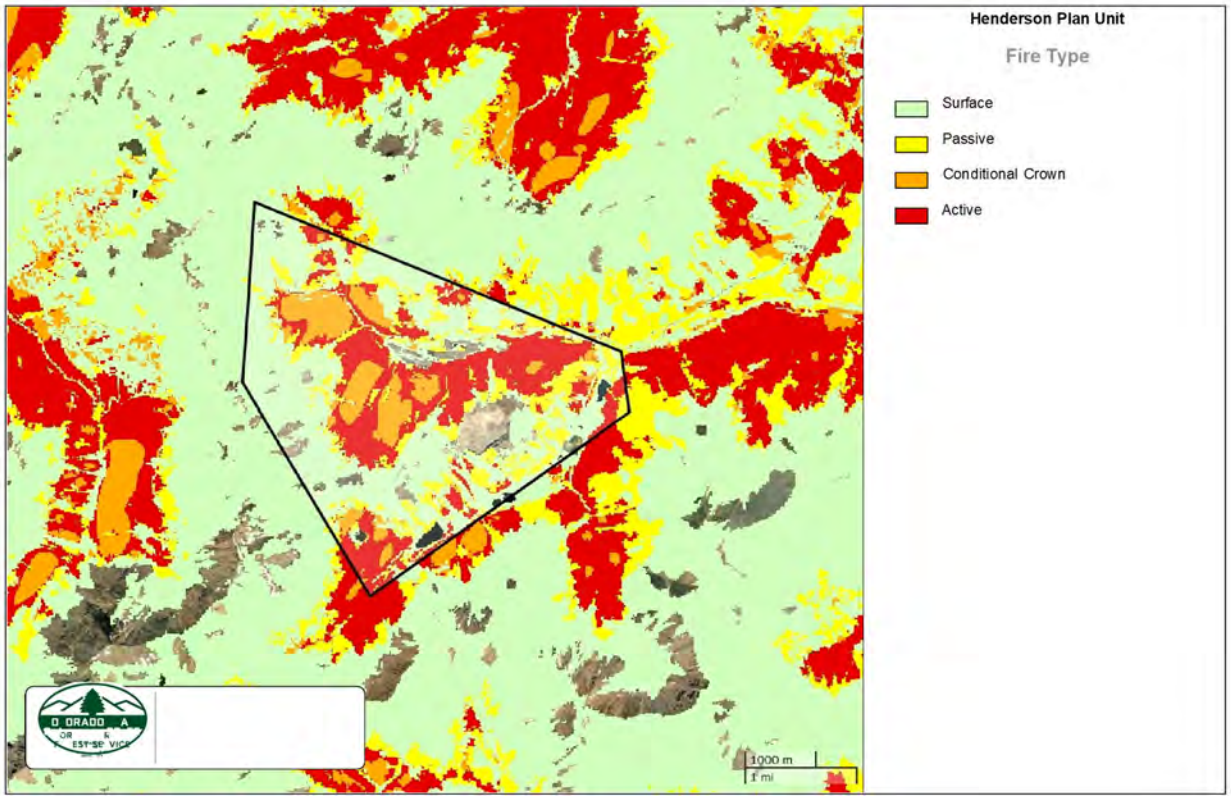
Recommendations for collective action in the Georgetown-Silver Plume Plan Unit:

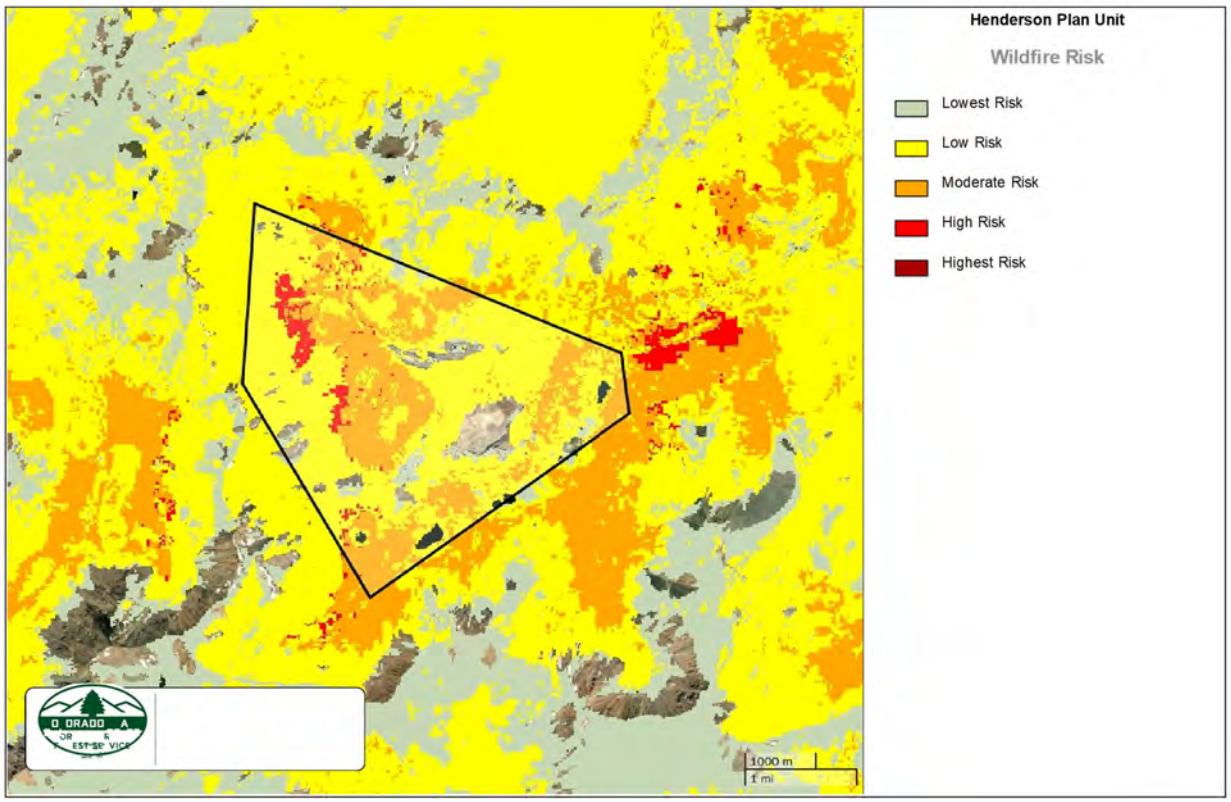
- Perform Home Hardening to reduce the home ignition potential from embers and structure-to-structure ignitions. (Work within the historic preservation requirements)
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure.)
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Perform evacuation planning and education with the residents of the unit. Install evacuation signs in selected areas to assist in evacuating visitors.
- Continue to mitigate the area adjacent to the Georgetown Reservoir to limit post-fire impacts on the water supply.
- Mitigate the area adjacent to the Town of Georgetown Water Treatment Plant and associated water intake infrastructure to protect critical infrastructure and limit the post-fire impacts on water quality.

- Work with private property owners, the Town of Georgetown, and Clear Creek County to develop mitigation projects on the Guanella Pass switchbacks adjacent to the town.
- Develop a community chipping program to facilitate mitigation within Georgetown and Silver Plume.
- Work with property owners in the historic downtown area to harden all buildings.

The overall fire danger in the unit is low to moderate. The alignment of the Georgetown Valley with the prevailing winds and abundant ground fuels raises the risk in this area to an unacceptable level. Guanella Pass is included in this high-risk zone. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality in the Town of Silver Plume, the Town of Georgetown, the City of Blackhawk, and the downstream water users in the metro area. Crown fire activity can produce ember showers extending up to two miles ahead of the approaching fire front. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 30 feet of the structure are crucial to reducing the probability of ignition.

Henderson – Low to Moderate relative risk rating







The vegetation in the unit consists of a spruce-fir forest with a timber understory consisting of large quantities of timber litter and young trees. The high meadows on the upper valley floors have a grass brush fuel component.

The plan unit has structures of 27 Henderson Mine, Denver Water, and Urad Water Treatment facilities. The structures have a low wildland-urban interface risk.

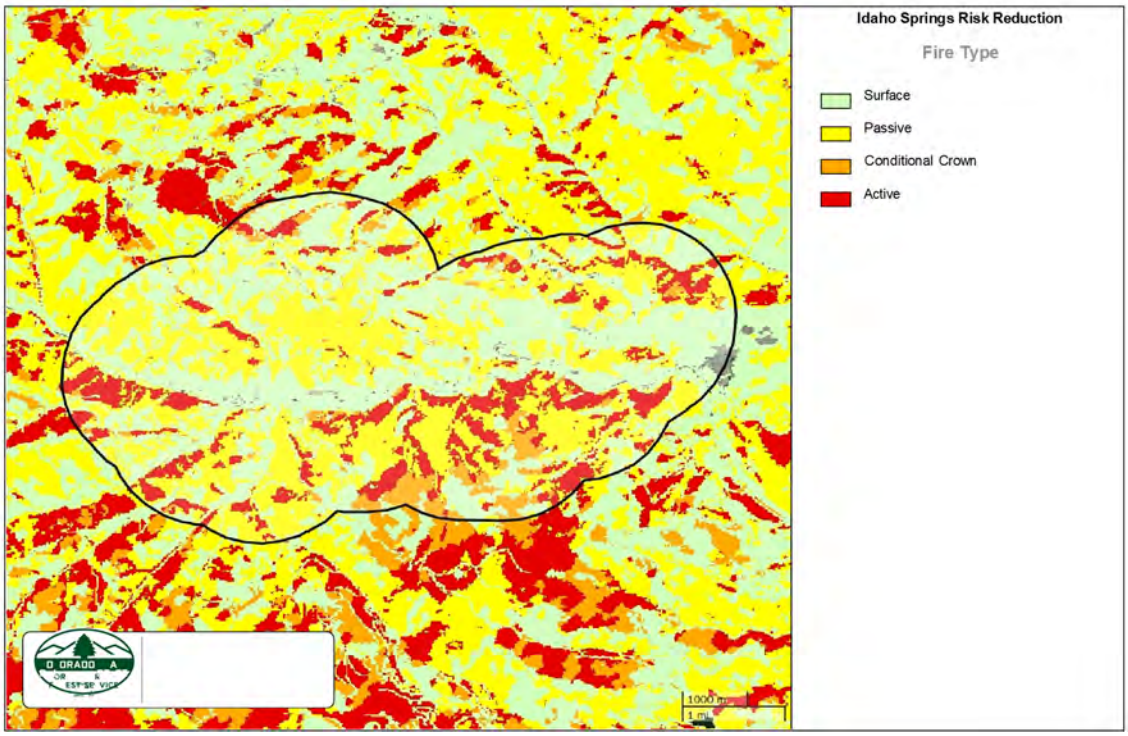
A two-lane paved county road provides primary access to this unit. The road is in good condition and has sufficient pullout areas to support evacuation activities while emergency response units enter the area and are survivable in a wildfire event. The secondary roads within the unit are improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface in small areas. These roads have limited pullouts and narrow areas that would not allow two-way traffic.

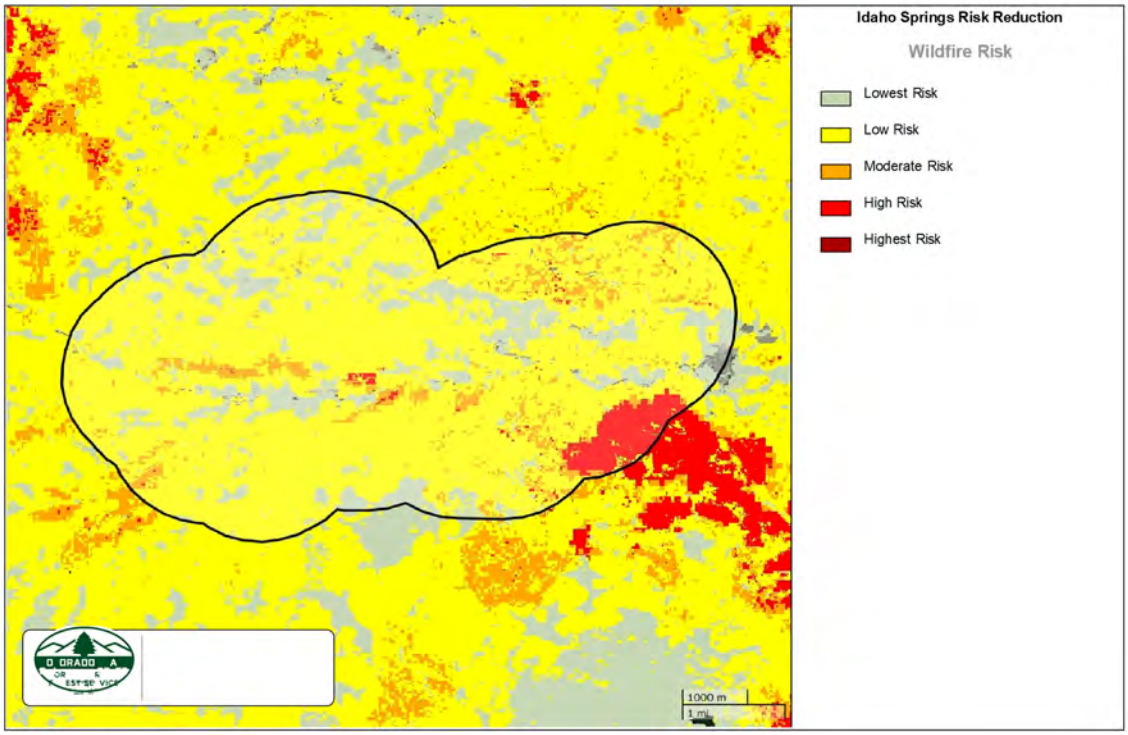
Recommendations for collective action in the Henderson Plan Unit:

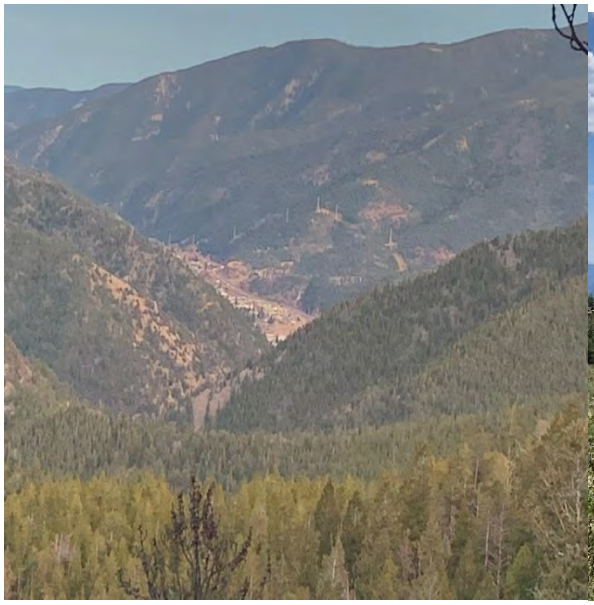
- Perform Building Hardening to reduce the ignition potential from embers and structure-to-structure ignitions.
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Perform evacuation planning and education with Henderson Operations. Install evacuation signs in selected areas to assist visitors in evacuating.
- Work with USFS personnel to develop mitigation actions in Woods Creek, Jones Pass, and Butler Gulch drainages.
- Work with Freeport McMoran, City of Golden, and USFS to develop projects to mitigate the area adjacent to the Urad Lakes and ponds to protect critical infrastructure and limit the post-fire impacts on water quality.

The fire danger in the unit is low to moderate. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality for the downstream water users in the metro area. Crown fire activity can produce ember showers extending up to two miles ahead of the approaching fire front. The embers pose more risk than passing the crown fire to the structure.

Idaho Springs – Low to moderate relative risk rating








The vegetation in the unit consists of ponderosa pine, lodgepole pine, and mixed conifer forests, with a timber understory characterized by large quantities of timber litter and young trees. The south-facing slopes have brush and grass fuel types. The area has pockets of juniper, mainly on north-facing slopes.

The plan unit has 2015 structures distributed throughout the valley floor, along with homes dispersed within the adjacent valley sides and drainages. All structures are in the wildland-urban interface risk category.

Interstate 70 is a four-lane highway that provides primary access to this unit. The road is in good condition and has sufficient pullout areas to support evacuation activities while emergency response units enter the area, ensuring survivability in a wildfire event. The secondary roads within the unit are paved or improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes.

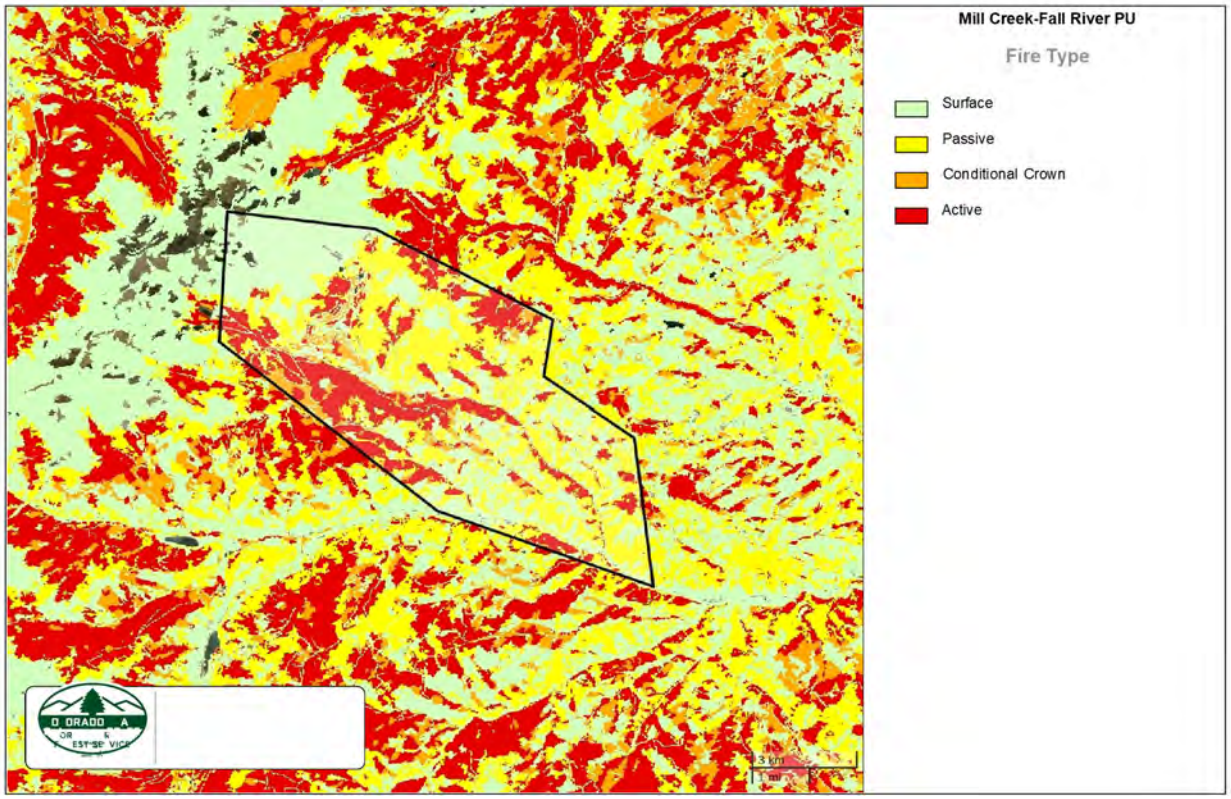
Recommendations for collective action in the Idaho Springs Plan Unit:

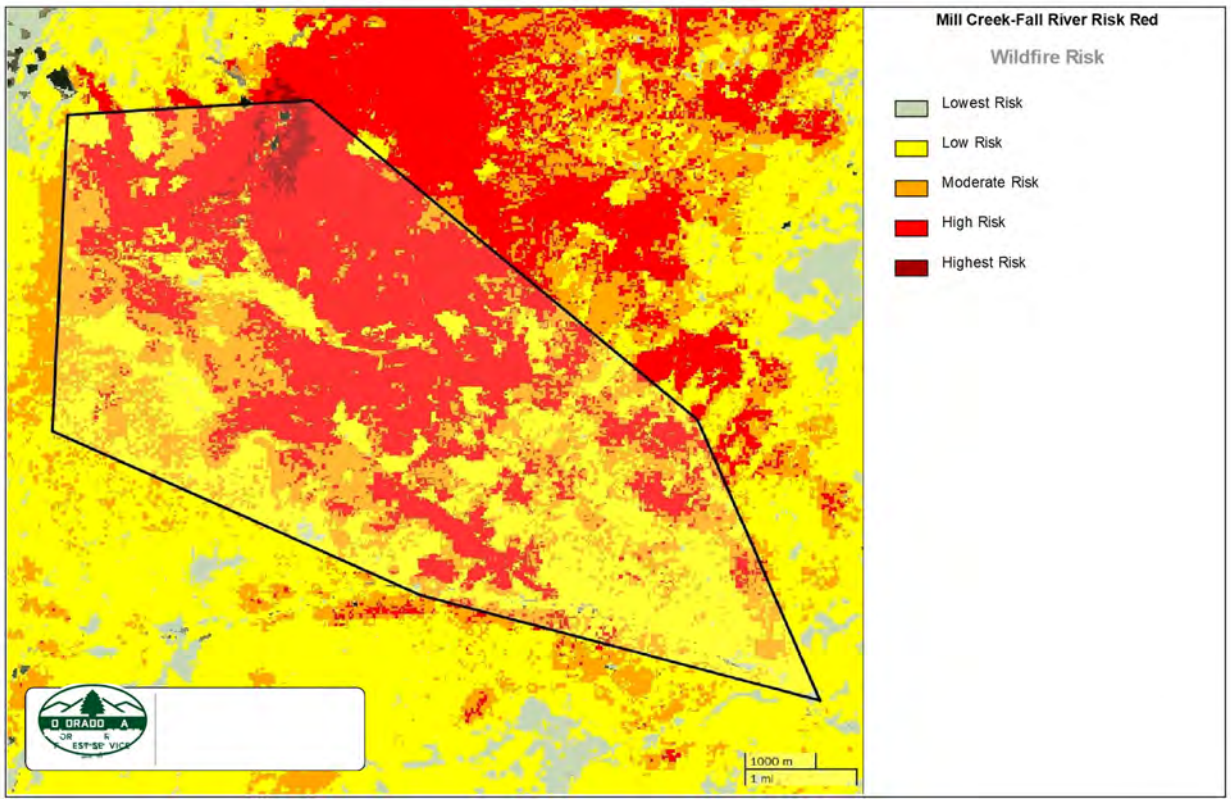
- Perform Home Hardening to reduce the home ignition potential from embers and structure-to-structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure.)
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Perform evacuation planning and education with the unit's residents. Install evacuation signs in selected areas to assist visitors in evacuating. Develop evacuation mapping to be shared with residents and visitors.
- Work with private landowners and USFS personnel to develop mitigation actions to improve road access into Hidden Wilderness and create fuel breaks in the Santa Fe Mountain area.
- Mitigate the area adjacent to the Idaho Springs water storage tanks on Pine Slope and Montane Park to limit post-fire impacts on the water supply.
- Mitigate the area adjacent to the Idaho Springs Reservoir and the Water Treatment Plant.
- Work with private property owners to remove dead-standing trees throughout the unit.
- Work with property owners in the historic downtown area to harden all buildings.
- Remove dead standing trees adjacent to homes in Montane Park, Soda Creek, and Pime Slope neighborhoods.

- Remove Dead Standing trees within Virginia Canyon Mountain Park and increase canopy spread in the remaining forest.
- Collaborate with private property owners for the removal of dead standing trees south of the greenway bike path

The fire danger in the unit is low to moderate. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality for the downstream water users in the metro area. Crown fire activity can produce ember showers up to two miles ahead of the approaching firefront. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 30 feet of the structure are crucial to reducing the probability of ignition.

Mill Creek-Fall River – High relative risk rating








The vegetation in the unit consists of lodgepole pine, spruce-fir, and ponderosa pine mixed forest, with a timber understory characterized by large quantities of timber litter and young trees. In York Gulch and Lower Fall River, large areas of grass are mixed with brush.

The plan unit has 834 structures distributed throughout the valley floor and dispersed within the adjacent valley sides. All structures are in the wildland-urban interface risk category. Saint Mary's Glacier/Alice and Mill Creek Park have the highest housing densities within the unit. Both locations are at or near the top of the drainages.

Mill Creek and Fall River are two-lane county roads providing primary access to this unit. The road is in good condition but has limited pullout areas to support evacuation activities while emergency response units enter the area. Both roads have large sections that are not survivable in a wildfire event. The secondary roads within the unit are improved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes. The extensive secondary road system is primarily maintained by the property owners that utilize the roads or are not formally maintained. Mill Creek and Fall River are the only evacuation routes for these drainages. Evacuation traffic could limit or preclude emergency vehicle access.

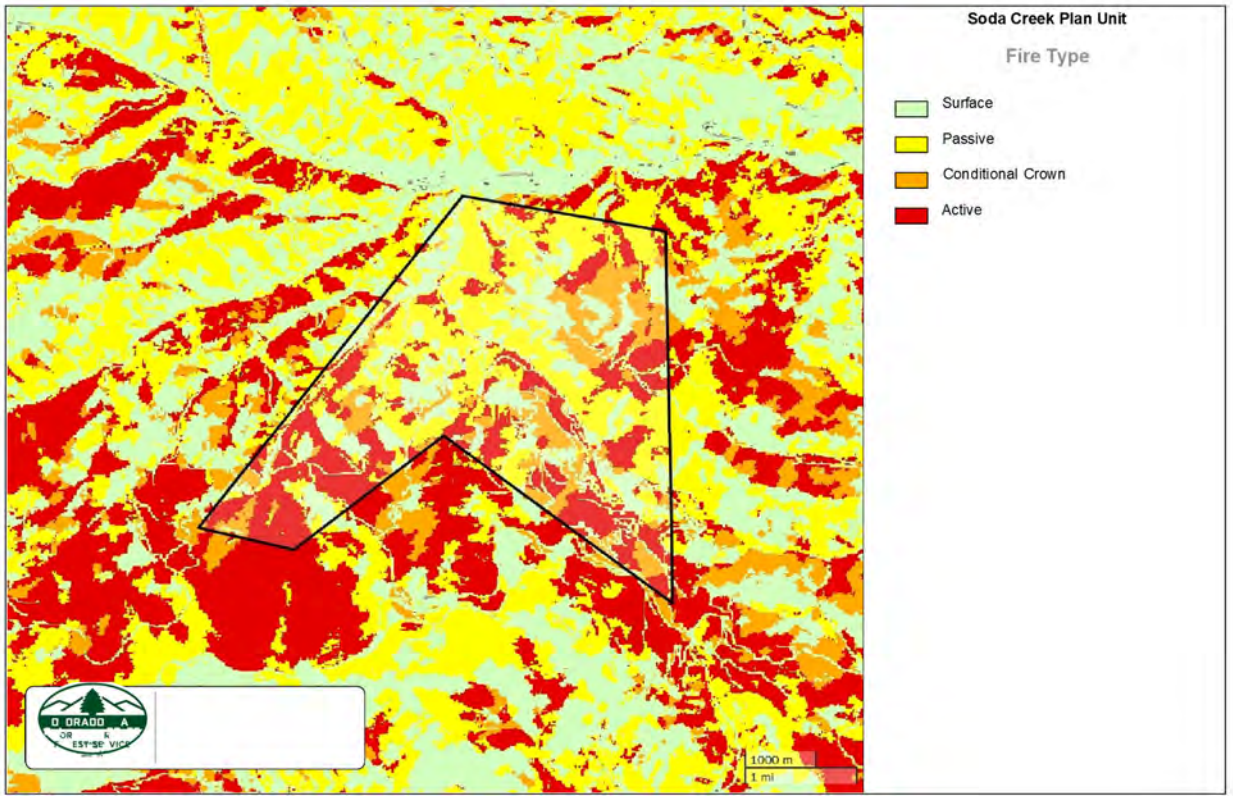
Recommendations for collective action in the Mill Creek-Fall River Plan Unit:

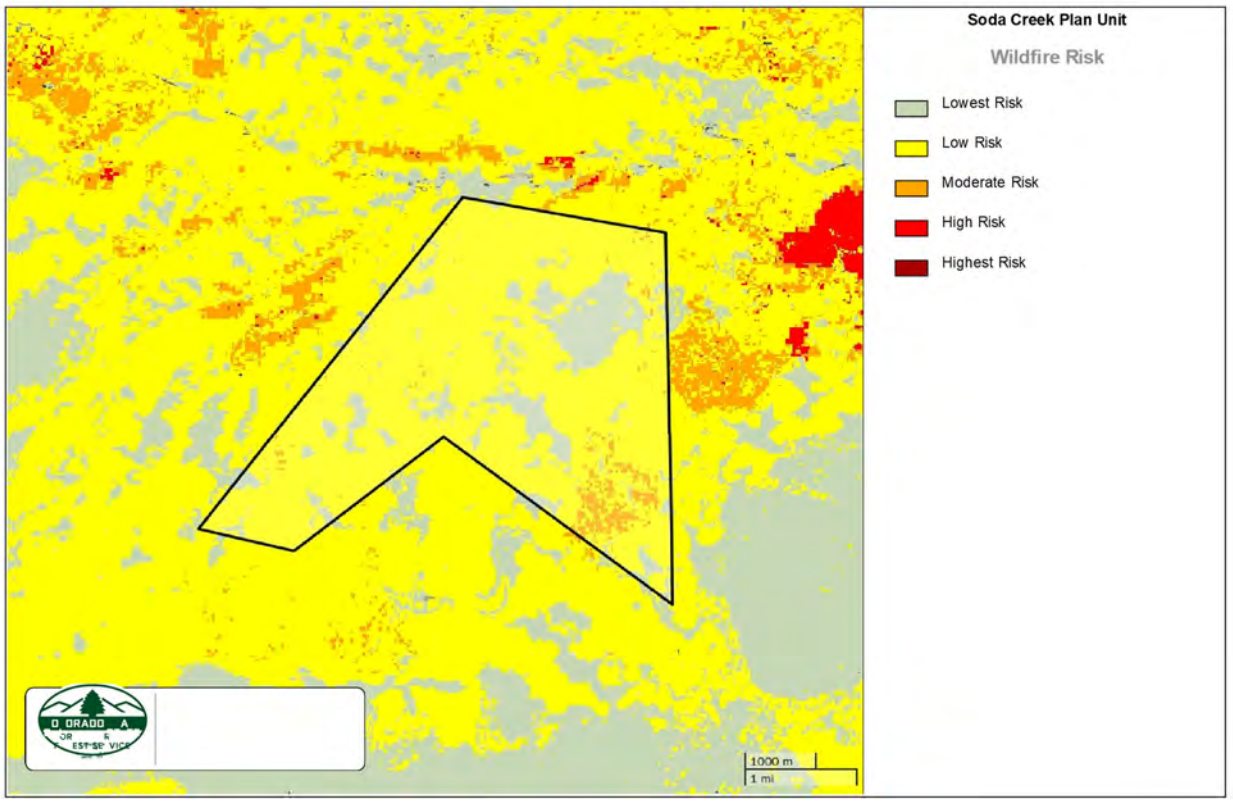
- Perform Home Hardening to reduce the home ignition potential from embers and structure-to-structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure.)
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Perform evacuation planning and education with the residents of the unit. Install evacuation signs in selected areas to assist in evacuating visitors.
- Work with private landowners and USFS personnel to develop mitigation actions to improve the POD lines in Mill Creek, Fall River, and York Gulch drainages. These mitigation actions should connect with the North Empire projects and existing mitigation areas in Gilpin County.
- Work with private property owners, USFS, and Gilpin County to develop and implement roadside mitigation actions on Bald Mountain Road.

- Perform roadside mitigation on the county road between Saint Mary's neighborhood and Rainbow Road to allow emergency crews to access the area during evacuation operations.
- Work with private property owners to remove the dead-standing trees at the base of the Mill Creek Drainage.
- Perform mitigation adjacent to the Clear Creek Open Space trail in Mill Creek to act as a fire break.

The fire danger in the unit is high. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 60 chains per hour or greater. Fires in the unit can produce debris flows post-fire that will directly affect water quality for the downstream water users in the metro area. Crown fire activity can produce ember showers extending up to two miles ahead of the approaching fire front. These events can start spot fires in the next adjacent drainage. This would cause fire growth to continue from west to east with the prevailing winds and directly threaten the City of Central City, Russel Gulch Neighborhood, Blackhawk City, and Idaho Springs. The embers pose more risk than passing the crown fire to the structures. Home hardening and mitigating the areas within 50 feet of the structure are crucial to reducing the probability of ignition.

Soda Creek-Blue Valley – Low to Moderate relative risk rating








The vegetation in the unit consists primarily of lodgepole pine, with a timber understory composed of large quantities of timber litter and young trees. Ponderosa, spruce-fir, and mixed conifer are also present.

The plan unit comprises 261 structures, distributed throughout the valley floors, in the Blue Valley neighborhood on the mountain above the drainages, and scattered within the adjacent valley sides. All structures are in the wildland-urban interface risk category.

Soda Creek is a two-lane paved county road providing primary access to this unit. The road is in good condition and has limited pullout areas to support evacuation activities while emergency response units enter the area. The roads within the unit may have limited survivability in the event of a wildfire. The secondary roads within the unit are improved and unimproved dirt-surfaced roadways with continuous fuels adjacent to both sides of the road surface. These roads have limited pullouts and narrow areas that would not allow two-way traffic. Homes in the unit do not have address markers at the start of the driveways; this forces responders to utilize the response map book to locate homes.

Recommendations for collective action in the Soda Creek-Blue Valley Plan Unit:

- Perform Home Hardening to reduce the home ignition potential from embers and structure-to-structure ignitions.
- Mitigation of private property to the property lines. (The lot size can limit the ability to mitigate beyond 150 feet from the structure.)
- Perform roadside mitigation, including shaded fuel breaks, complete fuel removal to 50 Feet on each side of the road surface, or a combination of both.
- Perform evacuation planning and education with the residents of the unit. Install evacuation signs in selected areas to assist in evacuating visitors.

The fire danger in the unit is low to moderate. Due to fuel and topography, fires within the drainages in the unit have the potential for flame lengths over 12 feet. The high-intensity fire will support passive and active crown fires throughout the unit. The rate of spread potential is 40 to 60 chains per hour. Fires in the unit can produce debris flows post-fire that will directly affect water quality in Idaho Springs and the downstream water users in the metro area. Crown fire activity can produce ember showers extending up to two miles ahead of the approaching fire front. The embers pose more risk than passing the crown fire to the structure. Home hardening and mitigating the areas within 50 feet of the structure are crucial to reducing the probability of ignition.

3.c. Community-Wide Recommendations

Slash Management Recommendations

Residents in the Clear Creek Fire Authority have experienced difficulties with slash management, like many other communities in Colorado. During the community engagement process for this CWPP, residents shared that access to inexpensive/easy slash disposal would help them do more work to reduce wildfire risk on their property. Clear Creek Fire County currently accepts slash at the Transfer Station. However, residents must pay to drop off the slash, and the current site is not sufficiently staffed to handle the volume of slash that will be created by implementing the recommendations outlined in this CWPP.

The Authority provides two woodchippers for district residents to use. This allows residents to process the small-diameter slash generated during mitigation. Wood products larger than the residents utilize the chipper capacity as firewood. In cases where the resident does not desire to utilize the wood, it is collected by the Authority and processed into firewood to support the Low-Income Firewood Program.

The Authority has a burn pile collection area at the Dumont station that allows residents to remove slash from their property to be burned during the winter. Saint Mary's neighborhood and the Town of Empire have provided community collection sites to support winter pile burning in the past. This program allows for no-cost fuel reductions that do not produce wood products that require future disposal.

WUI Building Regulations

Should property or home improvements involve the county permitting process, the County's Wildfire Hazard Mitigation Plan Building Code amendment (1995) provides a framework for required improvements that directly address the importance of reducing wildfire hazards around each home.

The Defensible Space Plan will be developed by the Site Development Inspector and explained in detail in the Department's information packet. The Inspector will also determine whether the Wildfire Hazard Point System Agreement will be required at the time of the homeowner's driveway permit site visit. The Building Department is then notified, and the Agreement is initiated and mailed to the property owner or to the general contractor to be completed and later submitted with the building permit documents (Clear Creek County Site Development Department).

Adopting the International Wildland Urban Interface Code at the municipal and county levels to support home hardening. Consider adopting and amending the code recommendations to match current research recommendations (Maranghides et al., 2022):

- Home and structure setbacks should be structure-centric, not parcel-centric. Cross-boundary structure separation should always be a consideration.
- Existing high-density housing areas should prioritize home hardening instead of defensible space.
- New high-density developments should have complete defensible space and buildings that are extremely resistant to ignition. They should have HOAs or other forms of financial and regulatory collaboration set up to maintain community wildfire protection.
- Combustible fences should not be double-wide or placed less than 3 feet apart in parallel.

This program should be replaced by the adoption of the International Code Council Wildland Urban Interface Code at the county and municipal level.

Evacuation Planning and Capacity

There is a high likelihood of evacuation congestion and long evacuation times during a wildfire in Clear Creek Fire Authority. The community areas accessed through a single two-lane county road will experience congestion during evacuations that could slow travel to a crawl. Interstate 70 will be critical for

In the event that the CCC Sheriff orders a community to evacuate because of a threatening wildfire, residents should leave in an orderly manner. The Sheriff would proclaim the area that is required to be evacuated. The

need for evacuation can occur without notice when conditions for wildfire are favorable. Homeowners should be prepared to evacuate without formal notice. Human safety is the number one concern in an evacuation.

District residents should have a predetermined action plan for the eventuality of a wildfire. This plan should include closing windows and doors while leaving a backdoor unlocked, placing a ladder to the roof for firefighter access, and leaving porch lights on so the home can be seen at night. Families should have meeting locations and phone numbers if family members are separated. A plan to leave quickly with essential items should be included. Some refer to these items as the "Four Ps:" Pets, Papers, Pills (medications), and Photos.

Evacuation procedures vary according to subdivision. CCC and its emergency response agencies should ensure that every resident has the opportunity to become familiar with these procedures. Evacuation plans should outline available evacuation centers and procedures to activate them. Large-animal evacuation centers and assistance teams, including the CCSO Animal Control Division, must also be identified. These procedures should be addressed in public or HOA meetings, with information eventually being distributed door-to-door.

Upon returning to a home after a fire, residents should be told to monitor the exterior for smoke for several days. Embers may lodge in small cracks and crevices and smolder for several hours or days before flaming.

(**Figure 3.c.1**). **Mitigation actions along sections of road with high risk for non-survivable conditions during a wildfire can increase the chances of survival for residents stranded in their vehicles during and decrease the chance that roadways become impassable due to flames.**

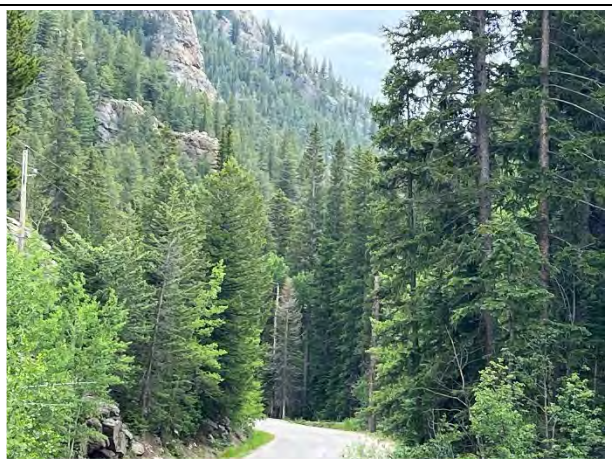
Survivable Roadways	Potentially Non-Survivable Roadways
	
	

Figure 3.c.1*.Few roads in Clear Creek Fire Authority have been well mitigated by removing tall trees and saplings, removing limbs on the remaining trees, and keeping grass mowed (left images). Most roads could experience*

potentially non-survivable conditions because thick forests line them with an abundance of ladder fuels (right images).

Reliable technology that provides warnings and information about evacuations can help residents feel confident in their ability to evacuate during a wildfire. Clear Creek uses Lookout Alert HOAs, and residents should actively extend awareness about Lookout Alert to neighbors unaware of the program. Residents should enroll their cell phone numbers, email addresses, and landline numbers into the system. The ability to receive emergency alerts can be compromised during wildfire events due to loss of power or communication equipment damage.



We recommend the following steps for residents, HOAs, community groups, Clear Creek Fire Authority, and the Creek County Sherriff's Office to address evacuation concerns in Clear Creek Fire Authority:

- Conduct tree removal, cut low limbs, and mow grass along roadways to increase the likelihood of survivable conditions during a wildfire. Prioritize the roads with the most traffic and congestion and work out to the less congested roads. See **Section 4.d.** for recommended approaches to reduce wildfire risk along roadways.
- Coordinate with the Clear Creek] County Sheriff's Office to conduct evacuation drills to practice safe and effective evacuation for the entire Clear Creek Fire Authority.
- Coordinate with Clear Creek County Office of Emergency Management to increase participation in the local emergency alert system, Lookout Alert, across Clear Creek Fire Authority. Unfortunately, only 57% of respondents to the CWPP survey indicated that they have signed up for Lookout Alert, but this number should ideally be 100%.
- Regularly test Lookout Alert to ensure timely and accurate communication could occur during an evacuation.
- Educate residents about warning systems, protocols for evacuation orders, and evacuation etiquette prior to the need to evacuate the community. Communicate the importance of following evacuation orders; **failing to leave the community promptly during a wildfire emergency can put first responders at risk.**
- Encourage residents to leave with one vehicle per household to reduce congestion for everyone.
- Encourage all households to develop family evacuation plans and to pack go-bags that are ready. Currently, 54% of respondents to the CWPP survey have evacuation plans for their families, and 54% have go-bags ready.
- Encourage residents to work with their neighbors to develop a plan for helping each other with evacuation if a resident is not at home, school-aged children or pets might be home alone, or residents have mobility impairments and need special assistance.
- Encourage residents to evacuate whenever they feel unsafe, even before receiving mandatory evacuation orders. All residents should leave promptly when they receive a mandatory evacuation order. This means having a family emergency plan already in place and having go- bags prepacked.
- Evaluate the efficacy of alternate methods of warnings and alerts, such as warning sirens. Research suggests that individuals trust and are more likely to respond to sirens than other warning systems like social media (National Academies of Sciences, Engineering, and Medicine, 2018).
- Ensure that warnings and alerts are understood by all residents, including those with English as a second language and hearing impairments.

Accessibility and Navigability for Firefighters

Shared Driveways and Community Roads

Residents, Clear Creek Fire Authority, HOAs, and Clear Creek County can work together to ensure emergency responders can locate and access everyone's home. Narrow roads without turnarounds, tree limbs hanging over the road, and lots of dead and down trees by the road may make firefighters choose not to defend your home during a wildfire event (Brown, 1994). More than half of the plan units in Clear Creek Fire Authority have some roads inaccessible to fire engines.

Where feasible, Clear Creek Fire Authority and HOAs should improve roadway access by widening road networks in filing with narrow roads and creating turnarounds and pullovers to accommodate fire engines and two-way traffic during evacuation. The community can apply for grants and work with the Clear Creek County Office of Emergency Management each spring to remove trees from along roads to reduce the chance of non-survivable conditions occurring during wildfires. Residents can remove trees along driveways and prune low-hanging branches to increase horizontal and vertical clearance. According to the National Fire Protection Association, driveways and roads should have a minimum of 20 feet of horizontal clearance and 13.5 feet of vertical clearance to allow engines to access the roads safely (O'Connor, 2021).

3.d. Outreach and Education

Clear Creek Fire Authority should continue to engage with community members using various methods, including community ambassadors, social media, and education materials for visitors of short-term rentals. The following priority recommendations may fall to different entities or partners within and around Clear Creek Fire Authority. Community informational Kiosk locations will provide a consistent location to relay fire danger information along with risk reduction information.

As your community makes progress on the top-priority actions outlined below, refer to the fire adapted communities' "wheel" (**Figure 3.1**) and seek additional ideas and resources from the Fire Adapted Community Learning Network and local state resources such as, [*ex: Fire Adapted Colorado (FACO)*]. Visit their websites for more information on their programs and upcoming events.

Firewise Community

While Clear Creek Fire Authority currently does not have any current Firewise communities within its borders, working to develop all neighborhoods into a Firewise neighborhood is the future direction. The Saddleback-Floyd Hill neighborhood had previously been a Firewise community and will need to recertify. This is a great foundation to build for planning community outreach and education events. The Clear Creek Fire Authority hosts educational days throughout the summer to talk to residents about wildfire preparedness and mitigation. Visit https://www.clearcreekfire.com for more information about when and where this event will occur in 2025. Additional information can be found at https://www.nfpa.org/education-and-research/wildfire/firewise-usa

Neighborhood Ambassador Program

Clear Creek Fire Authority intends to develop a Neighborhood Ambassador Program to expand community outreach while providing resources. The Neighborhood Ambassador Program could help residents better understand wildfire risks and spark coordinated action that effects positive change in Clear Creek Fire Authority. The neighborhood ambassador approach requires engaged volunteer ambassadors and a dedicated lead coordinator. See

Table 3.d.1 from the guide *Fire adapted communities neighborhood ambassador approach: Increasing preparedness through volunteers* for effective activities that neighborhood ambassadors can undertake (Wildfire Adapated Partnership, 2018).

***Table 3.d.1**. Potential activities for the neighborhood ambassador program. Table adapted from (Wildfire Adapated Partnership, 2018).*

Example activity	Ambassador responsibility	Coordinator responsibility
Educational programs about defensible space and home hardening	Gauge the interest of neighbors and select topics. Find a meeting location. Encourage neighbors to attend.	Arrange for specialists to make presentations. Advertise the program through HOA newsletters, social media, etc.
Emergency planning	Organize an event for people to ask firefighters and law enforcement personnel about emergency planning and evacuation. Encourage residents to work with their neighbors to develop a plan for evacuation if a resident is not at home, school-aged children or pets might be home alone, or residents have mobility impairments and need special assistance.	Provide information to residents about emergency planning and go-bags. Arrange for specialists to make presentations. Advertise the program through HOA newsletters, social media, etc.
Community chipping day	Secure HOA buy-in and request financial support. Select a date and organize event logistics. Encourage neighbors to attend.	Secure fuels module availability and grants or other financial support. Address liability and safety concerns. Advertise the program through HOA newsletters, social media, etc.
Defensible space projects	Work with neighbors to identify high-priority project locations using insights from this CWPP. Secure HOA buy-in and request financial support. Select contractors and solicit bids. Oversee project completion.	Work with a certified forester for insights about effective treatment location and prescriptions, following guidelines in this CWPP. Identify potential contractors. Write the scope of work for the contract. Inspect the project upon completion. Celebrate success through social media posts and newspaper articles.

3.e. Considerations for Vulnerable Populations

Social factors influence how impacted an individual or a community may be during wildfire. This so-called social vulnerability is due to a lack of access to resources. The resources that are lacking can include infrastructure, social support, health, and financial means (Cutter et al., 2003). While Clear Creek Fire Authority at large may be well prepared for wildfire after engaging in this CWPP planning process, there is potential for some to fall through the cracks or struggle to engage in necessary mitigation and preparation work, which makes them more at risk in the event of a fire.

Poverty, racial and ethnic discrimination, age, and physical ability are frequently factors that are associated with social stratification and result in resource inequity (Crowley, 2020; Cutter et al., 2003; Davies et al., 2018; Emrich et al., 2020; Hewitt, 2013; Ojerio et al., 2008). Thus, it is important to consider ensuring that all community members can participate in the wildfire preparedness actions outlined in this CWPP.

Pre-fire

Before a fire, it is important to ensure that preparation and potential evacuation communication materials are available in other languages spoken by Clear Creek Fire Authority. The sole use of English in materials makes it difficult for people with lower proficiency in English to understand. This includes children, people with low literacy, and people who primarily speak other languages. Materials that use images and diagrams rather than words can ensure that the broadest audience can understand any materials that Clear Creek Fire Authority distributes about wildfire.

Another significant barrier is the ability to do the work recommended in this plan. Populations that this may impact include those in lower income brackets who don't have the resources to harden their homes (i.e., by replacing their roofs, siding, and decks with non-combustible construction materials) and those with physical disabilities or impairments that keep them from doing the physical labor often involved in preparation and mitigation actions themselves. This CWPP is a great way to begin addressing economic disparity because it can provide a basis for Clear Creek Fire Authority to apply for grant funding to support mitigation work on behalf of the community.

To indeed reduce the economic barrier at a community level, community leaders must design programs that are accessible for all income brackets. For example, providing mitigation services such as a community chipping program free for residents who fall within lower income brackets can encourage them to mitigate their properties when they may have otherwise found it inaccessible. Similarly, volunteer days can help those who are not physically able to engage in pre-fire protection of their home by connecting physically able community members with them to help do home-hardening work.

Post-fire

Following a fire, households are often solely responsible for their recovery. While challenging for everyone, this is a particular issue for those without equal access to the social aid that is available, like FEMA recovery funds, information on the internet, and claims for insurance (Laska and Morrow, 2006; Méndez et al., 2020). Groups impacted by this can include older adults, undocumented folks, and those who speak English as a second language or not at all.

The focus during the post-fire period needs to be on the following critical tasks:

- Account for all impacted residents.
- Ensure the area is safe for residents to return (Hazard trees mitigated, roads are passable, power lines are inspected, and hazards mitigated, and the area has been determined not at risk for secondary fires)
- Conduct FEMA damage assessments.
- Evaluate the risk to the watershed and begin mitigation actions.
- Assist impacted residents with obtaining support services.

3.f. Recommendations to Enhance District Capacity

District Capacity Assessment

The district has mutual aid and auto-aid agreements with Central City Fire Rescue, Evergreen Fire Rescue, Foothills Fire Rescue, Summit Fire Rescue, Timberline Fire Rescue, and East Grand Fire Rescue. These agreements enable the departments to provide and receive apparatus and firefighters to support the growing number of wildland fire incidents. In addition to local agreements, the Colorado Division of Fire Prevention and Control (DFPC) can provide hand crews, aircraft, and apparatus through the Colorado Mutual Aid System. Federal fire resources are available through the Wildland Annual Operating Plan (AOP).

The district needs to add full-time wildland personnel to perform project planning and pile-burning operations during winter. This will allow for additional community outreach and project implementation. Increasing the average daily number of career firefighters will provide a stronger foundation for fire response, which can be supplemented with volunteer personnel. The volunteer firefighters are critical to the department's success, but they may have limited availability during periods when they are not on duty. These personnel may also experience delayed response times due to traffic and long travel distances.

Recommendations

- Recruit and train community members to function as wildland firefighters.
- Increase the number of NWCG-qualified Incident Commander Type 4 personnel.
- Increase the number of NWCG-qualified Crew Boss and Engine Boss personnel.
- Hire a Wildland Mitigation Program Manager to coordinate the community mitigation actions, property assessments, and community chipping programs.
- Hire an Assistant Emergency Manager for the Clear Creek Sheriff's Office to increase planning and post-event recovery capabilities.
- Transition of the seasonal mitigation crew to year-round to complete winter project planning and pile burn operations

3.g. Post-Fire Plan

The recovery process for the community is critical to return the community to its pre-fire state. The focus during the post-fire period needs to be on the following critical tasks:

- Account for all impacted residents.
- Ensure the area is safe for residents to return (Hazard trees mitigated, roads are passable, power lines are inspected, and hazards mitigated, and the area has been determined not at risk for secondary fires)
- Conduct FEMA damage assessments.
- Evaluate the risk to the watershed and begin mitigation actions.
- Assist impacted residents with obtaining support services.

3.h. Funding Opportunities for Wildfire Hazard Mitigation and Emergency Preparedness

There are many funding opportunities from federal, state, and local agencies, as well as non-profits, to assist in forest health and wildfire mitigation projects. These funds can increase capacity but cannot cover all the costs of fire mitigation needed within the valley. Residents and partners must contribute funds and time to complete this work.

Opportunities from Local and State Agencies in Colorado

- **Forest Restoration & Wildfire Risk Mitigation** grants reduce the risk of wildfire to people, property, and infrastructure and promote forest health and restoration.
- **Colorado IRA Urban & Community Forestry** grants support actions to grow the tree canopy in disadvantaged areas of Colorado.
- **Wildfire Mitigation Incentives for Local Government** grants match revenue raised by local governments for forest management and fuels reduction or expand existing programs.
- **Wildfire Mitigation Outreach** grants support outreach among landowners in high wildfire hazard areas.

Funding from Federal Agencies

- **Building Resilient Infrastructure and Communities (BRIC) grant program** supports states, local communities, Tribes, and territories as they undertake large-sale projects to reduce or eliminate risk and damage from future natural hazards. Homeowners, business operators, and non-profit organizations cannot apply directly to FEMA, but they can be included in sub-applications submitted by an eligible sub-applicant (local governments, Tribal governments, and state agencies).
- **Hazard Mitigation Assistance Grants Program (HMGP)** provides funding to state, local, Tribal, and territorial governments so they can rebuild in a way that reduces, or mitigates, future disaster losses in their communities. This grant funding is available after a presidentially declared disaster.
- **Assistance to Firefighters Grants (AFG)** help firefighters and other first responders obtain critical resources necessary for protecting the public and emergency personnel from fire and related hazards.
- **Fire Prevention & Safety (FP&S) Grants** support projects that enhance the safety of the public and firefighters from fire and related hazards.
- **Staffing for Adequate Fire and Emergency Response (SAFER)** grants directly fund fire departments and volunteer firefighter organizations to help increase their capacity.
- **Community Wildfire Defense Grants** (CWDG) are funded annually through the National Forest Service and help communities take action on implementation projects outlined in recent CWPPs.

Opportunities from Non-Governmental Organizations

- Coalitions and Collaboratives, Inc. manages the **Action, Implementation, and Mitigation Program (AIM)** to increase local capacity and support wildfire risk reduction activities in high-risk communities. AIM provides direct support to place-based wildfire mitigation organization with pass-through grant funding, on-site engagement, technical expertise, mentoring, and training on mitigation practices to help high-risk communities achieve their wildfire adaptation goals.

Supporting the Fire Protection District

- The **Staffing for Adequate Fire and Emergency Response (SAFER)** grants can help fund staff capacity for fire departments.
- The **Assistance to Firefighters Grants (AFG)** can provide critical response resources for firefighters and emergency responders.
- Community support is also vital to the success of the fire stations:
    - Clear Creek Fire Authority is supported by [*ex: volunteer responders]* who respond to fires, medical emergencies, and rescues every day of the year. Learn more about how you can [*ex: volunteer*] by contacting your local fire department.
    - Financial support in the form of [*ex: monetary donations or support of local ballot measures that provide tax revenue*] for Clear Creek Fire Authority is vital to their success in responding to residents in their time of need.
    - Attend events hosted by Clear Creek Fire Authority. Seeking out information to protect your home from fire danger can also help protect your local firefighters. Sharing this information within your community can build community resilience and help lower implementation costs for individual homeowners for many projects.

4. Implementation Recommendations for Fuel Treatments and Ecological Restoration

4.a. Objectives and Benefits of Fuel Treatments and Ecological Restoration

Fuel Treatments

Fuel treatments are a land management tool for wildfire hazard by decreasing the amount and altering distribution of wildland fuels. Common goals of stand-treatments are to reduce the risk of active or passive fires and to reduce fire intensity. This is achieved by trees, increasing the distance between tree crowns, small trees, shrubs, and low branches to increase the between surface fuels and tree crowns, and removing trees and other dead vegetation (Agee and Skinner, Fuel treatment methods include tree thinning, pruning, burning, broadcast prescribed burning, and fuel mastication.

> "Given the right conditions, wildlands will inevitably burn. It is a misconception to think that treating fuels can 'fire-proof' important areas... Fuel treatments in wildlands should focus on creating conditions in which fire can occur without devastating consequences, rather than on creating conditions conducive to fire suppression" (Reinhardt et al. 2008).

reducing the scale fuel crown removing removing distance downed 2005). pile

Strategically located, high-quality fuel treatments can create tactical options for fire suppression (Jolley, 2018; Plucinski, 2019; Reinhardt et al., 2008). Fuel treatments along trails, ridgelines, and other features can allow firefighters opportunities to use direct or indirect suppression techniques to contain fire spread. The USFS Blue Creek project, adjacent to the Town of Empire, provides a fuel break to limit west-to-east fire spread down the valley while improving wildlife habitat.

Ecological Restoration

Ecological restoration is the process of assisting the recovery of an ecosystem damaged, degraded, or destroyed. (SER, 2004). Many forests in the western United States have been damaged, degraded, or destroyed because of changes to their historical fire regimes following Euro-American colonization.

The area has sedimentation issues due to the historic mining activities and the construction of Interstate 70. These conditions increase sedimentation within the Clear Creek Watershed, impacting water quality for 450,000 end users. In addition to water quality issues, the current stream conditions throughout the watershed are prone to flooding due to limited channel size and obstructions within the waterways resulting from timber litter. Mitigating these issues will require both pre-fire and post-fire actions to be performed. The 2021 Upper Clear Creek Watershed Pre-Wildland Fire Planning Study outlines the current conditions and the suggested risk reduction strategies to be implemented.

Fuel treatments can sometimes achieve both ecological objectives and wildfire risk reduction. Restoration treatments in dry-mixed conifer and ponderosa pine forests tend to achieve both fuel treatment and ecological restoration objectives. In contrast, a treatment that creates a forest with widely, evenly spaced trees could be an effective fuel treatment, but would not achieve ecological objectives in most forest types.

Treatment Types Covered in the CWPP

This CWPP covers fuel treatments in the home ignition zone 3, stand-level fuel treatments, and roadside fuel treatments, each with its own objectives and benefits:

Fuel Treatment Category	Primary Objectives and Benefits
Defensible space in home ignition zone 3 (30-100 feet away from the home)	Reduce surface fuels, reduce tree density, and increase the distance between surface and canopy fuels. Moderate fire behavior near structures increases their chance of surviving a wildfire. Increase safety and access for wildland firefighters. Increase the visibility of structures from roadways to assist wildland firefighters with locating and accessing your home. Coordinate with partners when home ignition zone 3 overlaps neighboring properties to address shared wildfire risk. Linked defensible space creates safer conditions and better tactical opportunities for wildland firefighters. Due to their strategic value, defensible space projects that span ownership boundaries are better candidates for grant funding.
Stand-level ecological restoration/fuel treatments	Reduce surface fuels, reduce tree density, and increase the distance between surface and canopy fuels. Restore ecological conditions to create more fire-resilient ecosystems. Reduce the likelihood of high-severity wildfires near communities. Create tactical opportunities for fire suppression.
Roadside fuel treatments	Dramatically reduce or eliminate surface and canopy fuels. Reduce the likelihood of non-survivable conditions along roadways during wildfires. Create tactical opportunities for fire suppression. Increase the visibility of structures from roadways to assist wildland firefighters.

4.b. Priorities for Ecological Restoration and Roadside Fuel Treatments in Clear Creek Fire Authority

Altering potential wildfire behavior and restoring ecological conditions requires a landscape-scale approach to treatments across ownership boundaries. We located and prioritized project areas for roadside fuel treatments, ecological restoration, and/or stand-level fuel treatments within and around the Clear Creek Fire Authority to be implemented in the next five years. These project areas cross ownership boundaries and require community-wide commitment, coordination, and collaboration among private landowners, public land managers, and forestry professionals to create successful outcomes.

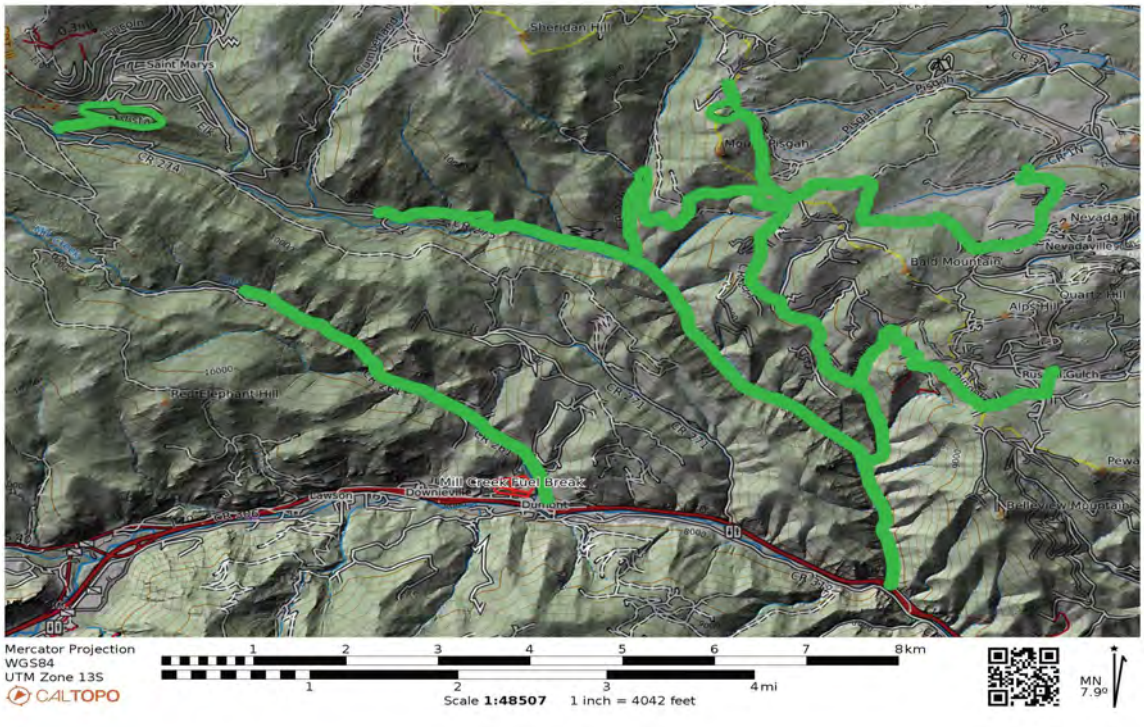
The projects proposed in the 2008 Clear Creek County CWPP and the subsequent local CWPIPs were evaluated from 2020 to 2023 to determine which projects had been completed and whether they were feasible to complete. This process identified that all the projects outlined in the respective plans, with the exception of two USFS large-scale projects, had not commenced. The Silverdale Historic District and Sawmill Gulch mitigation projects were identified to be completed during the evaluation period, with a 2024 completion. The Mill Creek-Fall River drainages were identified as high risk due to limited evacuation routes, the potential for extreme fire conditions, the risk to the watershed, and the potential for fires to leave the drainages and threaten areas to the east. A mitigation implementation plan was developed in 2023 to make this area the primary focus for 2025-2030.

The Clear Creek Wildland Partnership was formed in October 2022 to bring representatives from municipal and county governments and local, state, and federal fire agencies together to reduce the wildfire risk within the community. This group reviewed the existing plans and determined a path forward that would result in the completion of mitigation projects and risk reduction actions with individual property owners. This group has conducted monthly meetings since its inception and will continue to meet with the goal of completing the actions outlined in this updated CWPP while coordinating with the surrounding communities to complete their CWPP goals.

The section below describes the current conditions in each CWPP project area, treatment objectives and benefits, potential treatment types, project leads, and relative importance. The relative importance and feasibility of treatments is reflected in their timeline—partners aim to conduct treatments for immediate action in the next 1-2 years, short-term treatments are targeted for the next 3-4 years, and mid-term projects for the for the next 5-10 years. Mid-term projects will require more coordination, funding, and other enabling conditions before implementation can begin.

The CWPP implementation plan for stand-level and roadside treatments focuses on high-priority locations, but this does not discourage ecological restoration and fuel mitigation in other areas. If multiple neighbors collaborate to mitigate fire risk across ownership boundaries, it could attract funding and increase the priority and effectiveness of addressing those areas. Clear Creek Fire Authority, HOAs, residents, and land managers should reevaluate fire risks and reprioritize treatment units as conditions change over time.

Mill Creek-Fall River Risk Reduction



Mill Creek-Fall River encompasses 5924 acres of Clear Creek and Gilpin County land. This area was selected for a priority project because it consists of two drainages served by a single access road. The project area includes 973 homes. The property owners in these communities have been engaged in mitigating their individual properties while expressing concerns about being unable to evacuate the area effectively due to possible non-survivable road conditions.





Mill Creek-Fall River Wildland Risk Reduction

The Clear Creek County, Colorado communities of Mill Creek, Fall River, York Gulch, and St Mary's Glacier are served via a single county road access that limits emergency evacuation of residents and emergency services access into the area in the event of a wildland fire. The fuels within the area consist of moderate timber litter, moderate brush, and mixed conifer forest (MCFRYG, 2023). The area has received limited fuel reductions and currently has a large quantity of high-risk fuels directly adjacent to the road edge for eleven of the twelve miles of county access roads. The outlined risk reduction actions will reduce the risk of a wildland fire crossing the county roads, maintain road access during a fire event, improve area evacuation efficiencies, and reduce risk to homes within the project area.

Area Wildland Fire Risk

The project area has a moderate level of timber litter throughout that would support ground fire and areas of increased fuel density that will support limited crown fire development (MCFRYG, 2023). The average canopy spacing in untreated areas is 5-7 feet. In addition to the areas of timber litter, there are limited areas of moderate brush and large grass areas. The existing fuels are directly adjacent to the existing road edge throughout the project area. The proximity of the fuels combined with the available quantity adjacent to the roads directly increases the possibility of a fire resulting from the mechanical failure of a vehicle or as a direct result of a competent ignition source being thrown from a vehicle.

The current canopy configuration will support a limited canopy fire with isolated pockets that could support a running crown fire event (MCFRYG, 2023). Some areas of the National Forest have completed fuel reduction projects. These areas only provide limited risk reductions due to adjacent private property's ability to support fire movement around the treatment areas (FRCWPIP, 2013). The movement of fire on the continuous private land within the project area directly reduces the benefits of the risk reductions on the federal lands.

Risk Reduction Actions

Road Adjacent Fuels Reduction

The project will focus on Mill Creek, Fall River, York Gulch, and Bald Mountain Lane County roads. The ground fuel will be removed within twenty feet of the road edges and taken to an area of the project to be processed. The trees within the reduction will be thinned to produce an average canopy spread of fifteen feet. Brush will be removed from the project areas except for riparian brush adjacent to the river in both drainages.

Property Risk Evaluations and Risk Reduction Assistance

The area includes 895 structures at varied risk levels due to fire (MCFRYG, 2023). The homes with the highest degree of risk for loss, restricting safe egress, or posing a significant threat to the forest or other structures due to fire will be identified. The top two hundred high-risk homes will be the focus of receiving a wildland fire risk assessment and associated risk reduction plan. The agency personnel will work with the property owner to develop and implement risk-reduction actions (COCO, 2023). In cases where the resident does not have the physical ability and the means to fund risk reductions, agency assistance will be provided. The assistance will be provided as manpower is available.

Area Emergency Evacuation Planning and Implementation

The St Mary's Glacier subdivision evacuation planning and associated signage were completed in 2022. In 2023, an evacuation traffic plan was developed for the York Gulch subdivision to utilize the three available county roads that provide egress from the area. Evacuation planning for the areas of Mill Creek, Wild Wagner, and Fall River will begin in 2025 with a completion goal of September 2026. determine Travel distances from each residential unit to develop a primary and secondary evacuation route for each. The evacuation routes will be designated on an area map to include known hazards or travel restrictions.

Community meetings will be held with the area residents and emergency responders to review the proposed routes and elicit community input (COCO, 2023). The final plan and maps will be distributed to all residents and emergency agencies. The maps will include a QR code to facilitate the use of electronic mapping software and to allow for updates to be made. All evacuation routes will be marked with reflective signage that includes all intersections. A dry hydrant was installed in the area to support engine and aircraft water operations. The site is able to support a 5000-gallon helicopter dip site using a self-supporting tank.

Community Risk Reduction Partners

Successful completion and maintenance of the tasks contained in this plan will require coordination from the following groups and organizations:

Clear Creek Sheriff's Department, Gilpin County Sheriff's Department, Clear Creek County Public Works, Clear Creek Fire Authority, Timberline Fire Protection District, Fall River Homeowners Association, York Gulch Homeowners Association, St Mary's Glacier Property Owner Association, Colorado State Forest Service (Golden Office), and USFS Arapahoe and Roosevelt National Forest.

Implementation

Fuels Reduction

The Mill Creek area will be the focus for the 2025 working season. This work will begin in June 2025, with a projected completion date of September 2026. The crews will then move to Fall River between mile markers two and three. The crews will focus on completing the first three miles of Fall River and then move to York Gulch. The crews will spend the remainder of 2026 completing the risk reductions in York Gulch and assisting residents as time allows. The area from mile three to mile nine on Fall River will be the focus of the 2027 season.

Property Evaluations

Property risk reduction evaluations will be performed as manpower is available. If additional funding were to become available there would be two dedicated property evaluators hired. The evaluators would work with the property owners of the identified two hundred highest-risk structures to complete evaluations. This would continue each year until the identified homes have been completed. A new list of the next two hundred homes would then be developed, and the inspectors would work through that list in the subsequent years.

Evacuation Planning

The department dedicated one employee to completing the York Gulch Emergency Evacuation Plan in June 2023. The travel distance mapping was completed and verified with the assistance of Sheriff's Department employees. The initial maps were presented to the residents in July 2023 and then verified through community

volunteers. The community volunteers worked with the department to finalize the evacuation mapping and associated plans in August 2023 (COCO, 2023). The final evacuation signs will then be installed.

Resources and Funding Limitations

The program currently has a project crew of three personnel along with a community risk reduction specialist that manages the risk reductions. The evacuation planning and implementation will be performed by one agency person, York Gulch HOA members, and assistance from Gilpin and Clear Creek Sheriff's deputies. The property evaluations and associated risk reduction plan development are currently not staffed. The completion of these evaluations is a key part of the total risk reduction plans.

Current Available Funding

The program currently has funding for a three-person mitigation crew that works for twenty-two weeks a year. Two additional department personnel will provide project management, evacuation planning and implementation, and limited property evaluations.

Additional Funding Needs

The program requires a minimum of $50,000 additional yearly funding to fund the two property risk evaluation personnel. Additional funding beyond that level would allow for additional mitigation crew personnel to complete the risk reduction actions in a shorter period.

Program Progress Tracking

The areas mitigated will be marked on project maps using Cal Topo software. These maps will be made available to stakeholders monthly through a QR code. Before and after pictures of all project work will be taken to develop annual progress reports (COCO, 2023). These pictures will also be used as a reference for future project maintenance activities. The homes that have received a property risk reduction evaluation will be marked on the project maps to include their respective level of risk. The risk levels can be updated after risk reductions have been completed. The risk reduction evaluations will be uploaded to the department's records management system for future reference.

Future Project Area Maintenance

Clear Creek Public Works, Clear Creek Fire Authority employees, Timberline Fire Protection District employees, and community volunteers will maintain the completed risk reductions.

4.c. General Recommendations for Home Ignition Zone 3 and Stand-scale Treatments

Local knowledge and professional expertise are needed to design effective, site-specific fuel treatments based on the best available science. Specific fuel treatment recommendations depend on forest type, tree density, fuel loads, terrain, land use, and management objectives. The location and purpose of treatments also matter. Treatments in large, forested areas can include the retention of individual trees and groups of trees. Evenly and widely spaced trees might be reasonable in the home ignition zone 3, but this arrangement would not be appropriate for restoration-style fuel treatments.

Treatments in the home ignition zone 3 (30-100 feet away from the home) can restore historical forest structure. However, it is most important to focus on reducing wildfire risk to the home, creating safe conditions for firefighters, and increasing the visibility of your home from the road for firefighters. Homeowners often enjoy the more open forest around their homes because it allows more light, which encourages understory grasses and shrubs to grow, and in turn, can increase wildlife sightings near their homes. Home ignition zone 3 often overlaps neighboring properties and requires residents to work together to address shared wildfire risk.

For all fuel treatments, it is essential to address surface fuels. Forest management operations often increase surface fuel loads and can fail to achieve fire mitigation objectives if fuels created by the harvest activities (also known as slash) are not addressed (Agee and Skinner, 2005). Slash can include small trees, limbs, bark, and treetops. See **Section 4.e. Approaches to Slash Management** for pros and cons of different slash management options.

Mitigating the impacts of tree removal on soil compaction and erosion is also essential when treatments occur near streams and riparian ecosystems. The Colorado State Forest Service recommends streamside management zones of at least 50 feet. (CSFS, 2010). Treatments should be monitored for colonization of invasive, weedy plants that might require control through integrated weed management. Taking pictures of treatments before and after is always a good idea to help evaluate effectiveness and monitor changes over time.



4.d. General Recommendations for Roadside Fuel Treatments

Treatments along roadways require dramatically reducing fuels to create safe and survivable conditions. This includes removing most trees adjacent to the roadway, limbing remaining trees, and regularly mowing grass and shrubs (**Figure 4.d.1**). Treatments along roadways are often described as shaded fuel breaks (Dennis, 2005).

The width of an effective roadside fuel treatment (distance to the left and right of a road) is dependent on slope. Treatments are recommended to extend 150 to 240 feet off the downhill side of the road and 100 to 150 feet off the uphill side. Wider treatments are necessary on the downhill side on steeper slopes due to the exacerbating effect of slope on fire intensity when fires travel uphill (Dennis, 2005). Important aspects of all roadside fuel treatments include:

- Removing limbs overhanging the road to create ***at least*** 13.5-feet of vertical clearance. See **Figure 3.a.3** for a depiction of how to measure limb height.

- Removing trees alongside the road to create ***at least*** 20-feet of horizontal clearance.
- Removing trees to create ***at least*** 10-feet crown spacing between remaining trees within the roadside treatment zone specified in **Error! Reference source not found.**. See **Figure 3.a.3** for a depiction of how to measure crown spacing.
- Removing shrubs and regeneration that can serve as ladder fuels.
- Mowing grasses adjacent to the road.
- Remove the slash following fuel treatments. See **Section 4.e. Approaches to Slash Management** for pros and cons of different slash management options.

Along important evacuation routes that could experience extreme congestion, roadside treatments should be more aggressive and consist of nearly removing all trees within at least 30 feet of the roadways. Clearcutting along roads when surrounding forests remain dense can cause problems with snow drifting. Therefore, shaded fuel breaks might be more suitable in areas where drifting is more likely, or snow fences may need to be installed.

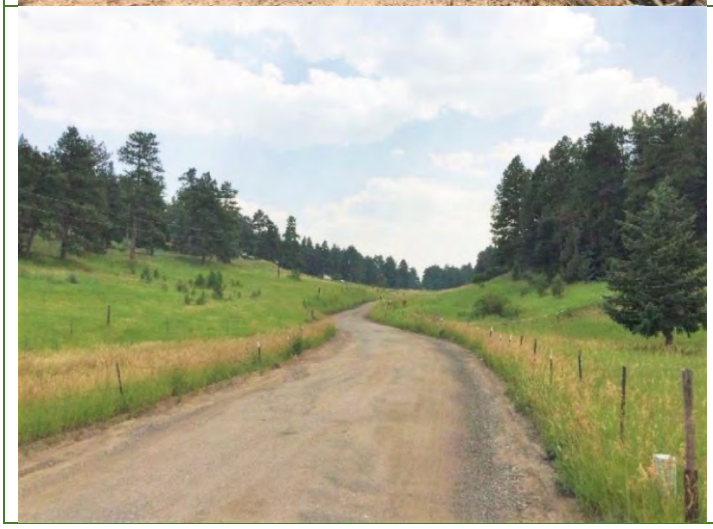
Some residents find roadside fuel treatments aesthetically displeasing because so many trees have been removed. Still, these treatments are vital for increasing the safety of residents and firefighters in this community. Roadside treatments must dramatically reduce fuel loads to mitigate the risk of non-survivable conditions developing during wildfires effectively.





Figure 4.d.1. *Effective roadside fuel treatments remove enough trees to result in widely space crowns, remove ladder fuels (seedlings, saplings, shrubs, and low limbs), and reduce surface fuels. More dramatic tree removal along roadways can create even safer roadside conditions where appropriate. Photo credits: Genesee Foundation (top) and USDA/FPAC/GEO/Google Earth (bottom).*

Table 4.d.1*. Examples of conditions occurring along roadways in the Clear Creek Fire Authority and suggestions for treatment and improvement*

Roadway example	Suggestions for improvement
	• Clear trees and tall shrubs away from the roadways • Clear extra space on the downhill side • Create regular pullouts and turnaround locations for engines
	• Mowing along the side of the road is recommended for the tall grasses. • The trees along this roadway are back from the road and upslope of the road. Trees should be removed to further away, but this would be lower priority than other roadways.



- Remove trees that are leaning over the roadway because they could fall and trap residents during an evacuation
- Clear all trees on the sides of the roadways
- Install mirrors on switchbacks to improve visibility

4.e. Approaches to Slash Management

Forest management operations often increase surface fuel loads and can fail to achieve fire mitigation objectives if fuels created by the harvest activities (also known as slash) are not addressed (Agee and Skinner, 2005). Slash can include small trees, limbs, bark, and treetops. Slash management is a critical step in the forest management process. It is unwise, ineffective, and even dangerous to conduct poor-quality fuels treatments that fail to reduce canopy fuels, result in increased surface fuel loads, and do not receive maintenance treatments. Such treatments can lead to a false sense of security among residents and fire suppression personnel (Dennis, 2005), and they divert limited funds away from more effective, strategic projects.

Leaving untreated slash within roadside fuel treatments is particularly counterproductive. The risk of active crown fire might be lower after a thinning operation, but untreated slash in fuel treatments can burn at high intensities and endanger the lives of residents stuck on roadways during a wildfire. Slash is easier and cheaper to manage along roadways due to access, and roads can serve as highly effective holding features for controlled burning of grass in the spring and fall and pile burning in the winter.

Methods for managing slash come with different benefits and challenges (***Error! Reference source not found.***). For example, lop-and-scatter and mastication do not remove surface fuels from the site, they only rearrange them. It can take a decade or more for slash to decompose to a point where it no longer poses a significant fire hazard. Broadcast prescribed burning and pile burning are more effective at removing surface fuels, but they require extensive planning and expertise to conduct properly.

Clear Creek Fire Authority and HOAs should work together to develop a slash management strategy for the area. This can and should include a combination of the following slash management techniques.

- Pile burning during the winter on the property or at a neighborhood collection site.
- Chipping the slash and spreading the chips on the property.
- Haul away the timber and slash

5. The Future of the CWPP and Implementation Plan

Below are strategic actions for residents, Clear Creek Fire Authority, other community groups, public land managers, county, state, and federal agencies, and non-profit conservation groups to accomplish in the short, mid, and long term (see definitions below). Some activities have low financial costs but require a fundamental shift in attitudes and behavior to prioritize wildfire risk mitigation. Other actions are more substantial and require commitment and collaboration across the community to pool resources, apply for grants, and make incremental steps toward meaningful change.

5.a. Implementation Phases

Short-term actions	Mid-term actions	Long-term actions
• Can be implemented within the remainder of 2025 • This can be accomplished within the current funding capacity for the fire district and its residents. • Can occur within the context of the current Clear Creek Fire Authority volunteer base, with modest expansion. • Can capitalize on current relationships with emergency response partners and land managers.	• Can be implemented within 18-24 months, generally in 2026 and 2027. • Will require expansion of the current [partner organization] volunteer base. • Requires new cooperative relationships with emergency response partners, land managers, and non-profit organizations. • Actions are already in the planning stages and have some portion of funding already identified.	• Require planning to start within 18-24 months so implementation can occur after 2027. • Requires multi-year planning and funding. • Requires extensive grant funding. • Requires local staffing beyond volunteers.

5.b. Implementation Activities and Responsibilities

Recommendation	Responsibility	Timeline
Category: Fire Adapted Communities		
Adopt the Fire Adapted Communities as the overarching vision and strategy for CWPP implementation.	Clear Creek Fire Authority, HOAs, and residents	Short-term
Volunteer annually during the Clear Creek Fire Authority Firewise Education Day during the	Residents	Shor to mid term

summer to encourage residents to implement home hardening and defensible space.		
Recommendation	**Responsibility**	**Timeline**
Category: District Capacity and Outreach		
Form a volunteer group called the CWPP Implementation Committee or another mutually agreeable name to continue the momentum developed by the CWPP. Create a regular meetup schedule to discuss progress.	Clear Creek Fire Authority	Short to mid term
Collaborate with adjacent fire protection districts to establish a cooperative paid outreach or mitigation position to increase capacity. They could be full-time or part-time, but they must be able to work directly with residents on mitigation.	Clear Creek Fire Authority	Long-term
Category: Home Ignition Zone		
Complete annual maintenance of your home's ignition zone. Add 1-2 new mitigation actions each year.	Residents	Short-term
Conduct 150 home assessments to provide specific recommendations to individual homeowners.	Clear Creek Fire Authority volunteers	Mid-term
Category: Linked Defensible Space and Fuel Treatments		
Focus initial efforts on mitigating fire risk in CWPP plan units with High fire risk, Mill Creek-Fall River, and Floyd Hill. Have formal conversations about each area within six months of this document being signed.	Clear Creek Fire Authority, HOAs, residents, and other partners	Short- to mid-term
Work together to pool financial and other resources and pursue grants. Apply for 3-5 grants annually.	Clear Creek Fire Authority, HOAs and residents	Mid- to long-term
Recommendation	**Responsibility**	**Timeline**
Category: Slash Management		
Develop a slash management strategy within 1 year, including judiciously relaxing slash-burning prohibitions.	Clear Creek Fire Authority and HOAs	Short to mid-term
Implement a community chipping program.	Clear Creek Fire Authority and HOAs	Mid-term
Category: Evacuation Preparedness		

Develop a family evacuation plan and go-bags. Plans should include considerations of pets and livestock if applicable.	Residents	Short to mid-term
Sign up for emergency notifications through the Lookout Alert system.	Residents	Short-term
Category: Firefighter Access and Evacuation Safety		
Improve driveway access for firefighters.	Residents and HOAs	Mid-term
Coordinate efforts to mitigate hazardous conditions along private and HOA roadways.	Clear Creek Fire Authority and local land managers	Mid- to long-term

5.c. CWPP as a Living Document

It is recommended that they be updated every 5 years, at a minimum. CWPPs older than 10 years are outdated and can exclude communities from successfully applying for competitive funding opportunities.

Community Wildfire Protection Plans are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA), which was passed by Congress on November 21, 2003, and signed into law by President Bush on December 3, 2003.

Plans must comply with the requirements outlined in the 2022 Colorado State Forest Service Minimum Standards for Developing Community Wildfire Protection Plans.

The update to this plan can either be a preface to this document or a new document that integrates with this one. The update to this plan should include:

- A description of progress made since the CWPP was created.
- A description of demographic changes in the community and other important infrastructure changes.
- Identification of new risks in the community.
- Updated risk analysis if major changes have happened between revisions.
- Updated and prioritized projects for the community with maps and descriptions

The review process involves:

- Reviewing the existing CWPP
- Engaging partners that have a vested interest in the plan
- Hosting collaborative meetings
- Documenting completed projects and demographic and landscape changes
- Developing updated wildfire risk reduction priorities
- Updating maps
- Distributing updated drafts to key partners for review and input prior to final approval
- Finalizing with core team signatures and submitting to Colorado State Forest Service (CSFS)

This CWPP is a **call to action!** Becoming a fire adapted community and decreasing wildfire risk takes concerted effort, time, and coordination. Use it to spark action on your property and across your neighborhood and entire community. The need to protect lives, safety, and property from wildfire is too great to wait.

6. Glossary

20-foot wind speed: The rate of sustained wind over a 10-minute period at 20 feet above the dominant vegetation. The wind adjustment factor to convert surface winds to 20-foot wind speeds depends on the type and density of surface fuels slowing down windspeeds closer to the ground (NWCG, 2021).

Active crown fire: Fire in which a solid flame develops in the crowns of trees and advances from tree crown to tree crown independently of surface fire spread (NWCG, 2018b).

Basal area: Cross sectional area of a tree measured at breast height (4.5 feet above the ground). Used as a method of measuring the density of a forest stand in units such as ft^2/acre (USFS, 2021b).

Broadcast prescribed burning (aka, prescribed burn, controlled burn): A wildland fire originating from a planned ignition in accordance with applicable laws, policies, and regulations to meet specific objectives (NWCG, 2018b).

Canopy cover: The ground area covered by the crowns of all trees in an area as delimited by the vertical projection of their outermost crown perimeters (NWCG, 2019).

Canopy fuels: The stratum of fuels containing the crowns of the tallest vegetation (living or dead), usually above 20 feet (NWCG, 2018b).

Canopy height: The average height of the top of the vegetated canopy (NWCG, 2019).

Canopy: The more or less continuous cover of branches and foliage formed collectively by adjacent tree crowns (USFS, 2021b).

Canyon: A long, deep, very steep-sided topographic feature primarily cut into bedrock and often with a perennial stream at the bottom (NRCS, 2017).

Chain: Chains are commonly used in forestry and fire management as a measure of distance. 1 chain is equivalent to 66 feet. Chains were used for measurements in the initial public land survey of the U.S. in the mid-1800s.

Chute: A steep V-shaped drainage that is not as deep as a canyon but is steeper than a draw. Normal upslope air flow is funneled through a chute and increases in speed, causing upslope preheating from convective heat, thereby exacerbating fire behavior (NWCG, 2008).

Community Wildfire Protection Plan (CWPP): A plan developed in the collaborative framework established by the Wildland Fire Leadership Council and agreed to by state, Tribal, and local governments, local fire departments, other partners, and federal land management agencies in the vicinity of the planning area. CWPPs identify and prioritize areas for hazardous fuel reduction treatments, recommend the types and methods of treatment on Federal and non-Federal land that will protect one or more at-risk communities and essential infrastructure, and recommend measures to reduce structural ignitability throughout the at-risk community. A CWPP may address issues such as wildfire response, hazard mitigation, community preparedness, and structure protection (NWCG, 2018b).

Convection: A type of heat transfer that occurs when a fluid, such as air or a liquid, is heated and travels away from the source, carrying heat along with it. Air around and above a wildfire expands as it is heated, causing it to become less dense and rise into a hot convection column. Cooler air flows in to replace the rising gases, and in some cases, this inflow of air creates local winds that further fan the flames. Hot convective gases move up slope and dry out fuels ahead of the flaming front, lowering their ignition temperature and increasing their susceptibility to ignition and fire spread. Homes located at the top of a slope can become preheated by convective heat transfer. Convection columns from wildfires carry sparks and embers aloft.

Crown (aka, tree crown): Upper part of a tree, including the branches and foliage (USFS, 2021b).

Defensible space: The area around a building where vegetation, debris, and other types of combustible fuels have been treated, cleared, or reduced to slow the spread of fire and reduce exposure to radiant heat and direct flame. It is encouraged that residents develop defensible space so that during a wildfire their home can stand alone without relying upon limited firefighter resources due to the great reduction in hazards they have undertaken. The Colorado State Forest Service defines three zones of defensible space: zone 1 (HIZ 1) as 0 to 5 feet from the home, zone 2 (HIZ 2) as 5 to 30 feet from the home, and zone 3 (HIZ 3) as 30 to about 100 feet from the home (CSFS, 2021).

Direct attack: Any treatment applied directly to burning fuel such as wetting, smothering, or chemically quenching the fire or by physically separating the burning from unburned fuel (NWCG, 2018b).

Draws: Topographic features created by a small, natural watercourse cutting into unconsolidated materials. Draws generally have a broader floor and more gently sloping sides than a ravine or gulch (NRCS, 2017).

Ecological restoration: The process of assisting the recovery of an ecosystem that has been damaged, degraded, or destroyed (SER, 2004). In ponderosa pine and dry mixed-conifer forests of the Colorado Front Range, ecological restoration involves transforming dense forests into a mosaic of single trees, clumps of trees, and meadows similar to historic forests that were maintained by wildfires and very resilient to them (Addington et al., 2018).

Ember: Small, hot, and carbonaceous particles. The term "firebrand" is also used to connote a small, hot, and carbonaceous particle that is airborne and carried for some distance in an airstream (Babrauskas, 2018).

Fire adapted community (FAC): A human community consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire (NWCG, 2018b). There is not a checklist or one silver bullet to become a FAC; there are many strategic actions and tools that should be used together to reduce shared risk. Risk mitigation is the responsibility of everyone who lives and works in the community—residents, community groups, fire protection districts, agency partners, non-governmental organizations, etc. Fire adaptation is an ongoing process of collaborative action to identify risk, mitigate it, and maintain the work overtime.

Fire behavior: The manner in which a fire reacts to the influences of fuel, weather, and topography. Characteristics of fire behavior include rate of spread, fire intensity, fire severity, and fire behavior category (NWCG, 2018b).

Fire history: A general term referring to the historic fire occurrence in a specific geographic area (NWCG, 2018b).

Fire intensity (aka, fireline intensity): (1) The product of the available heat of combustion per unit of ground and the rate of spread of the fire, interpreted as the heat released per unit of time for each unit length of fire edge, or (2) the rate of heat release per unit time per unit length of fire front (NWCG, 2018b).

Fire regime: Description of the patterns of fire occurrences, frequency, size, and severity in a specific geographic area or ecosystem. A fire regime is a generalization based on fire histories at individual sites. Fire regimes can often be described as cycles because some parts of the histories usually get repeated, and the repetitions can be counted and measured, such as fire return interval (NWCG, 2018b).

Fire severity. Degree to which a site has been altered or disrupted by fire; loosely, a product of fire intensity and residence time (NWCG, 2018b). Fire severity is determined by visually inspecting or measuring the effects that wildfire has on soil, plants, fuel, and watersheds. Fire severity is often classified as low-severity (less than 20% of overstory trees killed) and high severity (more than 70% of overstory trees kills). Moderate-severity or intermediate fire severity falls between these two extremes (Agee, 1996). Specific cutoffs for fire severity classifications differ among researchers. For example, Sherriff et al. (2014) define high-severity fires as those killing more than 80% of overstory trees.

Fire weather conditions: Weather conditions that influence fire ignition, behavior, and suppression, for example, wind speed, wind direction, temperature, relative humidity, and fuel moisture (NWCG, 2018b).

Firebreak: A natural or constructed barrier where all vegetation and organic matter have been removed down to bare mineral soil. Firebreaks are used to stop or slow wildfires or to provide a control line from which to work (Bennett et al., 2010; NWCG, 2018b).

Fireline: (1) The part of a containment or control line that is scraped or dug to mineral soil, or (2) the area within or adjacent to the perimeter of an uncontrolled wildfire of any size in which action is being taken to control fire (NWCG, 2018b).

Flame length: The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface). Flame length is measured on an angle when the flames are tilted due to effects of wind and slope. Flame length is an indicator of fire intensity (NWCG, 2018b).

Fuel reduction: Manipulation, combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage from wildfires and resistance to control (NWCG, 2018b).

Fuelbreak: A natural or manmade change in fuel characteristics which affects fire behavior so that fires burning into them can be more readily controlled. Fuelbreaks differ from firebreaks due to the continued presence of vegetation and organic soil. Trees in shaded fuelbreaks are thinned and pruned to reduce the fire potential but enough trees are retained to make a less favorable microclimate for surface fires (NWCG, 2018b).

Fuels mitigation / management: The act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire, in support of land management objectives (NWCG, 2018b).

Fuels: Any combustible material, most notably vegetation in the context of wildfires, but also including petroleum-based products, homes, and other man-made materials that might combust during a wildfire in the wildland-urban interface. Wildland fuels are described as 1-, 10-, 100-, and 1000-hour fuels. One-hour fuels are dead vegetation less than 0.25 inch in diameter (e.g., dead grass), ten-hour fuels are dead vegetation 0.25 inch to 1 inch in diameter (e.g., leaf litter and pine needles), one hundred-hour fuels are dead vegetation 1 inch to 3 inches in diameter (e.g., fine branches), and one thousand-hour fuels are dead vegetation 3 inches to 8 inches in diameter (e.g., large branches). Fuels with larger diameters have a smaller surface area to volume ratio and take more time to dry out or become wetter as relative humidity in the air changes (NWCG, 2018b).

Handcrews: A number of individuals that have been organized and trained and are supervised principally for operational assignments on an incident (NWCG, 2018b).

Handline: Fireline constructed with hand tools (NWCG, 2018b).

Hazards: Any real or potential condition that can cause injury, illness, or death of personnel, or damage to, or loss of equipment or property (NWCG, 2018b).

Home hardening: Steps taken to improve the chance of a home and other structures withstanding ignition by radiant and convective heat and direct contact with flames or embers. Home hardening involves reducing structure ignitability by changing building materials, installation techniques, and structural characteristics of a home (California Fire Safe Council, 2020). A home can never be made fireproof, but home hardening practices in conjunction with creating defensible space increases the chance that a home will survive a wildfire.

Home ignition zone (HIZ): The characteristics of a home and its immediate surroundings within 100 feet of structures. Conditions in the HIZ principally determine home ignition potential from radiant heat, convective heat, and ember cast (NWCG, 2018b).

Ignition-resistant building materials: Materials that resist ignition or sustained flaming combustion. Materials designated ignition-resistant have passed a standard test that evaluates flame spread on the material (Quarles, 2019; Quarles and Pohl, 2018).

Incident Response Pocket Guide (IRPG): Document that establishes standards for wildland fire incident response. The guide provides critical information on operational engagement, risk management, all hazard response, and aviation management. It provides a collection of best practices that have evolved over time within the wildland fire service (NWCG, 2018a).

Indirect attack A method of suppression in which the control line is located some considerable distance away from the fire's active edge. Generally done in the case of a fast-spreading or high-intensity fire and to utilize natural or constructed firebreaks or fuelbreaks and favorable breaks in the topography. The intervening fuel is usually backfired; but occasionally the main fire is allowed to burn to the line, depending on conditions (NWCG, 2018b).

Insurance Services Office (ISO) rating: ISO ratings are provided to fire departments and insurance companies to reflect how prepared a community is for fires in terms of local fire department capacity, water supply, and other factors (see more information online at https://www.isomitigation.com/ppc/fsrs/).

Ladder fuels: Fuels that provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees with relative ease. Ladder fuels help initiate torching and crowning and assure the continuation of crowning. Ladder fuels can include small trees, brush, and lower limbs of large trees (NWCG, 2018b).

Lop-and-scatter: Cutting (lopping) branches, tops, and unwanted boles into shorter lengths and spreading that debris evenly over the ground such that resultant logging debris will lie close to the ground (NWCG, 2018b).

Mastication: A slash management technique that involves using a machine to grind, chop, or shred vegetation into small pieces that then become surface fuel (Jain et al., 2018).

Mitigation actions: Actions that are implemented to reduce or eliminate (mitigate) risks to persons, property, or natural resources. These actions can be undertaken before and during a wildfire. Actions before a fire include fuel treatments, vegetation modification in the home ignition zone, and structural changes to increase the chance a structure will survive a wildfire (aka, home hardening). Mitigation actions during a wildfire include mechanical and physical tasks, specific fire applications, and limited suppression actions, such as constructing firelines and creating "black lines" through the use of controlled burnouts to limit fire spread and behavior (NWCG, 2018b).

Mosaic landscape: A heterogeneous area composed of different communities or a cluster of different ecosystems that are similar in function and origin in the landscape. It consists of 'patches' arranged in a 'matrix', where the patches are the different ecosystems and the matrix is how they are arranged over the land (Hansson et al., 1995).

National Wildfire Coordinating Group (NWCG): An operational group established in 1976 through a Memorandum of Understanding between the U.S. Department of Agriculture and Department of the Interior to coordinate programs of the participating agencies to avoid wasteful duplication and to provide a means of constructively working together. NWCG provides a formalized system and agreed upon standards of training, equipment, aircraft, suppression priorities, and other operational areas. More information about NWCG is available online at https://www.nwcg.gov/.

Noncombustible building materials: Material of which no part will ignite or burn when subjected to fire or heat, even after exposure to moisture or the effects of age. Materials designated noncombustible have passed a standard test (Quarles, 2019; Quarles and Pohl, 2018).

Non-survivable road: Portions of roads adjacent to areas with predicted flame lengths greater than 8 feet under severe fire weather conditions. Potentially non-survivable flame lengths start at 8 feet according to the Haul Chart, which is a standard tool used by firefighters to relate flame lengths to tactical decisions (NWCG, 2019). Drivers stopped or trapped on these roadways would have a low chance of surviving radiant heat from fires of this intensity. Non-survivable conditions are more common along roads that are lined with thick forests, particularly with trees that have limbs all the way to the ground and/or abundant saplings and seedlings.

Overstory: Layer of foliage in a forest canopy, particularly tall mature trees that rise above the shorter immature understory trees (USFS, 2021b).

Passive crown fire: Fire that arises when surface fire ignites the crowns of trees or groups of trees (aka, torching). Torching trees reinforce the rate of spread, but passive crown fires travel along with surface fires (NWCG, 2018b).

Pile burning: Piling slash resulting from logging or fuel management activities into manageable piles that are subsequently burned during safe and approved burning conditions (NWCG, 2018b).

Radiation: A method of heat transfer by short-wavelength energy through air (aka, infrared radiation). Surfaces that absorb radiant heat warm up and radiate additional short-wavelength energy themselves. Radiant heat is what you feel when sitting in front of a fireplace. Radiant heat preheats and dries fuels adjacent to the fire, which initiates combustion by lowering the fuel's ignition temperature. The amount of radiant heat received by fuels increases as the fire front approaches. Radiant heat is a major concern for the safety of wildland firefighters and can ignite homes without direct flame contact.

Rate of spread: The relative activity of a fire in extending its horizontal dimensions. It is expressed as rate of increase of the total perimeter of the fire, as rate of forward spread of the fire front, or as rate of increase in area, depending on the intended use of the information. Rate of spread is usually expressed in chains or acres per hour for a specific period in the fire's history (NWCG, 2018b).

Ravine: Topographic features created by streams cutting into unconsolidated materials and that are narrow, steep-sided, and commonly V-shaped. Ravines are steeper than draws (NRCS, 2017).

Risk: (1) The chance of fires starting as determined by the presence and activity of causative agents (e.g., lightning), (2) a chance of suffering harm or loss, or (3) a causative agent (NWCG, 2018b).

Roadside fuel treatment: A natural or manmade change in fuel characteristics along a roadway which affects fire behavior so that fires burning into them can be more readily controlled, survivable conditions with shorter flame lengths are more likely during a wildfire, and firefighter access is enhanced (NWCG, 2018b).

Saddle: A low point on a ridge or interfluve, generally a divide or pass between the heads of streams flowing in opposite directions. The presence of a saddle funnels airflow and increases windspeed, thereby exacerbating fire behavior (NRCS, 2017).

Safety zones: An area cleared of flammable materials used by firefighters for escape in the event the line is outflanked or spot fires outside the control line render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand, allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuelbreaks; they are greatly enlarged areas which can be used with relative safety by firefighters without the use of a fire shelter (NWCG, 2018b).

Shaded fuelbreak: Fuel treatments in timbered areas where the trees on the break are thinned and pruned to reduce fire potential yet enough trees are retained to make a less favorable microclimate for surface fires (NWCG, 2018b).

Slash: Debris resulting from natural events such as wind, fire, or snow breakage or from human activities such as road construction, logging, pruning, thinning, or brush cutting. Slash includes logs, bark, branches, stumps, treetops, and broken understory trees or brush (NWCG, 2018b).

Smoldering combustion: The combined processes of dehydration, pyrolysis, solid oxidation, and scattered flaming combustion and glowing combustion, which occur after the flaming combustion phase of a fire; often characterized by large amounts of smoke consisting mainly of tars (NWCG, 2018b).

Spot fire: Fire ignited outside the perimeter of the main fire by an ember (NWCG, 2018b). Spot fires are particularly concerning because they can form a new flaming front, move in unanticipated directions, trap firefighters between two fires, and require additional firefighting resources to control.

Spotting: Behavior of a fire producing sparks or embers that are carried by the wind and start new fires beyond the zone of direct ignition by the main fire (NWCG, 2018b).

Stand: An area of forest that possesses sufficient uniformity in species composition, age, size, structural configuration, and spatial arrangement to be distinguishable from adjacent areas (USFS, 2021b).

Structure protection: The protection of homes or other structures from an active wildland fire (NWCG, 2018b).

Structure triage: The process of inspecting and classifying structures according to their defensibility or non-defensibility, based on fire behavior, location, construction, and adjacent fuels. Structure triage involves a rapid assessment of a dwelling and its immediate surroundings to determine its potential to escape damage by an approaching wildland fire. Triage factors include the fuels and vegetation in the yard and adjacent to the structure, roof environment, decking and siding materials, prevailing winds, topography, etc. (NWCG, 2018b).

There are four categories used during structure triage: (1) defensible – prep and hold, (2) defensible – stand alone, (3) non-defensible – prep and leave, and (4) non-defensible – rescue drive-by. The most important feature differentiating defensible and non-defensible structures is the presence of an adequate safety zone for firefighters (NWCG 2018a). Firefighters conduct structure triage and identify defensible homes during wildfire incidents. Categorization of homes are not pre-determined; triage decisions depend on fire behavior and wind speed due to their influence on the size of safety zones needed to keep firefighters safe.

Suppression: The work and activity used to extinguish or limit wildland fire spread (NWCG, 2018b).

Surface fire: Fire that burns fuels on the ground, which include dead branches, leaves, and low vegetation (NWCG, 2018b).

Surface fuels: Fuels lying on or near the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants (NWCG, 2018b).

Torching: The burning of the foliage of a single tree or a small group of trees from the bottom up. Torching is the type of fire behavior that occurs during passive crown fires and can initiate active crown fires if tree canopies are close to each other (NWCG, 2018b).

Values at risk: Aspects of a community or natural area considered valuable by an individual or community that could be negatively impacted by a wildfire or wildfire operations. These values can vary by community and include diverse characteristics such as homes, specific structures, water supply, power grids, natural and cultural resources, community infrastructure, and other economic, environmental, and social values (NWCG, 2018b).

Watershed (aka, drainage basin or catchment): An area of land where all precipitation falling in that area drains to the same location in a creek, stream, or river. Smaller watersheds come together to create basins that drain into bays and oceans (NOAA, 2021).

Wildfire-resistant building materials: A general term used to describe a material and design feature that can reduce the vulnerability of a building to ignition from wind-blown embers or other wildfire exposures (Quarles, 2019; Quarles and Pohl, 2018).

Wildland-urban interface (WUI): Any area where the built environment meets wildfire-prone areas—places where wildland fire can move between natural vegetation and the built environment and result in negative impacts on the community (Forge, 2018). For the purpose of this CWPP, the WUI boundary is defined in **Figure 2.c.2**. Strategic wildfire mitigation across the WUI can increase the safety or residents and wildland firefighters and reduce the chances of home loss.

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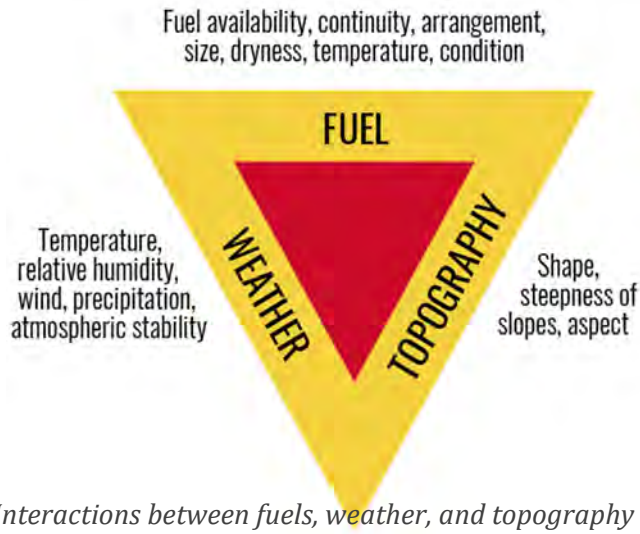
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Appendix A. Introduction to Wildfire Behavior and Terminology

Fire Behavior Triangle

Complex interactions among wildland fuels, weather, and topography determine how wildfires behave and spread. These three factors make up the sides of the fire behavior triangle, and they are the variables that wildland firefighters pay attention to when assessing potential wildfire behavior during an incident (NWCG, 2019).



Interactions between fuels, weather, and topography dictate fire behavior. Source: California State University.

Fuels

Fuels include live vegetation such as trees, shrubs, and grasses, dead vegetation like pine needles and cured grass, and materials like houses, sheds, fences, trash piles, and combustible chemicals.

Grasses and pine needles are known as "flashy" fuels because they easily combust and burn the fastest of all fuel types. If you think of a campfire, flashy fuels are the kindling that you use to start the fire. Flashy fuels dry out faster than other fuel types when relative humidity drops or when exposed to radiant and convective heat[2]. Fires in grassy fuel types can spread quickly across large areas, and fire behavior can change rapidly with changes in weather conditions.

Dead branches on the surface dry out slower than flashy fuels, release more radiant heat when they burn, and take longer to completely combust. The rate of spread is fast to moderate through shrublands depending on their moisture content, and long flame lengths can preclude direct attack by firefighters. Shrubs and small trees can also act as ladder fuels that carry fire from the ground up into the tree canopy.

Dead trees (aka, snags) and large downed logs are called "heavy fuels", and they take the longest to dry out when relative humidity drops and when exposed to radiant and convective heat. Heavy fuels release tremendous radiant heat when they burn, and they take longer to completely combust, just like a log on a campfire. Fire spread through a forest is slower than in a grassland or shrubland, but forest fires release more heat and can be extremely difficult and unsafe for firefighters to suppress. An abundance of dead trees killed by drought, insects, or disease can exacerbate fire behavior, particularly when dead trees still have dry, red needles (Moriarty et al., 2019; Parsons et al., 2014).

Topography

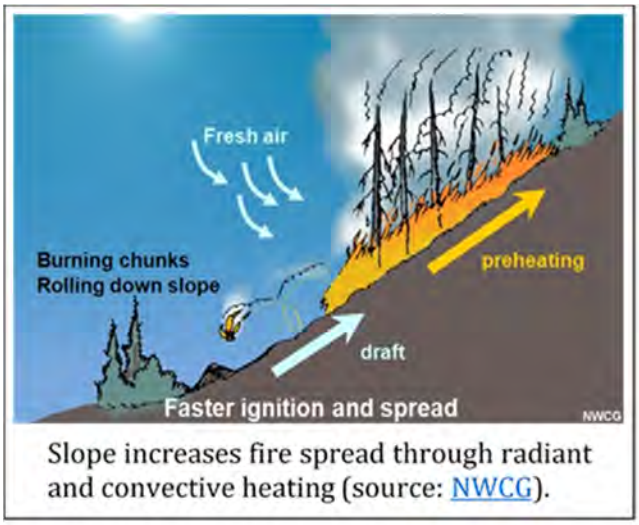
Topography (slope and aspect) influences fire intensity, speed, and spread. In the northern hemisphere, north-facing slopes experience less sun exposure during the day, resulting in higher fuel moistures. Tree density is often

[2] Radiant heat transfer occurs by short-wavelength energy traveling through air. Radiant heat is what you feel when sitting in front of a fire. Radiant heat preheats and dries fuels adjacent to a wildfire, which initiates combustion by lowering the fuel's ignition temperature. Convective heat transfer occurs when air is heated, travels away from the source, and carries heat along with it. Convective heat is what you would feel if you put your hand in the air above an open flame. Air around and above a wildfire expands as it is heated, causing it to become less dense and rise into a hot convection column. Cooler air flows in to replace the rising gases, and in some cases, this inflow of air creates local winds that further fan the flames. Hot convective gases move up slope and dry out fuels ahead of the flaming front, lowering their ignition temperature and increasing their susceptibility to ignition and fire spread.

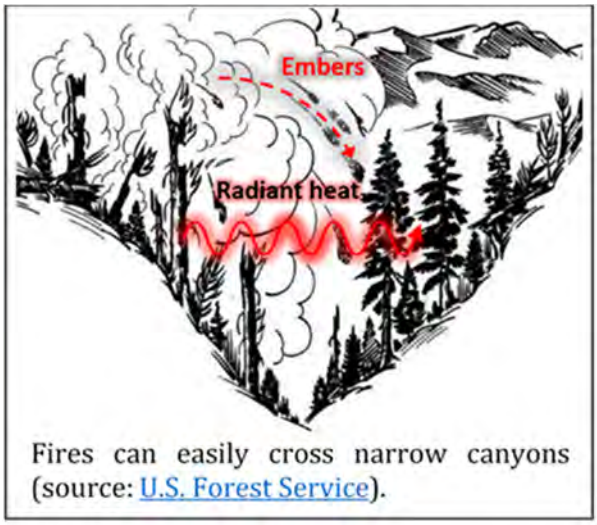
higher on north-facing slopes due to higher soil moisture. South-facing slopes experience more sun exposure and higher temperatures and are often covered in grasses and shrubs. The hotter and drier conditions on south-facing slopes mean fuels are drier and more susceptible to combustion, and the prevalence of flashy fuels results in fast rates of fire spread.

Fires burn more quickly up steep slopes due to radiant and convective heating. Fuels are brought into closer proximity with the progressing fire, causing them to dry out, preheat, and become more receptive to ignition, thereby increasing rates of spread. Steep slopes also increase the risk of burning material rolling and igniting unburnt fuels below.

Narrow canyons can experience increased combustion because radiant heat from fire burning on one side of the canyon can heat fuel on the other side of the canyon. Embers can easily travel from one side of a canyon to the other. Topography also influences wind behavior and can make fire spread unpredictable. Wildfires burning through steep and rugged topography are harder to control due to reduced access for firefighters and more unpredictable and extreme fire behavior.



Slope increases fire spread through radiant and convective heating (source: NWCG).



Fires can easily cross narrow canyons (source: U.S. Forest Service).

Steep slopes and topographic features such as narrow canyons exacerbate fire behavior.

Weather

Weather conditions that impact fire behavior include temperature, relative humidity, precipitation, and wind speed and direction. The National Weather Service uses a system called a red flag warning to indicate local weather conditions that can combine to produce increased risk of fire danger and behavior. Red flag warning days indicate increased risk of extreme fire behavior due to a combination of hot temperatures, very low humidity, dry fuels, strong winds, and the presence of thunderstorms (**Table A.1**).

Direct sunlight and hot temperatures impact how ready fuels are to ignite. Warm air preheats fuels and brings them closer to their ignition point. When relative humidity is low, the dry air can absorb moisture from fuels, especially flashy fuels, making them more susceptible to ignition. Long periods of dry weather can dehydrate heavier fuels, including downed logs, increasing the risk of wildfires in areas with heavy fuel loads.

Wind influences fire behavior by drying out fuels (think how quickly your lips dry out in windy weather), increasing the amount of oxygen feeding the fuel, preheating vegetation through convective heat, and carrying embers more than a mile ahead of an active fire. Complex topography, such as chutes, saddles, and draws, can funnel winds in unpredictable directions, increasing wind speeds and resulting in erratic fire behavior.

***Table A.1**. Red flag days are warnings issued by the National Weather Service using criteria specific to a region.*

National Weather Service – Denver/Boulder Forecast Office Red Flag Warning Criteria	
Criteria	
Relative humidity less than or equal to 15%	Widely scattered dry thunderstorms LAL 6
Wind gusts greater than or equal to 25 mph	Haines Index of 5 or 6
Dry fuels	Poor relative humidity recovery overnight (RH remains 40% or lower)

Ready, Set, Go!

GET SET: Red Flag Warning

Powered by the IAFC

What is a Red Flag Warning?





A Red Flag Warning is issued by the National Weather Service when low humidity, warm temperatures, dry fuels and strong winds could combine to produce extreme fire behavior that is either occurring or will occur within 24 hours. These are some of the criteria* considered prior to issuing a Red Flag Warning:

- Sustained wind speeds averaging 15 mph or greater
- Relative humidity of 25% or less
- Temperature over 75 degrees F
- Ten hour fuel moisture at 8% or less for one day

**specific weather criteria can vary by region*

During a Red Flag Warning you should **ALWAYS** follow the instructions provided by your local fire department and be prepared to take action if a fire develops in your area.

Red Flag Warning Safety Tips

Equipment

- Avoid using lawn mowers on dry vegetation.
- Follow all local fire restrictions on the use of chainsaws, mowers and other equipment during high risk times.

Outdoor Fires

- Be mindful of any burn bans in your area and obtain a permit if needed.
- Extinguish outdoor fires properly, never leave them unattended. Always drown them with plenty of water.
- Soak ashes and charcoal in water and dispose of them in a metal can. These materials can re-ignite days after a fire or BBQ is extinguished.
- Report unattended outdoor fires immediately to 911.

Property

- Keep your lawn green and mowed all season.
- Create at least 100 feet of defensible space around your home by removing leaves, weeds, brush, firewood and other flammables. Make sure to clean roof and gutters too.
- Make sure access roads to your property are cleared and properly labeled.

Vehicles

- Do not throw cigarettes or matches out of a vehicle. They can ignite grass on the side of the road and start a wildfire.
- Do not pull your vehicle over in dry grass.
- Ensure that trailer chains don't drag on the ground.

Set — **Always Maintain Situational Awareness**

Watch weather reports and make sure you are signed up for state and local emergency alerts.

During a warning, your local fire department can:

- Send text alerts, post information on social media and notify media outlets.
- Suspend open burning.
- Increase staffing and patrol highly vulnerable areas.
- Staff reserve equipment.
- Discuss allied resources with community stakeholders.
- Change fire threat signs to extreme.

For more information, **contact your local fire department.**

The Ready, Set, Go! Program seeks to share information with residents on what they can do to successfully prepare for a wildland fire. Residents are encouraged to be "Ready" by taking personal responsibility for their themselves, their family and their property, to be "Set" with situational awareness and to "Go" and act early. Speak with your local fire department about your area's threat for wildland fire and learn more about the wildland urban interface (WUI).

Ready, Set, Go! Wildland Fire Action Plan

Ready (Before the warning occurs)

- Create at least 100 feet of defensible space around your home. Clear flammable vegetation by trimming trees and removing pine needles and leaves from roofs, eaves and gutters. Box in vents with 1/8th inch metal mesh to block embers.
- Complete and practice your Personal Wildland Fire Action Plan.
- Become familiar with area roads, including all exit routes from your immediate area.
- Make a plan to accommodate animals or pets in case of wildfire or evacuation.
- Sign up with local agencies to receive emergency notifications.

Set (During the warning)

- Maintain good situational awareness by following weather reports and the news from your local media outlets.
- Have your "Go" kit packed and near your door in case you need to evacuate quickly. Suggested items to pack include:
  - Your Personal Wildland Fire Action Plan.
  - Prescription medications and any medical devices you may need.
  - Emergency first-aid supplies.
  - Important documents including your passport, birth certificate, driver's license, marriage license, insurance policy and any other legal documents.
  - Pet medications.
  - Personal electronics including cell phone, laptops and any charging cables you may need.
  - A week's worth of clothing and two pairs of shoes.
- Make sure your car is fueled and parked right outside your house so you can leave quickly.

Go! (Act early when a wildfire threatens)

- Get your '"Go" kit and leave well before the threat approaches, following an accessible exit route.
- Use your personal action plan for guidance.
- Cooperate with local authorities during evacuation & re-entry processes.

Remember: An evacuation can occur anytime, day or night.
Be prepared you can evacuate quickly and safely.

www.wildlandfirersg.org

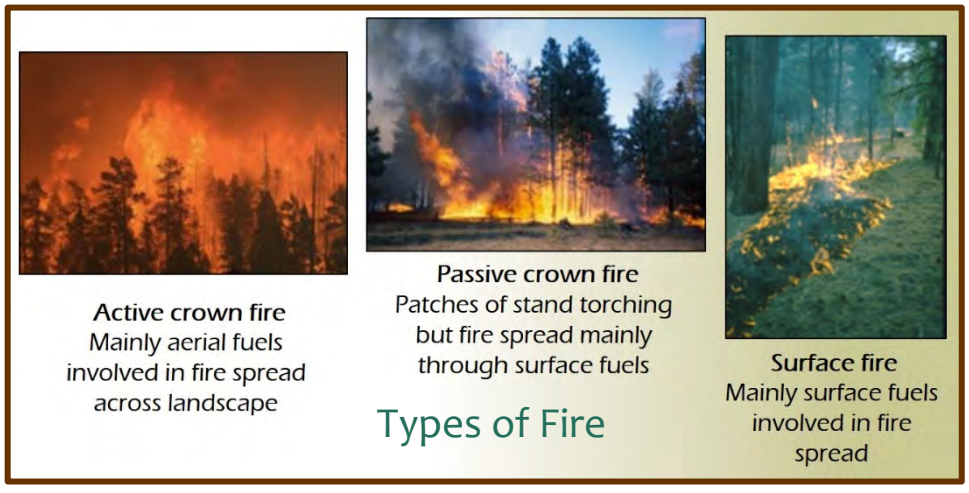
IAFC's Wildland Fire Programs are funded in cooperation with the USDA Forest Service. In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs). To file a complaint alleging discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington DC 20250-9410 or call toll free voice (866) 632-9992, TDD (800) 877-8339, or voice relay (866) 377-8642. USDA is an equal opportunity provider and employer.

Categories of Fire Behavior

Weather, topography, and fuels influence fire behavior, and fire behavior in turn influences the tactical options available for wildland firefighters and the risks posed to lives and property. There are three general categories of fire behavior described throughout this CWPP: surface fire, passive crown fire, and active crown fire.

- **Surface fire –** Fire that burns fuels on the ground, which include dead branches, leaves, and low vegetation. Surface fires can be addressed with direct attack using handcrews when flame lengths are less than four feet and with equipment when flame lengths are less than eight feet. Surface fires can emit significant radiant heat, which can ignite nearby vegetation and homes.
- **Passive crown fire –** Fire that arises when surface fire ignites the crowns of trees or groups of trees (aka, torching). Torching trees reinforce the rate of spread, but passive crown fires travel along with surface fires. Firefighters can sometimes address passive crown fires with indirect attack, such as dropping water or retardant out of aircraft or digging fireline at a safe distance from the flaming front. The likelihood of passive crown fire increases when trees have low limbs and when smaller trees and shrubs grow below tall trees and act as ladder fuels. Radiant heat and ember production from passive crown fires can threaten homes during wildfires.
- **Active crown fire –** Fire in which a solid flame develops in the crowns of trees and advances from tree crown to tree crown independently of surface fire spread. Crown fires are very difficult to contain, even with the use of aircraft dropping fire retardant, due to long flame lengths and tremendous release of radiant energy. The likelihood of active crown fires increases when trees have interlocking canopies. Radiant heat and ember production from active crown fires can threaten homes during wildfires.

Passive and active crown fires can result in short- and long-range ember production that can create spot fires and ignite homes. Spot fires are particularly concerning because they can form a new flaming front, move in unanticipated directions, trap firefighters between two fires, and require additional firefighting resources to control. Crown fires are generally undesirable in the wildland-urban interface (WUI) because of the risk to lives and property; however, passive and active crown fires are part of the natural fire regime for some forest types and result in habitat for plant and animal species that require recently disturbed conditions (Keane et al., 2008; Pausas and Parr, 2018). Passive and active crown fires historically occurred in some lodgepole pine forests and higher-elevation ponderosa pine and mixed-conifer forests on north-facing slopes (Addington et al., 2018; Romme, 1982).



Wildfire Threats to Homes

Wildfires can ignite homes through radiant heat, convective heat, and direct contact with flames or embers. The ability for radiant heat to ignite a home is based on the properties of the structure (i.e., wood, metal, or brick siding), the temperature of the flame, the ambient air temperature, and the distance from the flame (Caton et al., 2016). Ignition from convective heat is more likely for homes built along steep slopes and in ravines and draws. To ignite a structure, flames must directly contact the building long enough to cause ignition. Flames from a stack of firewood near a home could cause ignition, but flames that quickly burn through grassy fuels are less likely to ignite the home (although the potential still exists). Fires can also travel between structures along fuel pathways, such as a fence or row of shrubs connecting a shed and a home (Maranghides et al., 2022). Some housing materials can burn hotter than the surrounding vegetation, thereby exacerbating wildfire intensity and initiating home-to-home ignition (Mell et al., 2010).



Homes built mid-slope and at the top of steep slopes and within ravines and draws are at greater risk of convective heat from wildfires. A wildfire could rapidly spread up this steep slope and threaten the home above. Photo credit: The Ember Alliance

Homes can be destroyed during wildfires even if surrounding vegetation has not burned. During many wildland fires, 50 to 90% of homes ignite due to embers rather than radiant heat or direct flame (Babrauskas, 2018; Gropp, 2019). Embers can ignite structures when they land on roofs, enter homes through exposed eaves, or get under wooden decks. Embers can ignite nearby vegetation and other combustible fuels, subsequently igniting a home via radiant heating or direct flame contact. Burning homes can release embers that land on and ignite nearby structures, causing destructive home-to-home ignitions, as evidenced by the destructive 2021 Marshall Fire in Boulder County. Structural characteristics of a home can increase its exposure to embers and risk of combustion, such as wood shingle roofs and unenclosed eaves and vents (Hakes et al., 2017; Syphard and Keeley, 2019). Embers can also penetrate homes if windows are destroyed by radiant or convective heat. See your community's CWPP for specific recommendations on how to harden your home against wildfires.

Resources for More Information on Fire Behavior

- Introduction to Fire Behavior from the National Wildfire Coordinating Group (9:57 minute video)
- The Fire Triangle from the National Wildfire Coordinating Group (7:26 minute video)
- Understanding Fire Behavior in the Wildland/Urban Interface from the National Fire Protection Association (20:51 minute video)
- Understanding Fire from California State University (website)
- S-190 Introduction to Wildland Fire Behavior Course Materials from the NWCG (PowerPoints, handouts, and videos)

Appendix B. Community Risk Assessment Methodology

WUI Delineation

Delineating the wildland-urban interface is a critical component of CWPPs in compliance with the Healthy Forest Restoration Act (HFRA) of 2003. Communities can extend the WUI boundary into adjacent areas that pose a wildfire threat to their community, can serve as a strategic location for wildland firefighting, and are adjacent to evacuation routes for the community (HFRA 4 U.S.C. §101.16). Strategic wildfire mitigation across the WUI can increase the safety or residents and wildland firefighters and reduce the chances of home loss.

Colorado is one of the fastest-growing states in the Nation, with much of this growth occurring outside urban boundaries. This increase in population across the state will impact counties and communities located within the Wildland Urban Interface (WUI). The WUI is the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels.

Population growth within the WUI substantially increases the risk of wildfire. The Wildland Urban Interface (WUI) layer reflects housing density, depicting where humans and their structures meet or intermix with wildland fuels. In the past, conventional wildland-urban interface data sets, such as USFS SILVIS, have been used to reflect these concerns. However, USFS SILVIS and other existing data sources did not provide the level of detail needed by the Colorado State Forest Service and local fire protection agencies, particularly reflecting encroachment into urban core areas. The new WUI data set is derived using advanced modeling techniques based on the Where People Live (housing density) data set and 2021 LandScan USA population count data available from the Department of Homeland Security, HSIP data. WUI is simply a subset of the Where People Live data set. The primary difference is that populated areas surrounded by sufficient non-burnable areas (i.e., interior urban areas) are removed from the Where People Live data set, as these areas are not expected to be directly impacted by a wildfire. Fringe urban areas, i.e., those on the edge of urban areas directly adjacent to burnable fuels, are included in the WUI. Advanced encroachment algorithms were used to define these fringe areas.

Data is modeled at a 20-meter grid cell resolution consistent with other CO- WRA layers. The WUI classes are based on the number of houses per acre. Class breaks are based on densities, are well understood, and are commonly used for fire protection planning.

Fire Behavior

The information in the 2022 Colorado Forest Atlas, along with information from the RMA Dash Board, was used to develop risk profiles for each of the plan units and the county as a whole. This information regarding fuel types and concentration was verified through field assessments in each of the units. The prior fire history and behavior were incorporated into the final risk assessments. While each plan unit has the potential to support extreme fire behavior when the environmental conditions, fuels, and topography align, the average expected fire behavior was used to determine the risk levels.

Evacuation

The road conditions, road type, and number of access roads were considered in determining the evacuation difficulty for each plan unit. The total number of residents and the expected number of visitors to the area were also included in evacuation planning.

Roadway Survivability

The topography, fuel adjacent to the roadway, and expected average fire behavior were considered when determining roadway survivability. Roads that would have slowed or stopped traffic during an evacuation and had high fuel loading adjacent to the road surface were classified as nonsurvivable.

Risk Assessment

CWPP Plan Units

The district was divided into nine plan units incorporating all the major drainages structures. The plan unit delineations were made for areas with access changes, fuel type changes, alignment with wind changes, or unique hazard areas.

On the Ground Hazard Assessments

Clear Creek Fire Authority personnel completed the on-the-ground assessments. The risk profiles, fuel types, and fuel concentrations were compared to the on-the-ground conditions. The NFPA Wildland Fire Risk and Hazard Severity Assessment Form was used to evaluate each plan unit.

Risk Rating Approach

The relative risk levels were determined using the type of fire within the unit and the likelihood of a fire occurring. The WUI concentration, evacuation difficulty, and location of homes relative to the drainages were considered for all units.

Fuel Treatment Prioritization

Roadside Fuel Treatments

Most county roads within the district have fuels directly adjacent to the road surface, which is compounded by the steep topography adjacent to the road surface. Roadside fuel treatments are recommended for all county and private roads in the district.

Stand-Scale Fuel Treatments

The suggested stand-level fuel treatments were developed as part of the USFS POD line development project. They are based on previous fires crossing from the west side of the continental divide to receptive fuels on the east side of the continental divide. These fires could have fuel, topography, and wind alignment on the east side of the divide and spread to the front range or Denver metro area.

Appendix C. Community Survey Methodology and Results

Clear Creek Fire Authority CWPP Resident Questionnaire

2024 update to our Community Wildfire Protection Plan

Clear Creek Fire Authority is embarking on an update of the 2008 Community Wildfire Protection Plan (CWPP). We will use up-to-date information and fire modeling to assess local hazards and identify strategic investments to mitigate risk and promote preparedness. An updated CWPP will improve the ability of the FPD to respond to wildfires and direct emergency operations, including evacuations.

Community engagement in CWPP development

Community engagement is a vital aspect of CWPP development and implementation. Please take this online questionnaire to share your insights and help us learn about your values, needs, and concerns related to wildfire risk and community preparedness.

The questionnaire is only intended for residents within the Clear Creek Fire Authority Fire Protection District and individuals who own businesses in the area. The map below shows the boundary of the Fire Protection District. The questionnaire will take about 20 minutes to complete. Questions developed by the Wildfire Research group (WiRē; https://wildfireresearchcenter.org/) were instrumental in conducting the survey. We welcome all adults in your household / business to complete the survey. Your answers will be kept confidential, and insights we gather from your responses will be aggregated and not identifiable to a single individual.

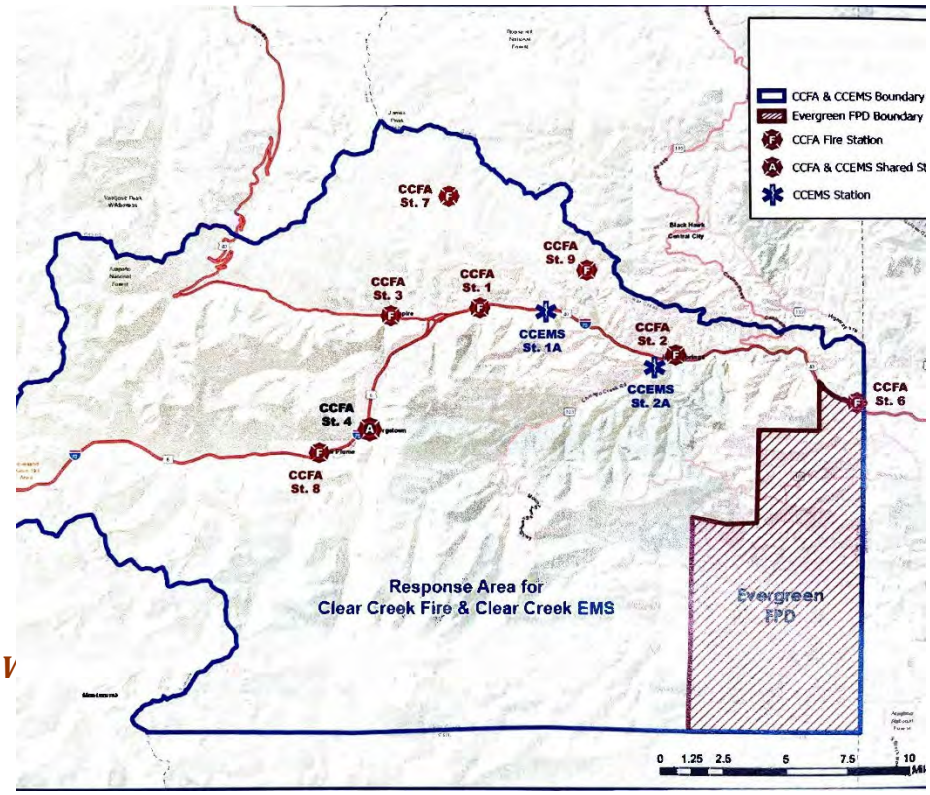
Please contact Jeremy Jones at jjones@clearcreekfire.com with questions and concerns regarding this questionnaire.

Please scan and email your completed questionnaire to jjones@clearcreekfire.com or mail / drop off at the office:

681 CR 308

PO Box 507

Dumont, CO 80436



Thank you for your time! V

8. Section 1: About you and your home/property/business

1. In what part of the community/Fire Protection District do you live or own a business in? Check all that apply.

- O Chicago Creek Unit
- O Dumont-Lawson Unit
- O Empire-Berthoud Falls Unit
- O Floyd Hill Unit
- O Georgetown Unit
- O Idaho Springs Unit
- O Mill Creek-Fall River Unit
- O Soda Creek-Blue Valley Unit
- O Home in another area: _____
- O Business in the Georgetown area
- O Business in the Idaho Springs area
- O Business in the Empire area
- O Business in another area: _____

2. Do you rent or own the place where you live / operate your business in the community/Fire Protection District? Check all that apply.

- O I rent the place I live in
- O I own the place I live in
- O I rent my business location
- O I own my business location(s)

3. How would you describe your residence or business in community/Fire Protection District?

- O Single-family home
- O Multi-family dwelling (e.g., townhouse, condo)
- O Standalone business structure
- O Multi-business structure
- O Other: _____

4. What is your residency status in the community/Fire Protection District? Check all that apply.

- O Full time resident
- O Seasonal resident
- O Non-resident
- O Short-term rental owner
- O Long-term rental owner
- O Owner of undeveloped lots
- O Business owner
- O Other: _____

5. How long have you lived in or owned a business in the community/Fire Protection District?

- O Less than 2 years
- O More than 2 years to less than 5 years
- O More than 5 years to less than 10 years
- O More than 10 years

If you would like to receive email notifications regarding updates and events related to the Community Wildfire Protection Plan, please provide your email address:

9. Section 2: Wildfire knowledge and concerns

6. Please read each statement and select the degree to which you agree or disagree with it.

	Strongly agree	Agree	Disagree	Strongly disagree
I understand the degree to which our community is at risk from wildfires.				
I know steps I can take to reduce wildfire hazards on and around my home / business / property.				
I would consider cutting trees for wildland fire protection on my own property.				
I support cutting of trees for wildland fire protection on open spaces across the community.				
I support cutting of trees along roads to enhance the safety of roads in case of an evacuation.				
I support land managers such as the U.S. Forest Service cutting trees to mitigate wildfire risk on public land around the community/FPD.				
I support pile burning to eliminate woody material created by fire mitigation actions.				
I support prescribed (controlled) burning to reduce wildfire risk in open spaces around or adjacent to the community.				

7. How concerned are you about the following issues if a wildfire were to occur in this community?

	Not concerned	Only slightly concerned	Moderately concerned	Very concerned
Receiving timely and accurate information about the incident				
Evacuating safely and promptly				
Damage to my home / business / property				
Loss of life				
Impacts to my livelihood				
Damage to wildlife habitat				
Loss of recreational opportunities				
Decreased beauty of my property and open spaces across the community				
Loss of insurance coverage due to wildfire risk				
Reduced air quality due to smoke				
Post-fire erosion and flooding				

8. Do you have any additional concerns in the case that a wildfire were to occur in the Clear Creek Fire Protection Authority District?

10. Section 3: Reducing wildfire hazards

9. I have completed the following work to my home/business/property to lessen the risk of wildfire and prepare for potential evacuations: Check all that apply.

- O Cutting trees or removing low limbs on trees near my home/business
- O Annually removing debris (dead vegetation, pine needles) from my gutter and roof
- O Annually removing debris (dead vegetation, pine needles, mulch) from under my balcony, deck, or porch
- O Removing all burnable fuel (mulch, grass, flammable furniture) from within 5 ft around the base of my home
- O Moving firewood away from my home/business and not storing it under my balcony, deck, or porch
- O Repairing or installing screens to block embers from entering vents, eaves, gutters, or crawlspace
- O Replacing my roof with less flammable materials
- O Widening my driveway so fire engines could access my property
- O Signing up for [local emergency alerts] to receive emergency notifications during wildfire incidents
- O Creating an evacuation plan for my family, pets, and livestock.
- O Keeping a Go Bag with important documents, survival gear, medications, etc. at the ready in case of an evacuation
- O Other:

10. Which of the following factors keep you from undertaking actions to reduce the wildfire risk on your property? Check all that apply.

- O Lack of knowledge about effective methods to reduce hazards
- O Lack of financial resources
- O Lack of tools to complete the work
- O Lack of time to complete the work
- O Physical inability to complete the work
- O Limited means to dispose of downed trees, limbs, and other slash material
- O Desire to keep trees near homes/businesses for aesthetic reasons, shading, or privacy
- O Local ordinances and regulations that prohibit certain modifications to homes/ businesses and surrounding property
- O Other:

11. Which of the following would encourage and enable you to reduce the wildfire risk on your property? Check all that apply.

- O Financial assistance
- O Access to inexpensive/easy means of disposing vegetation from mitigation work
- O Specific information about what needs to be done
- O Information on the effectiveness of different strategies to reduce the wildfire risk

- O Help doing the work (e.g., someone to thin trees and vegetation and/or remove debris)
- O A list of recommended contractors that could be hired to do the work
- O None of the above--I am not interested in these actions
- O Other:

12. Does your family have an evacuation plan for if a wildfire were to occur in the community?

- O Yes, for people in my household
- O Yes, for people and pets in my household
- O Yes, for people, pets, and livestock in my household and on my property
- O No

13. If there were an evacuation in the community because of wildfire, how concerned are you about the following issues?

	Not concerned	**Only slightly concerned**	**Moderately concerned**	**Very concerned**
I or my family members have physical limitations that would make it difficult for us to evacuate promptly				
My neighbors have physical limitations that would make it difficult for them to evacuate promptly				
I have children that might be home alone when an evacuation occurs				
My neighbors have children that might be home alone when an evacuation occurs				
My community does not have enough roads to handle evacuation traffic				
I do not know where to go if asked to evacuate				
I might not receive timely information about the need to evacuation				
It would take me over 20 minutes to gather my personal belongings and pets to evacuate				

11. Section 4: Education and Resources

14. If you have received information about wildfire issues facing this area, who has provided this information to you? Check all that apply.

- O Local State Forest Service
- O local Conservation District
- O Your HOA/POA
- O local Fire Protection District
- O local Watershed Coalition
- O Your insurance agency
- O Your neighbors
- O Social club or community organization: _____
- O I have never received information about wildfire issues in this area
- O Other: _____

15. What methods are best to communicate with you? Check all that apply.

- O Email
- O Paper mail
- O Flyers and ads in and around town
- O Facebook/social media
- O Newspapers
- O Next Door
- O Other:

16. Do you have any other thoughts or concerns relating to wildfire hazards and community preparedness?

"What actions have you taken on your property to protect your home from wildfire?" and have a graph with all the responses. Feel free to add quotes in for people that responded with additional information. Also use and reference these graphs throughout the document to support statements of community feelings or needs]

Appendix D. Community Wildfire Incident Functional Exercise

2024

Clear Creek Fire Authority Wildfire Tabletop Exercise

After Action Report

EXERCISE DATE: MARCH 5, 2024

CRAIG DAUGHERTY- FACILITATOR- FIRE.EDGE.CD@GMAIL.COM

INTERNATIONAL ASSSOCIATION OF FIRE CHIEFS: COMMUNITY WILDFIRE PROTECTION PLAN (CWPP) ASSISTANCE PROGRAM

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Appendix A: Participant Feedback Summary

Appendix B: Exercise Situation Manual

13. Executive Summary

On March 5, 2024, the International Association of Fire Chiefs (IAFC) Community Wildfire Protection Plan (CWPP) Program, in partnership with Clear Creek Fire Authority, held a discussion-based tabletop exercise to prepare for a large-scale wildland fire incident that would impact multiple communities in Clear Creek County, Colorado. The tabletop exercise was designed to assist the Clear Creek Fire Authority in the rewrite of their CWPP. The CWPP in turn will assist the community in preparation for wildfire events occurring within the county. The exercise was funded through an FY2021 Department of Homeland Security/Federal Emergency Management Agency/Assistance to Firefighters Grant/Fire Prevention and Safety Grant (DHS/FEMA/AFG/FPS) that was awarded to the IAFC. The exercise design team was composed of IAFC staff and contractors.

Clear Creek Fire Authority was selected as one of six departments to receive CWPP Program assistance through the FEMA grant and was selected for additional support through a tabletop exercise. Initial planning for the exercise began in July ‘23 after a preliminary discussion with local stakeholders.

The exercise design team created a wildland fire scenario under Red Flag conditions. The initial wildland fire began along Highway 40 two miles West of the community of Empire and eventually burned toward the communities of Saint Mary’s and Upper Mill Creek. A second fire was then introduced South of Idaho Springs and eventually would threaten critical infrastructure. The exercise took participants through a progression of fire growth into multiple communities and various fire and law enforcement jurisdictions, eventually involving multiple structures and other critical values at risk. The scenario was developed in accordance with the goals and objectives outlined by the IAFC and locally involved stakeholders.

Goal: To work together as emergency response agencies and partners, dealing with a catastrophic wildland fire scenario impacting communities. Identify the roles and responsibilities of each agency that will ultimately lead to better preparation and preparedness for a real-world event.

Objectives:

- Gather emergency responders together for a tabletop exercise involving a rapidly evolving wildland incident.
- Evaluate agency roles and responsibilities in a catastrophic wildland fire scenario impacting the community and how each agency will collaborate with other organizations.
- Define and understand each agency’s role in the incident and how they fit within the organization of incident command or the Emergency Operations Center.
- Identify blind spots that need to be addressed to be successful with future events.
- Document key outcomes and follow-up actions of the tabletop.

After Action Report/Recommendations for Wildfire Planning

The purpose of this report is to provide an overview of the tabletop exercise, summarize and analyze exercise findings, identify strengths that should be maintained and built upon, identify areas for further improvement, and support the development of recommendations.

After reviewing written participant feedback gathered at the conclusion of the tabletop exercise, much of the group thought the tabletop exercise was beneficial. The majority of participants indicated that they strongly agreed or agreed with the assessment factors listed below.

- The exercise was well structured and organized.
- The exercise scenario was plausible and realistic.
- The multimedia presentation helped the participants understand and become engaged in the scenario.
- The facilitator was knowledgeable about the material, kept the exercise on target, and was sensitive to group dynamics.
- The PPT Scenario used during the exercise was a valuable tool throughout the exercise.
- Participation in this exercise was appropriate for someone in my position.
- The participants included the right people in terms of level and mix of disciplines.
- The exercise provided a good test of knowledge/skills.

For more details, see Appendix A.

The participating organizations will use this report moving forward with recommendations from the exercise and work collaboratively to create a framework for their CWPP planning.

Major Strengths

A major strength observed throughout the exercise was the foundation already established for relationships across the emergency services agencies in the area. Participants had working relationships and ongoing collaboration with each other and there was a solid foundation of networking and partnerships which was obvious.

Additionally, previous regional incidents such as the Marshall and East Troublesome Fires along with recent national wildfires created a point of reference to draw upon strengths and lessons learned across agencies and lead to a strong understanding of the potential of a WUI fire in this area. This helped many participants reference these previous incidents and bring reality to the scenario which led to stronger and more in-depth conversations.

Primary Areas for Improvement

Throughout the exercise, opportunities for improvement in Clear Creek County's ability to coordinate evacuation and response to an emerging WUI fire were identified. The focus areas of improvement fell into several categories:

1) Collaboration/Partnerships

2) Planning

3) Communications

4) Training

1) Collaboration/Partnerships

While the greater Clear Creek County area already has strong working partnerships, a greater understanding of the abilities of Jeffcom 911 Dispatch was discussed since

they are new to providing these services to Clear Creek County. More engagement with private/other sectors (schools, assisted living facilities, private rafting companies, utility providers, large animal rescue organizations, Red Cross, etc.) on resources and collaboration during times of crises, were recognized as areas for improvement. Also, the integration of Mutual Aid partners and state and Federal Resources was recognized as an area where more collaboration is important.
Future tabletop exercises with additional organizations included were suggested to build upon the momentum established through this exercise.

2) Planning

Discussions during the exercise identified several areas requiring additional planning across organizations. Several of these areas were planning for the Emergency Operations Center (EOC), Joint Information Center (JIC), evacuation zones, and management action points, as well as evacuation notifications and processes.
Evacuation language needs to be established and publicized within the County and a strong PIO group needs to be built so information is not slow to be released. More training in the EOC and Incident Command interface was discussed as a need for future training and planning.

3) Communications

To improve communications, both in terms of technology capabilities and processes, the participants discussed priority pre-emption, radio frequencies (the use of 800 MHz vs. VHF) interoperability or lack thereof between systems, and emergency alert notifications. While there are established communication abilities for internal and external communications, both need increased awareness for agency representatives and the public. There were discussions of the capabilities of Jeffcom dispatch that need further follow-up on their abilities with staffing to deal with this situation and how their processes work on evacuation warnings both through the Rave System and utilizing IPAWS for emergency notifications of the public.

4) Training

Several areas of training were identified as valuable for increasing preparedness for wildfire, including training focused on Incident Command System (ICS) specifically for elected officials, and basic fire behavior and ICS for non-emergency response agencies. Personal Protective Equipment (PPE) for non-fire responders should also be considered along with chainsaw training for all personnel.

14. Section 1: Exercise Overview

Exercise Details

Exercise Name: Clear Creek Fire Authority Wildfire Tabletop Exercise

Type of Exercise: Discussion-based tabletop exercise of a wildland fire requiring the implementation of community protection, partner collaboration, and coordination.

Exercise Date and Time: March 5th from 8:30 a.m. to 2:00 p.m.

Location: Clear Creek Fire Authority training room.

Goal: To work together as emergency response agencies and partners, dealing with a catastrophic wildland fire scenario impacting communities. Identify the roles and responsibilities of each agency that will ultimately lead to better preparation and preparedness for a real-world event.

Objectives:

- Gather emergency responders together for a tabletop exercise involving a rapidly evolving wildland incident.
- Evaluate agency roles and responsibilities in a catastrophic wildland fire scenario impacting the community and how each agency will collaborate with other organizations.
- Define and understand each agency's role in the incident and how they fit within the organization of incident command or the Emergency Operations Center.
- Identify blind spots that need to be addressed in order to be successful with future events.
- Document key outcomes and follow-up actions of the tabletop.

Capabilities: Target capabilities addressed within the exercise include:

- Interagency wildfire response and suppression
- Communications
- Evacuation

Exercise Design Team and Support

From the IAFC

- Craig Daugherty (Facilitator and scenario development)
- Marshall Braun (ArcGIS support and StoryMap creation)
- Lauren Holtzclaw (Wildland Programs Analyst-IAFC – support)
- Derek Bullington (Program Manager-IAFC – support)

Participating Organizations

Listed below are the organizations and agencies that participated in the Clear Creek Fire Authority Wildfire Tabletop Exercise:

- Clear Creek Fire Authority
- Clear Creek County Sheriff's Office
- Clear Creek County Office of Emergency Management
- Clear Creek County
- Central City Fire Department
- Evergreen Fire Department
- US Forest Service
- Colorado Department of Fire Prevention and Control
- Colorado State Forest Service
- Idaho Springs Police Department
- Gilpin County Sheriff's Office
- Empire Police Department
- Colorado Department of Transportation
- Clear Creek County EMS
- City of Georgetown
- Clear Creek Courant Reporter

A total of 30 people were in attendance for the tabletop. All participants and organizations were actively involved in the conversations and brought value to the exercise and the problem-solving that occurred.

15. Section 2: Exercise Design Summary

Exercise Structure and Guidelines

The TTX was a multimedia, facilitated exercise. Each module began with a multimedia update that summarizes key events occurring within that time. After the update, the facilitator engaged the various functional response agencies on their appropriate response issues, actions, concerns, and partners with whom they will collaborate. Dialog with all the represented organizations occurred to determine assistance that could be provided to a specific situation and how an interagency approach can best be accomplished.

Guidelines:

- The TTX will be held in an open, high-energy, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Respond based on your knowledge of current plans and capabilities (utilize only your existing assets) and insights derived from your experience and training.
- Decisions are not precedent-setting and may not reflect your organization's final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions. **Do what's right!**
- Issue identification is not as valuable as suggestions and recommended actions that could improve response and preparedness efforts. Critical thinking and problem-solving should be the focus.

Scenario Summary

This tabletop exercise used a major wildland fire event as the scenario to set the stage for both wildland fire response, coordination, and evacuation discussions. The agenda for the exercise included multiple discussion sets that incorporated scenarios within the fire staged at different points in time. The timeline for the scenarios starts with the initial attack and progresses with fire growth and then a second wildfire occurring within the county. All events, discussion sets, and questions asked can be found in the full Situation Manual found in Appendix B.

Members of the exercise design team recorded observations, issues, concerns, ideas, and recommendations expressed by participants during the discussions.

16. Section 3: Analysis of Capabilities

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by category and the corresponding activities.

Partnerships

Participating organizations recognized early in the tabletop the importance of establishing unified command and an EOC for the incident. This echoed throughout the tabletop and a strong level of cooperation among agencies was evident. Public information was a reflective topic, and one area of improvement was identified. The county has a PIO, and a discussion was held on the possibility of organizing a Public Information Officers working group, this could streamline the Joint Information Center (JIC) portion of the EOC during an incident and give capacity to all agencies in a situation such as this scenario. Discussions were also held about the need for more cross-agency communication and training, to ensure that unified command can be set up quickly at the onset of an incident. Interoperability between 800 MHz and VHF frequencies was highlighted as a concern during the exercise, and it was noted that more training needs to occur to integrate these two systems and become more streamlined in communications for all types of incidents and to train new folks and stay up on the system operations.

More involvement of private sector resources in the EOC and during the response was noted as another potential gap. Conversations with utility providers, rafting companies, and review of master plans for updating contacts, maps, and processes need to occur more frequently especially after the Dispatch has moved to Jeffcom. It was noted that there was a notebook with a lot of this information, that was previously at the old dispatch and the whereabouts of this information is unknown after the move to Jeffcom.

Future tabletops were identified as a need, these exercises would need to include some of the agencies such as the State Patrol who were not in attendance and there was a suggestion to bring in mutual aid partners as well. Smaller tabletops, including the public, were also discussed as educational as well as functional tools.

Preplanning

Preplanning has occurred in some functional areas, but most of the information is held within the individual response or functional organizations. Discussions were held about establishing management action points along with clarifying evacuation zones, to assist decisions during wildfire evacuation situations and to bring partners together in a non-stressful environment to determine the best course of action for various situations. Again, discussions need to occur with Jeffcom dispatch to confirm they have this information and have the ability to push out messaging as needed. Messaging to the public was another topic of concern due to the transfer of alerting systems to Jeffcom dispatch and the need for a public information campaign to get more buy-in to the alerting system used by the county through Jeffcom dispatch. The recommendation in the county is that there is a need for public information on the alerting system, the evacuation language used to describe the various levels of evacuation

implementation, and public understanding of the shortfalls of alerting due to limited or no cell service in many parts of the county. All this public information should be focused continually across the county to be prepared for all types of emergencies. QR codes were discussed to allow people to sign up for the alert systems and depending on the alert program capabilities also allow for visitors or those staying in vacation homes to sign up for the alert systems for short terms during their visits.

Another area of preplanning that has been discussed in the past and needs continual attention is the evacuation and reunification of students and parents of schools in the area. Planning should be done with schools that could be threatened by wildfire. Along the same discussion was a conversation about other critical facilities and the potential to harden facilities that house at-needs populations. Once these are hardened a plan may include no evacuation but a shelter- in-place plan and protection of the facility and its occupants.

Other preplanning conversations had by participants centered around the need for more formal preplanning to identify Incident Command Post locations (and the need for a mobile command post), staging areas, safety zones, or temporary points of refuge that responders and the public could utilize in the case evacuation routes were cut off, as areas of last resort to protect individuals. It was also noted that the auto-aid system needs some maintenance and clean-up so that it can be more effective. Also, resource or IA packets, were discussed for incoming mutual or Auto Aid resources that included frequencies, maps, and other important information for responders not familiar with the area. This information could be tied to a QR code for quick download to a personal device.

Upgrades to the EOC were also discussed to include: More landlines, dedicated laptops tied to the EOC, backup power source (large generator), and more comfortable seating for long-duration incidents within the EOC.

Communications

The emergency alert notification system used by Clear Creek County is the Rave system. It was noted that there is a small percentage of the County's population who have opted-in to receive evacuation notifications. It was discussed that a more robust attempt needs to be made to get more of the public to subscribe to the system. There were also conversations about looking at other types of loud-area speakers or siren systems to notify the public of the need to evacuate for any emergency. This would require educating the public to search out information from trusted sources as to why the sirens are being activated. Discussions were also had into the use of helicopter-mounted loud speakers, and it was noted that this is dependent on other partners or mutual aid partners who might not be available. The Sheriff's office would need a helicopter with this capability if funds were found to purchase and maintain a platform.

Dispatch capacity was a concern with this scenario and discussions revolved around the need for more conversations with Jeffcom since they are a new entity providing dispatch for Clear Creek County. These discussions need to involve notifications of the public (Rave buy-in, IPAWS), capacity, public information, internal responder communication programs, and frequency management.

Concerns were raised about the inability to communicate across 800 MHz and VHF without having a trunking system. Further discussions will be had and further training on how to overcome communication challenges with various agencies who are responding to incidents

with different radio systems. This should be a priority as communication is vital during these types of incidents.

Equipment and Infrastructure

As the participants followed the scenario and completed an after-action review (AAR) there were several equipment and infrastructure needs identified that could increase preparedness, capacity, and firefighter and public safety. As previously mentioned, some sort of wide area alerting system (Loud area speakers or Sirens) should be explored due to the remote nature of the county and lack of cell service in many areas. Automation of this system should also be explored with input from Jeffcom dispatch.

EOC upgrades need to be pursued to look at having more landline phones hard-wired into the facility. A backup generator to power the facility when power from the electric grid is compromised. Building capacity by having a cache of laptop computers available for use by those in the facility. Use of Starlink to maintain connectivity or a FirstNet Cellular on Wheels (COW) to help maintain connection when losses occur to internet and cellular networks. As well as add some more comfortable seating for those spending extended time in the EOC. Along this same thought process and tied to incident response a mobile command unit was discussed for the county to help bring capacity to the EOC or at an incident scene or command post.

PPE for non-fire personnel was another area of conversation and if an opportunity for funding arises it should be considered for those responders. Communication always is a concern in these types of events and most of the agencies involved had some form of priority preemption for their agencies, however, some did not and some of the key partners had not heard of this. It is in the county's interest to make sure that some of the key partners (gas, water, electric, and public works) are included in these services. Starlink was also noted as a possible tool to overcome some of the communication shortfalls and is a tool that should be explored by the State, county, and respective agencies. Finally, a discussion occurred on having more responders, such as law enforcement, carry chainsaws in their cruisers to assist in getting roads open during imminent evacuation situations with downed trees. With this type of equipment proper PPE and training would also need to occur.

17. Section 4: Action Items and Conclusion

This tabletop exercise was a valuable step in building capacity for the completion of the Clear Creek Fire Authority's CWPP, planning and bringing light to the concerns a fast-spreading wildfire could have in this region. It helped capture the strengths already in place in the community as well as identify critical action items that will allow organizations to prepare for wildland fires and any other hazard that may require large-scale evacuations.

Participants in this exercise identified several action items to move forward with. This includes:

Collaboration/Partnerships

1. Continue to build upon the face-to-face relationships that have been built with the various agencies, neighboring departments, and interagency partners, as well as continue the positive collaboration that has been built through time.
2. Establish a county-wide public information officers' PIO working group.
3. Assess the role the private sector plays in wildland fires and periodically update the contact list for these types of resources (rafting companies, utilities, etc).
4. Continue to have tabletops with expanded participation to test capabilities. Consider inviting the public so they can understand the limitations of emergency response in these wildfire situations and for further public information sharing and education.

Preplanning

1. Consider establishing some management action points (trigger points) and firming up evacuation zones, utilizing GIS, in areas of the county that are at the highest risk of a wildland fire event.
2. Continuity of operations plans need to be reassessed or developed to consider a large wildfire event. Conversations with Jeffcom dispatch need to occur to determine what their capabilities are (notifications, IPAWS) and where they may have shortfalls for an event like this tabletop.
3. Work with schools and assisted living facilities to establish plans for evacuation, shelter-in-place, and reunification plans.
4. More Incident Command System (ICS) training for all responders with an emphasis on elected officials ICS training and non-fire agencies (DOT, Road and Bridge, etc.).
5. Formally identify safety zones and/or temporary refuge points for areas where evacuation points could be compromised for both responders and the public.
6. Explore the automatic aid system to find areas for improvement and look at resources to pass on to responders to aid in situational awareness.

Communications

1. Consider a public information campaign to increase the number of county residents utilizing the Rave system for receiving evacuation information.
2. Consider alternative systems for evacuation notifications, such as loud area speakers, sirens, NOAA radio, or IPAWS, and exercise with these systems.

3. Continue to work on interoperability between 800 MHz and VHF systems and find workarounds to gain vital communication links between various response organizations.
4. Increase wildfire evacuation public information during the pre-season.
5. Educate the public on defensible space and Firewise principles to give responders a chance to defend more communities.

Equipment and Infrastructure

1. Pursue equipment for other evacuation notification systems as mentioned. This could include the addition of a helicopter within the Sherrif's office with a load speaker.
2. EOC upgrades to be more resilient in times of emergencies. (backup power, additional landlines, laptop cache, mobile command unit, FirstNet Cellular on wheels, Starlink, and more comfortable chairs)
3. Consider wildland PPE for all responders not just fire to include chainsaws in law enforcement vehicles and training to go along with this equipment. Also, Ready, Set, Go! for Law Enforcement training.
4. Utilization of Messaging boards from partners for messaging and possibly purchasing extras for capacity in these large events.
5. Explore opportunities to improve communications by utilizing priority preemption with all involved in the emergency response to include key non-governmental stakeholders.

These steps can be undertaken by the respective agencies and organizations in the county and should be re-evaluated at the end of every fire season. Several planning items should be incorporated into 2025 pre-planning efforts and the community can determine if an annual or semi-annual tabletop exercise will be beneficial to continue preparedness enhancement.

In conclusion, this group has well-established relationships and the communication and planning to develop valuable partnerships, but these should be expanded and strengthened moving forward to improve large-scale response success for wildland fires. It is necessary to continue to capture lessons learned from any incidents or drills and re-evaluate the resources and capacities of all partners. Clear Creek County has an opportunity to build a strong CWPP and be a leader in wildfire preparedness along the front range region and across the state of Colorado.

18. Appendix A: Participant Feedback Summary

19. Exercise Feedback Form Results

Assessment of Exercise Design and Conduct

Assessment Factor	Strongly Disagree				Strongly Agree
a. The exercise was well structured and organized.	1	2	3	4	5
Responses	1				19
b. The exercise scenario was plausible and realistic.	1	2	3	4	5
Responses	2				18
c. The multimedia presentation helped the participants understand and become engaged in the scenario.	1	2	3	4	5
Responses	4				16
d. The facilitator was knowledgeable about the material, kept the exercise on target, and was sensitive to group dynamics.	1	2	3	4	5
Responses				1	19
e. The PPT Scenario used during the exercise was a valuable tool throughout the exercise.	1	2	3	4	5
Responses				3	17
f. Participation in this exercise was appropriate for someone in my position.	1	2	3	4	5
Responses	1				19
g. The participants included the right people in terms of level and mix of disciplines.	1	2	3	4	5
Responses	1			2	17
h. The exercise provided a good test of knowledge/skills.	1	2	3	4	5
Responses	1				19

What changes would you make to improve this exercise?

Please provide any recommendations on how the exercise could be improved or enhanced to better prepare emergency responders to safely and effectively respond to these types of incidents.

- Try to bring in representatives from power, gas etc. agencies to build relationships to work through these scenarios.
- Well done – kept things moving and engaging – realistic, practical, and just the right amount of challenges.
- A deeper conversation about communications and the 800 vs. VHF issues. Common practices financial concerns, resource orders, and when to contact interagency dispatch.
- Ability to type/ write all resources allocated/ assigned as a usual aid for the group to visually see who all is on scene.

- Local pictures of area for better visual representation.
- This was a fantastic exercise!!
- Better coordination to schedule may have increased participation of elected officials.
- Excellent and useful exercise.
- Maps – more zoomed out first, was hard to get oriented initially.

Any closing thoughts to help improve future exercises?

- Great exercise! Thank you.
- I appreciate the exercise and knowledge of the instructor.
- Great job of pulling all stakeholders.
- Facilitators did a great job involving all individuals of different agencies.
- Very valuable!
- Was a very good tabletop – I think this made some people think more about their rolls. Thank you!
- Great exercise.
- Encourage more participation from elected officials so they get an understanding of these challenges!
- Great training.

20. Appendix B: Exercise Situation Manual

"For Official Use Only"

Clear Creek Fire Authority

Wildfire Tabletop Exercise

Situation Manual



Facilitator: Craig Daugherty- (505) 634-6516- fire.edge.cd@gmail.com

March 5, 2024

"For Official Use Only"

Clear Creek Fire Authority Wildfire TTX

Preface

This tabletop exercise (TTX) is being provided by the International Association of Fire Chiefs (IAFC) through the Community Wildfire Protection Plan (CWPP) Assistance Program. The CWPP Assistance Program is being funded through an FY 2021 DHS/FEMA/AFG/Fire Prevention & Safety Grant. Through the grant, the IAFC and WUI subject matter experts are assisting in community wildfire risk reduction planning and engagement efforts with fire departments across the United States. Clear Creek Fire Authority applied for this grant and was selected as one of six departments nationwide to receive targeted assistance for the creation of a CWPP and assistance with a wildfire public education community day. In addition to the general assistance mentioned above, they were also selected to receive a wildfire tabletop exercise to assist the community in preparing for a wildfire and to support the creation of the CWPP.

All exercise participants should use appropriate guidelines to ensure proper control of TTX information within their area of expertise and protect this material per current jurisdictional directives. Public release of exercise materials to third parties is at the discretion of the Clear Cree Fire Authority and is based solely on the sharing of lessons learned.

Introduction

Background

The reality of destructive wildfires occurring in communities across the country is becoming more common every year. Examples such as the 2018 Camp Fire in Paradise, California, the 2021 Marshall Fire just to your East, and the 2023 Lahaina Fire in Maui County Hawaii, show how large fast-spreading wildfires can cause chaos to a community. Unfortunately, these fires proved to be deadly and overwhelmed emergency responders almost immediately with “unprecedented” fire behavior. All were driven by sustained strong winds and burned at record paces into inhabited areas, destroying multiple homes, businesses, and infrastructure, surprising even veteran emergency responders. The Lahaina Fire alone killed 100 people, making it the deadliest fire in more than a century. The Camp Fire killed 85 and destroyed close to 19,000 structures, with almost 14,000 of them being residential homes. Much of the destruction in both occurred within the first four hours.

As some of you may have experienced in the Marshall or East Troublesome Fires, fast-moving fires of significant magnitude quickly became a reality for this region. Given the alignment of fuels, weather, and topography these fires serve as great reminders of the need for continued preparedness for large wildfire events.

The mitigation work done in and around some of your communities will help firefighters in most situations; however, there are times when conditions line up to produce the potential of a catastrophic event. A fire like the Paradise Fire is an all too real scenario for many communities adjacent to wildland fuels. Environmental conditions supporting extreme fire growth (sustained drought, several days of low RH, low fuel moistures, hot temperatures, and high winds) happen many times yearly in this region. It is just a matter of time before these conditions meet up with an ignition, potentially causing a very catastrophic event.

Purpose

The purpose of this scenario-based exercise is to provide participants with an opportunity to critically review current response concepts, agency roles and responsibilities, plans, systems, and capabilities for response to a rapidly emerging WUI fire with an ongoing evacuation of the community. Aiming to learn from lessons from real-world incidents, this TTX is designed to be a pre-incident evaluation. The focus is on local emergency responder command and control, coordination, critical decisions, notifications, public information, and eventual integration of state and federal assets necessary to save lives and protect the health and safety of both responders and the public. Clear Creek Fire Authority has a history of interagency partners working well together, as demonstrated during previous incidents. We will work to maintain and enhance these existing collaborative processes and supporting systems, to prepare your community for the potential of fast-spreading wildland fire and help you bring focus to your CWPP efforts.

Exercise Design Goals and Objectives

Goal: To work together as emergency response agencies and partners, dealing with a catastrophic wildfire scenario impacting communities. Identify the roles and responsibilities of each agency that will ultimately lead to better preparation and preparedness for a real-world event.

Objectives:

- Gather emergency responders and partners together for a TTX involving a rapidly evolving wildland incident.
- Evaluate agency roles and responsibilities in a catastrophic wildfire scenario impacting the community and how each agency will collaborate with other organizations.
- Define and understand each agency's role in the incident and how they fit within the organization of incident command or the Emergency Operations Center.
- Identify blind spots that need to be addressed to be successful with future events.
- Document key outcomes and follow-up actions of the tabletop.

Exercise Structure and Guidelines

The TTX will be a multimedia, facilitated exercise. Each module will begin with a multimedia update that summarizes key events occurring within that time. After the update, the facilitator will engage the various functional response agencies on their appropriate response issues, actions, concerns, and partners with whom they will collaborate. Dialog with all the represented organizations will then occur to determine assistance that could be provided to a specific situation and how an interagency approach can best be accomplished.

Guidelines:

(2) The TTX will be held in an open, high-energy, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
(3) Respond based on your knowledge of current plans and capabilities (utilize only your existing assets) and insights derived from your experience and training.
(4) Decisions are not precedent-setting and may not reflect your organization's final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions. **Do what's right!**
(5) Issue identification is not as valuable as suggestions and recommended actions that could improve response and preparedness efforts. Critical thinking and problem-solving should be the focus.

Assumptions and Artificialities

In any exercise, many assumptions and artificialities may be necessary to complete play in the time allotted. During the exercise, the following apply:

-Events are plausible and occur as they are presented.
-There are no hidden agendas or trick questions.
-All players receive information at the same time. Please don't look ahead in this manual.

Agenda

0830 - Introductions

- Purpose of tabletop
- Introductions of agencies: name and jurisdiction you are representing.
- Review the situation manual

0900 – Kick-off Tabletop scenario.

0900-1030 - Scenario inputs 1030sh

- Break

1045-1215 - Scenario inputs

1215-1230 - Finish up scenario.

1230 – On-site lunch

1315- After Action Review

What went right that we want to capitalize on or continue? What are our strengths?

What needs improvement, what were our challenges, and what solutions need to be pursued?

What needs to be changed in training, policies, procedures, SOP/SOGs, and interagency collaboration?

Any equipment or infrastructure shortfalls that need to be considered? What could help with your jobs?

Any unresolved issues?

Recommended actions to focus on moving forward. Who's responsible for carrying forward?

Notes:

Scenario

It's Saturday, June 29th. After months of below-average moisture, the US drought monitor shows most of Central Colorado in extreme to exceptional drought. Energy Release Components (ERC's) are above the 97th percentile which puts the fire danger at Extreme. Wildland fires have been occurring for over two months in Colorado with many of them requiring Interagency Incident Management Teams (IMT'S). Currently, all the IMT's in the region are committed to large or emerging fires. Local resources have been heavily involved in the regional response. The National Weather Service Boulder office issued the weather below the evening before including zones 212 and 216.

WEATHER DISCUSSION

A shallow mountain wave will be passing over the area tonight producing a strong wind event. Winds will begin peaking tonight and into Saturday. Hot, dry, and strong Southwesterly winds are expected starting late this evening, peaking overnight into Saturday morning before slowing Saturday afternoon. These winds have the potential to reach critical speeds. Winds are likely to initially reach speeds greater than 30 mph by midnight and will continue to increase through the day Saturday. Relative humidity is expected to reach critical levels overnight into Saturday with the influx of dry air. Conditions will be favorable for rapid fire spread which may threaten life and property. Use extra caution with potential ignition sources, especially in grassy areas. Outdoor burning is not recommended. A Red Flag warning has been issued for Western Colorado as this system approaches.

*****CRITICAL RED FLAG CONDITIONS FROM 1900 TODAY TO 1900 TOMORROW*****

TONIGHT: RED FLAG conditions and Wind Advisory in effect from 1900 this evening to 1900 tomorrow WEATHER:

Continued above-average temperatures and poor overnight humidity recovery.

MINIMUM TEMPERATURES: 58-63 degrees above 8500ft and 62-68 degrees below 8500ft.

MAXIMUM RELATIVE HUMIDITY: 15% to 17% above 8500ft / 13% to 16% below 8500ft.

-24 HOUR TREND- down 2 to 5%

20 FOOT WINDS: Southwest winds 10 to 15 mph with gusts to 25 in the early evening. Winds increasing to 15-25 mph with gusts to 30 after 2400. Winds gradually increase through the night and into the early morning.

CHANCE OF WETTING RAIN: 0% LAL:

1

SATURDAY: RED FLAG Warning and Wind Advisory in effect WEATHER:

Sunny, windy, and continued dry.

MAXIMUM TEMPS: Ranging from 70-75 above 8500ft and 78-83 below 8500ft

-24 HOUR TREND- little change.

MINIMUM RELATIVE HUMIDITY: 12-15% above 8500 ft. and 10% to 13% below 8500ft.

-24 HOUR TREND-down 2%

20 FOOT WINDS: Southwest to West winds 25 to 30 mph gusts to 40 before 1000 then increasing to 30 to 40 mph by mid to late morning, gusts to 40-50 changing out of the West. Winds decrease slightly mid-afternoon possibly shifting out of the Northwest 20-25 mph with an occasional gust to 30-35 mph possible.

CHANCE OF WETTING RAIN: 0%

At 0530 Chief Jones receives a text from one of the volunteer firefighters with the following video attached.

"Morning Chief, sorry it's so early, my brother was heading to work this morning at the Henderson Mine and sent me this video. It's about two miles West of Empire. Have we been called for this? I haven't seen anything on I Am Responding, he thinks it may have just started."

Chief texts the Forest Service FMO to see what's going on and at 0600 receives this text.

"Good morning, Chief, yes, Engine 612 is on scene they were on another fire this morning and were able to get there quickly. Sounds like it's about 5 acres and spreading fast. My crew is working on a hose lay but they are having issues getting around it in this wind. What resources do you have available to assist us? Winds are supposed to be brutal today!!"

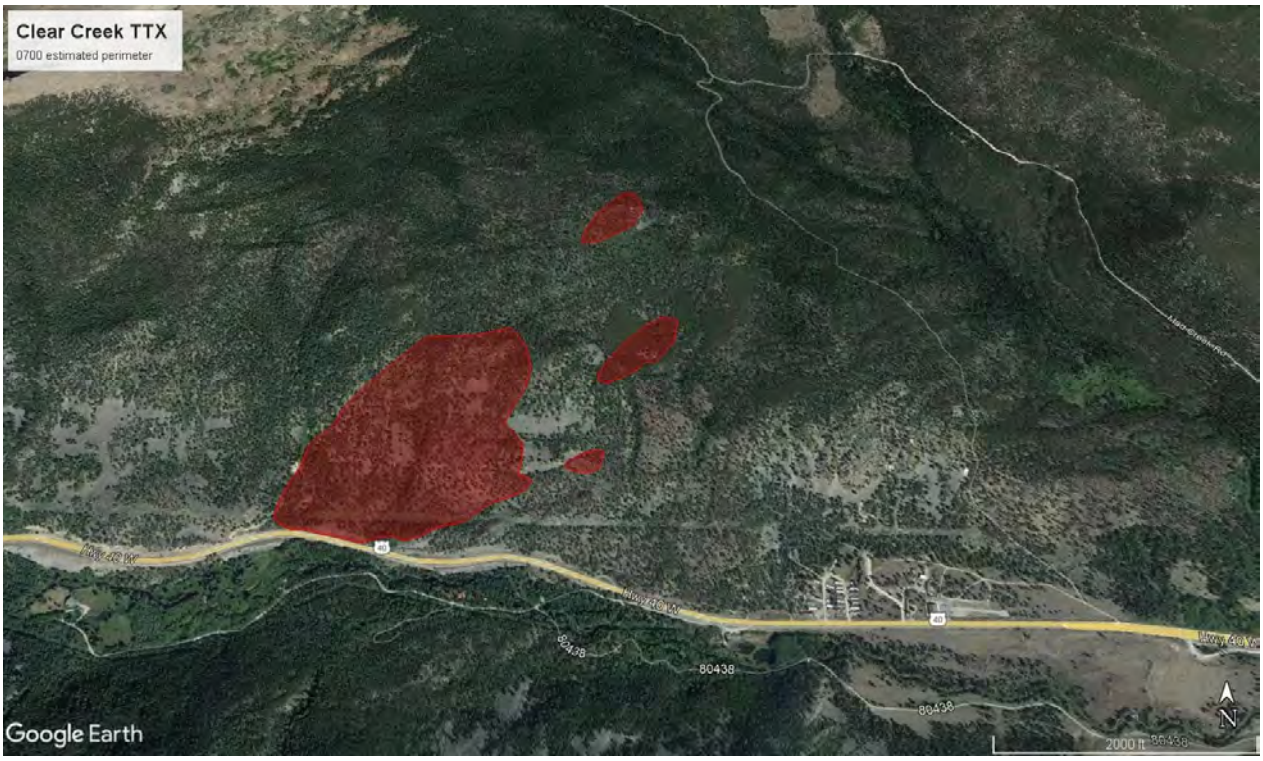
This is an estimated location of the fire that he sent you.



Questions-Are you concerned about a fire in this area? What's your current thought process? What resources are you sending to help? Currently, are you informing anyone else of this situation?

Notes:_____

At 0700 you get an update; they are estimating the fire to be about 75 acres with several established spot fires and multiple small spots. They are reporting no containment but are anchoring along Highway 40 near the heel. Here is what the Incident Commander (IC) has drawn as a perimeter. IC states they are ordering resources, but they are stretched. Fire behavior is extreme and they are discussing the possibility of ordering an Incident Management Team (IMT) but no teams are available in the region.



Questions- Do you have a say in the decision to order an IMT? Have you established any management action points (Trigger Points) for a fire coming from this area? If so, what are they? How engaged are you in the management of this fire?

Notes:

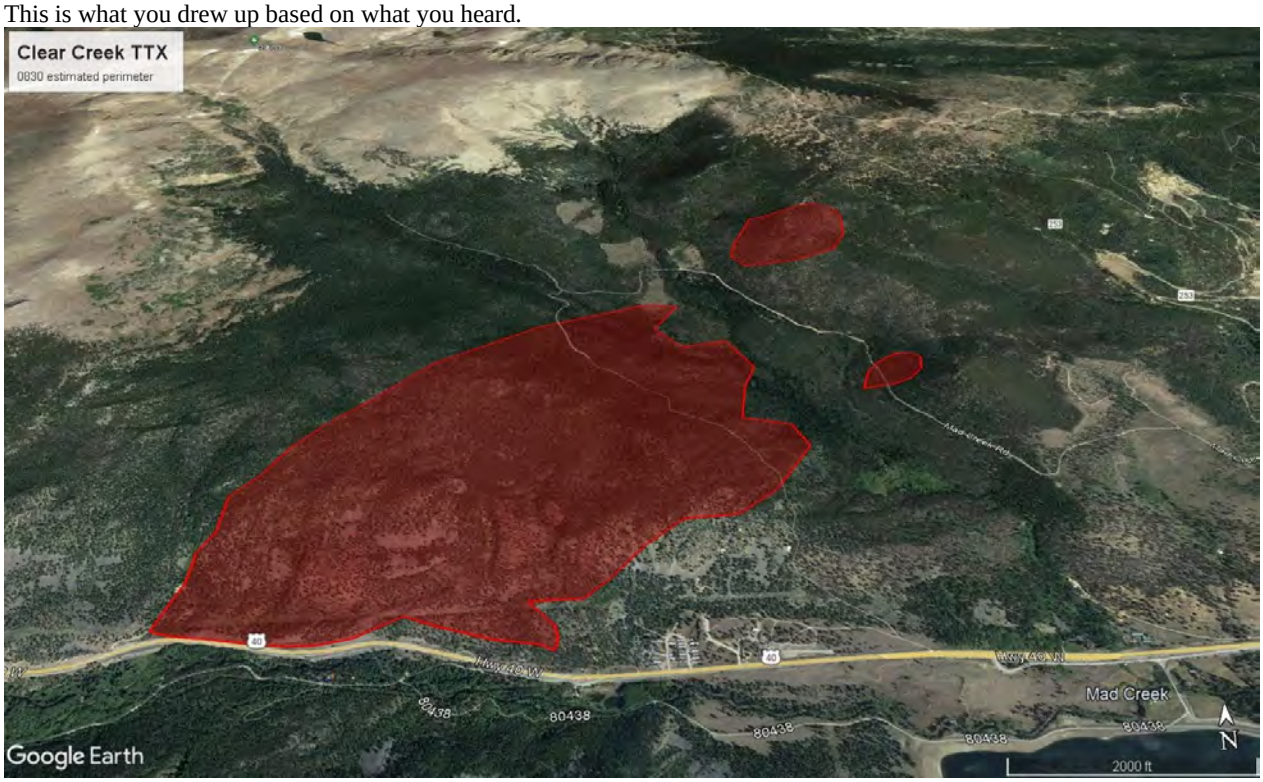
As the morning goes on, this is the smoke column that is seen from Fall River Drainage.



What are your current thoughts? Who are you having discussions with? How are you informing the public about what's occurring? Visitors in the area? How have you historically organized multi-jurisdictional incidents?
Notes:_____

At 0830 you listen to air attack on your radio with his initial flight of the fire, this is what you hear as he's talking to the IC. "This fire is making a hard push to the Northeast; I'm having trouble seeing under the column at this time near the head of the fire, I can see it has made it down to Mad Creek but not sure if it has crossed it yet. As I fly near the heel it appears the fire may be holding along Highway 40, crews seem to be doing well with that piece of ground. However, there is a finger that is making a hard push toward the trailer park along 40…that'll need some structure protection fairly quickly. Along the West-Northwest flank, fire is very active but there may be some opportunities to run that up into some rock...Coming around this North side I do see quite a few vehicles and campers at Bill Moore Lake, they are probably in a safe spot but if they try to leave, they'll be right in front of this thing. I did get a quick look under the column, and you do have some very established spot fires across Mad Creek and Mad Creek Road. I do see what appears to be an occupied structure off Mad Creek Road, but I think you have fire-cutting-off access to that area. The one spot is well established and over the ridge into the upper Lion Creek area, I'm guessing anywhere from 40-50 acres on this spot… some structures up North Empire Creek will need evacuating soon…I am having trouble seeing under the column and through the smoke, but it appears there are numerous spot fires with several becoming well established...I see another spot that's at least 6-8 acres. Very rough air in here, we are going to have to pull back. I have air support on order but not sure how effective they'll be in this wind or if they can safely fly today. I'm estimating over 500 acres on the main fire, with high spread potential. I'm assuming you are in contact with the communities out in front of this thing?"

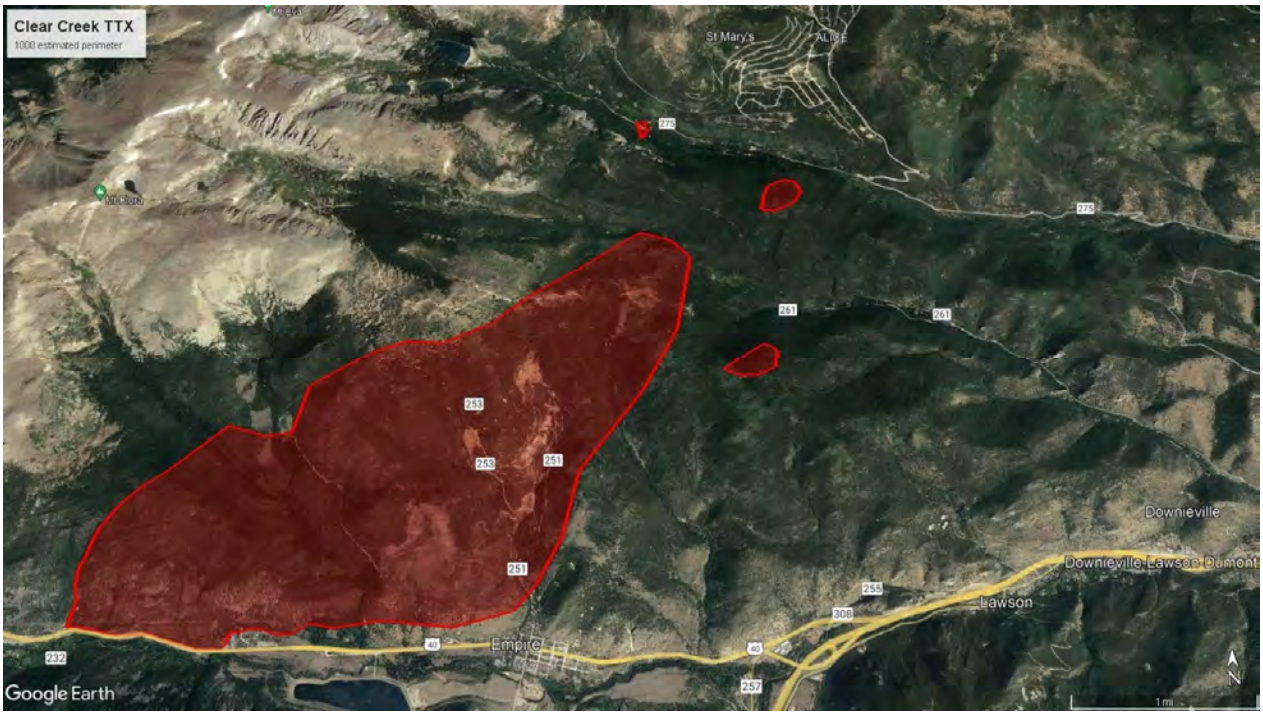
This is what you drew up based on what you heard.



What are your thoughts? Any areas of concern where you may need extra time to prepare?
Where are you at on evacuations? What is your message to the public? How do you get that message out?
Notes:

Responders are having issues with people refusing to evacuate. How do you handle this situation? Can you force them? What system do you have in place to document and keep accountability for this situation? Who has the statutory authority to issue an evacuation?
Notes:

Below is the estimated perimeter as of 1000, the fire is being called the West Fork Fire. Multiple structures are now on fire along Highway 40 and up North Empire Creek. The approximate acreage of the main fire is over 3000 acres with multiple small spot fires. Besides the many small spot fires, there are several large spot fires as seen on the map, the largest being about 30 Acres.



Does the current fire perimeter information change any of your evacuation protocols or routes? Who are the partners you are bringing together to be successful? What are each of your organization's current priorities? Do you have designated safety zones or temporary refuge areas identified?

Notes:



A Sheriff's deputy is reporting a spot fire around Rainbow Road and Mackinaw Lane. As she's reporting it, a tree comes down right in front of her, knocked down by the wind. She is trapped behind the down tree, towards the end of Kimberly Road, a one-way spur road, along with two civilian families she was evacuating. She reports no other way out and is concerned they are going to get burned over. She has no way to move the tree.

What are your actions? Who will you send to cut or move the tree? Do you currently have adequate resources? How are you tracking the accountability of responders?

Notes:

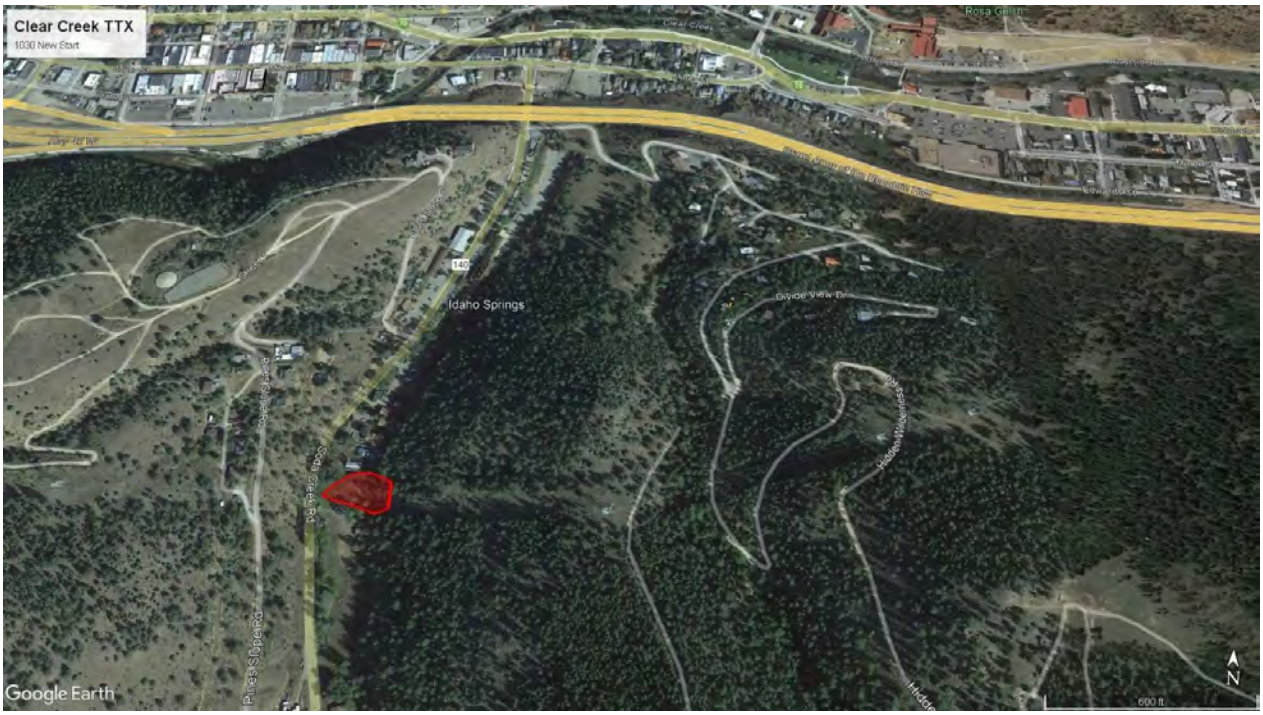
One of your local elected officials called, wanting to know why traffic isn't moving East on County Road 275, Fall River Road. They are trying to evacuate and are concerned that they are going to get burned over; they are in heavy smoke and see flames on the ridge to the West. How do you deal with this situation?

Notes:

At 1030 a mutual aid Engine responding West on I-80 reports a possible new start on Soda Creek Road. They will give a size-up once they are on the scene. Dispatch is receiving several calls for a new start where the power line crosses Highway 140 in the Soda Creek drainage. The reporting party says the fire is spreading fast along the power line right of way. The reporting party also reported a male was running from the area where the fire started jumped into a tan SUV and left the area. Law enforcement, what are your priorities with the information given? Fire, what does this change for you?

Notes:

The mutual aid unit arrives on the scene of the new fire and reports about ½ acre on fire with rapid-fire spread, one structure is already involved and three are imminently threatened. Below is an estimate of the fire's current location.



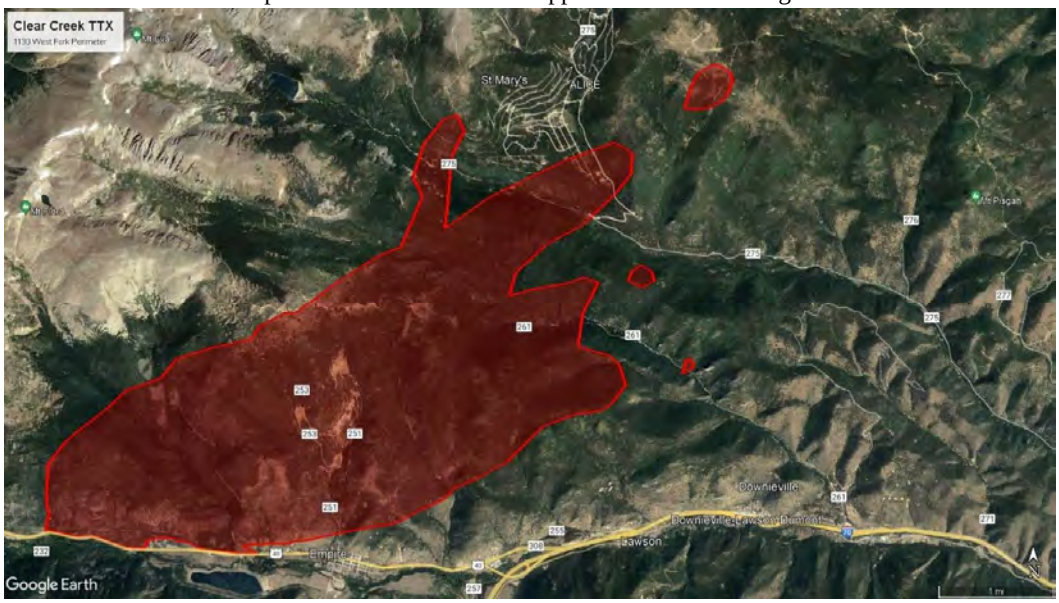
With everything going on at this point: What are your current concerns and priorities? What are your current resource needs and how are you dealing with them?

Notes:

You were just informed that your spouse called. They were on Facebook and a private individual has taken it upon themselves to be the "information clearinghouse". The private individual, however, is giving out wrong information on evacuations that could lead people into harm's way. The individual is also reporting that an ecoterrorism arsonist is starting all these fires. How would you handle this situation?

Notes:_____

At 1130 the Multi Mission Aircraft sends you maps of both fire perimeters. The approximate size of the West Fork Fire is 6,000 acres with well-established spot fires and erratic fire behavior. The new start, now named the Soda Fire, is around 10 acres with some smaller spot fires. Fire behavior is suppressed due to shading from other fires in the area.





You get a report from one of your units responding to spot fires off Divide View Road. "We have multiple spot fires that are becoming established near homes. We won't be able to handle it with the resources on hand. We grabbed a hydrant and there's no water pressure, can you check on that for us? We are about out of tank water….We are going to make sure that no one is in these homes that are immediately threatened." One of the firefighters snapped this picture on arrival.



What is your direction to the crew? How do you deal with the water situation?

Notes:_____

How is your working relationship with the various utility providers (Gas, Electric, Water, etc.)? Are they part of your unified command structure? How do you contact them? What if they are being evacuated?

Notes:_____

Around this same time a husband calls dispatch to say his wife and kid are trapped at home. He has their only working vehicle at work in Denver.

His wife works a night shift and was just woken up by their little boy because he heard sirens passing by on the road. They see smoke and fire outside the home located on Elk Court.



Above is a picture of the Elk Road and Silver Creek Road intersection. What is your plan to deal with this situation?

Notes:_____



A unit of yours is able to push through the spot fire on Mill Creek Road-261. When they get through, they find an elderly gentleman, his wife, and three dogs have a 41-foot travel trailer jack- knifed and stuck in the middle of the road, there are several families stuck behind them on the one-way road with no way to get around the vehicle. They are getting multiple spot fires in their immediate vicinity. Their escape route back to the Southeast is cut off by the fire and they can go no further North.

What is your direction to the crew? How would you remedy this situation?

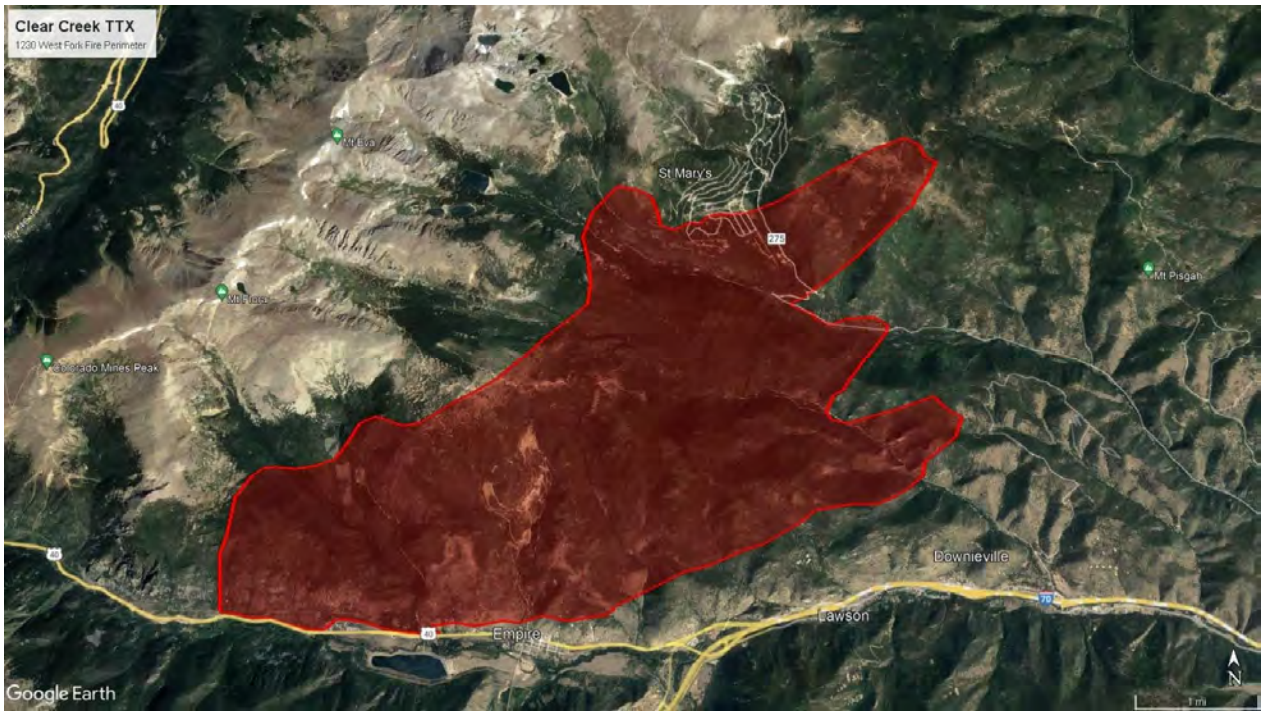
Notes:



Several individuals have called and are requesting assistance with evacuating horses that someone let out along Fall River Road. They are concerned the horses will get run over, due to the low visibility with the smoke. What actions do you take?

Notes:

At 1230 the West Fork fire is estimated to be over 9,100 acres. Forward progress on the Soda Fire was stopped at 20 Acres.



With the current fire perimeter, what are your primary concerns? Are there any changes to how you are organizing? Any new partners that you are bringing together? What are your strategic thoughts?

Notes:

Are there at-needs populations that are a concern? Assume this is a weekday and parents are calling concerned about their kids at several of the schools. What's your plan for these locations that are threatened? Other Facilities?

Notes:

The fire perimeters are now impacting multiple points within several communities. You have just heard on the radio that a county road and bridge employee trying to clear a large tree along Mill Creek Road was hit with a large limb and appears to have a broken femur. At the same time, a deputy is flagged down a long Fall River Road by a woman and child, both are severely burned, requesting an ambulance. You only have one ambulance unit available; how do you resolve this issue? What are your options?

Notes:

The fire has taken down a primary communications site.
What if your communication towers go down? What if cell phones are taken out? What redundancies do you have in place to maintain communications?
Notes:

The frontal passage finally brings in some moisture and stops the fire spread, however, the fire has impacted a large portion of several community's infrastructure and homes.
At what point do you allow repopulation to occur? Who ultimately makes this decision? Who are the partners that need to be included? Who informs the public that their homes are lost? How do you handle your emergency services when many of your responders are personally affected?

Notes:

Are there, or should there be projects in your CWPP re-write that would help lessen the impacts of a similar fire here in Clear Creek County?

Notes:

END SCENARIO



Thank you for your time and participation. We hope you found utility in this tabletop and look forward to continuing to work with you, as your community works to be better prepared for a wildland fire.

Please take the time to fill out the attached evaluation form so we can continue improving our delivery of future tabletops.

Homeland Security Exercise Evaluation and Action Steps Clear Creek Wildfire Tabletop Exercise

Exercise Design and Conduct

1. What is your assessment of the exercise design and conduct? *Please rate, on a scale of 1 to 5, your overall assessment of the exercise relative to the statements provided below, with **1** indicating **strong disagreement** with the statement and **5** indicating **strong agreement.***

Rating of Satisfaction with

Exercise Assessment Factor	**Strongly Disagree**				**Strongly Agree**
a. The exercise was well structured and organized.	1	2	3	4	5
b. The exercise scenario was plausible and realistic.	1	2	3	4	5
c. The multimedia presentation helped the participants understand and become engaged in the scenario.	1	2	3	4	5
d. The facilitator(s) was knowledgeable about the material, kept the exercise on target, and was sensitive to group dynamics.	1	2	3	4	5
e. The story map used during the exercise was a valuable tool throughout the exercise.	1	2	3	4	5
f. Participation in the exercise was appropriate for someone in my position.	1	2	3	4	5
g. The participants included the right people in terms of level and mix of disciplines.	1	2	3	4	5
h. The exercise provided a good test of our knowledge/skills.	1	2	3	4	5

Column Totals:					
Grand Total:					

2. What changes would you make to improve this exercise?

Please provide any recommendations on how the exercise could be improved or enhanced to better prepare emergency responders to safely and effectively respond to these types of incidents.

_____

_____

_____

_____

3. Any closing thoughts to help improve future exercises?

_____

_____

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