



MANITOU SPRINGS CITY COUNCIL REGULAR MEETING AGENDA

City Council meetings are held in hybrid form by Zoom
(remote) or in-person at Memorial Hall.

Memorial Hall

606 Manitou Avenue

Manitou Springs, CO 80829

Remote: www.manitouspringsgov.com; click on meeting
link under "Government; City Council" page

Position	Name	Term Expires
Mayor	John G. Graham	January 6, 2026
At-Large	Judith Chandler	January 4, 2028
At-Large	John Shada	January 4, 2028
At-Large	Julie Wolfe	January 4, 2028
Ward 1	Mayor Pro Tem Natalie Johnson	January 6, 2026
Ward 2	Nancy Fortuin	January 6, 2026
Ward 3	Michelle Whetherhult	January 6, 2026

June 3, 2025

6:00 PM

THE CITY COUNCIL MAY TAKE ACTION ON ANY OF THE FOLLOWING AGENDA ITEMS AS PRESENTED OR MODIFIED PRIOR
TO OR DURING THE MEETING, AND ITEMS NECESSARY TO EFFECTUATE THE AGENDA ITEMS

A. CALL TO ORDER

B. PLEDGE OF ALLEGIANCE

C. ROLL CALL

D. APPROVAL OF AGENDA

E. PUBLIC COMMENT ON NON-AGENDA ITEMS

F. CONSENT CALENDAR

1. May 13, 2025 City Council Special Meeting Minutes

2. May 20, 2025 City Council Regular Meeting Minutes

G. BUSINESS

1. Art on the Avenue 2025 Review and Authorization

2. Community Wildfire Protection Plan Approval

3. First Reading of Ordinance No. 1025, An Ordinance Amending Section
13.36.100 of the Municipal Code

4. First Reading of Ordinance No. 1125, An Ordinance Repealing and
Reenacting Title 14 of the Manitou Springs Municipal Code Concerning
Stormwater Quality Management and Discharge Control

5. First Reading of Ordinance No. 1225, An Ordinance Amending Title 6 with the Addition of a New Chapter 6.17 Concerning Discharges to the Municipal Separate Storm Sewer System
6. First Reading of Ordinance No. 1325, An Ordinance Amending Chapters 18.03 and 18.06 of the Manitou Springs Municipal Code Concerning Storm Water Management and Grading and Erosion Control Permit Provisions

H. HEARINGS

1. Second Reading and Public Hearing of Ordinance No. 0825, an Ordinance Reducing the City's Special Tax on the Sale of Retail Marijuana and Retail Marijuana Products

I. RECEIVE OR ACT ON COUNCIL CORRESPONDENCE

J. CITY ADMINISTRATOR REPORT

K. EXECUTIVE SESSION

1. An Executive Session to determine positions relative to matters that may be subject to negotiations; developing strategy for negotiations; and instructing negotiators, pursuant to Section 5.1(d) of the Manitou Springs Municipal Charter. This executive session concerns the Manitou Springs Metropolitan District.

ADJOURN

The City of Manitou Springs does not discriminate on the basis of disability in the admission to, access to, or operations of programs, services or activities. Reasonable accommodation will be provided to ensure equal access to all. Individuals who would like to request auxiliary aids or services should contact the ADA Coordinator at (719) 685-5481 or jfryer@manitouspringsco.gov. You may also contact the City Clerk's Office at cityclerk@manitouspringsco.gov or (719) 685-2554. Please provide a minimum of 3-5 days advance notice.



Memorandum

Title: May 13, 2025 City Council Special Meeting Minutes

From: City Clerk's Office

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

June 3, 2025

Purpose:

To review and approve the meeting minutes from the May 13, 2025 City Council meeting.

Background:

The City Council met in special session on May 13, 2025.

Pros and Cons:

N/A

Fiscal Impact:

None.

Workload Impact:

Approximately one hour of staff time to prepare and review the minutes.

Recommended Action:

Approve the May 13, 2025 City Council special meeting minutes through the approval of the consent calendar.

**CITY OF MANITOU SPRINGS
CITY COUNCIL**

Special Meeting Minutes
606 Manitou Avenue
May 13, 2025

The City Council of Manitou Springs met in Special Session on Tuesday, May 13, 2025, at 606 Manitou Avenue, in the City of Manitou Springs, County of El Paso, and State of Colorado.

COUNCIL MEMBERS PRESENT FOR ROLL CALL:

Mayor John Graham
Mayor Pro Tem Natalie Johnson
Councilor Judith Chandler
Councilor John Shada
Councilor Nancy Fortuin
Councilor Michelle Whetherhult

COUNCIL MEMBERS ABSENT FOR ROLL CALL:

Councilor Julie Wolfe (Excused)

A. CALL TO ORDER

Mayor Graham called the meeting to order at 6:01 PM.

B. ROLL CALL

All members of the City Council were present for roll call, except for Councilor Wolfe.

Operator in Responsible Charge (ORC) John Elwell provided an update on the potable water supply. He shared that 275,000 gallons of water were treated earlier in the day and that the water plant was still operating as of 6:00 PM, which are both improvements from the previous day. He stated that there is still a lot of water runoff and that it is normal to lose some water overnight as there are a few leaks in the systems. He noted that normally the water supply would be at 700,000 during this time of year and that the tanks are 45 percent full. ORC Elwell explained that Colorado Springs Utilities (CSU) has been working with staff to analyze the water. He shared that the team is focused on maintaining and improving water supply until the CSU water line is fixed, which is expected to be completed May 16, 2025.

City Administrator Denise Howell commended ORC Elwell for his efforts and emphasized the importance of continuing to follow water restrictions to conserve as much as possible until the issue is resolved.

Mayor Graham noted that the city's Public Information Officer has regularly been sending out alerts to keep residents and businesses informed. He suggested that Council forward the messages for anyone who may not be signed up for the alerts.

City Administrator Howell shared that the alerts have been shared on Nextdoor, Facebook, Bluesky and Peak Alert. She stated that the Peak Alert is a great way to stay informed.

Mayor Pro Tem Johnson requested that staff share the numbers with the community so that the conservation efforts can be recognized by everyone who is making an effort to conserve the water supply.

Councilor Chandler expressed concern about the delivery of information during the water supply emergency. She stated that she spoke with multiple residents who were unaware of the issue and requested that for future emergencies of a similar nature that require immediate notice and action from the public, the city consider using another system, such as the audible emergency announcement system.

F. EXECUTIVE SESSION

1. An Executive Session for the consideration of documents protected by the mandatory nondisclosure provisions of the Open Records Act, pursuant to Section 5.1(f) of the Manitou Springs Home Rule Charter, specifically C.R.S. §24-72-204(1)(a), et seq., and by reference C.R.S. §29-2-106(4)(c)(II), pertaining to sales tax information of a confidential nature

Mayor Graham read the purpose of the Executive Session into the record at 6:11 PM.

Councilor Shada moved to enter the Executive Session for the stated purpose. The motion was seconded by Councilor Fortuin. The motion was carried unanimously (6-0).

The City Council moved back to Special Session at 7:12 PM. Mayor Graham confirmed the Executive Session was held solely for the stated purpose and that no formal decision was made.

ADJORN

With no other items to discuss, Councilor Fortuin moved to adjourn the meeting. The motion was seconded by Councilor Shada. The motion was carried (6-0). The meeting adjourned at 7:12 PM.

Attest:

John Graham, Mayor

Elena Krebs, City Clerk

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Memorandum

Title: May 20, 2025 City Council Regular Meeting Minutes

From: City Clerk's Office

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

June 3, 2025

Purpose:

To review and approve the meeting minutes from the May 20, 2025 City Council meeting.

Background:

The City Council met in regular session on May 20, 2025

Pros and Cons:

N/A

Fiscal Impact:

None.

Workload Impact:

Approximately nine hours of staff time to attend the meeting and to prepare and review the minutes.

Recommended Action:

Approve the May 20, 2025 City Council regular meeting minutes through the approval of the consent calendar.

**CITY OF MANITOU SPRINGS
CITY COUNCIL**

Regular Meeting Minutes
606 Manitou Avenue
May 20, 2025

The City Council of Manitou Springs met in Regular Session on Tuesday, May 20, 2025, at 606 Manitou Avenue, in the City of Manitou Springs, County of El Paso, and State of Colorado.

COUNCIL MEMBERS PRESENT FOR ROLL CALL:

Mayor John Graham
Mayor Pro Tem Natalie Johnson
Councilor Judith Chandler
Councilor John Shada
Councilor Julie Wolfe
Councilor Nancy Fortuin
Councilor Michelle Whetherhult

A. CALL TO ORDER

Mayor Graham called the meeting to order at 6:01 PM.

B. PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

C. ROLL CALL

All members of the City Council were present for the roll call.

D. APPROVAL OF AGENDA

Councilor Fortuin moved to approve the agenda as presented. The motion was seconded by Councilor Shada. The motion carried unanimously (7-0).

E. PUBLIC COMMENT ON NON-AGENDA ITEMS

Linda Morlan, 37 Minnehaha Avenue, inquired about correspondence from herself to the former Deputy City Administrator.

Deborah Fox, 40 Delaware Road, expressed concerns about an ongoing storm drainage and pavement issue at her neighbor's property.

William Coltman, 40 Delaware Road, explained that he has been parking in the area by the wall with the drainage issue for years and that recently the city repaved the area resolving the initial issue. He added that the curb was painted for a fire lane, removing the parking spot and expressed concern about the process for the change in parking.

F. POLICE DEPARTMENT AWARDS

Police Chief Bill Otto presented four Chief Commendation Awards and two Leadership Awards. He explained that the Chief's Commendation is awarded to a sworn officer or civilian employee based on exemplary service, either for a specific incident or for overall work performance and that the Leadership Award is awarded to sworn officers who are not necessarily in formal leadership positions but have demonstrated exceptional leadership skills in the course of their assigned duties over an extended period.

Mayor Graham stated that he believes that policing in Manitou Springs is different than some other cities, because the residents have higher expectations. He thanked the officers for going above and beyond enforcing the law to take care of the community. He added his appreciation for the support of the families of the police officers.

Councilor Fortuin thanked the police officers and chief for their service and stated that she was impressed with the accomplishments presented.

Note for the record – The City Council took a break at 6:30 PM and reconvened at 6:38 PM.

G. CONSENT CALENDAR

1. Presentation of Warrants
2. May 3, 2025 City Council Special Meeting Minutes
3. May 6, 2025 City Council Regular Meeting Minutes
4. Requesting Approval of the Energy Performance Contract with Schneider Electric
5. Requesting Approval of a General Services Agreement with Viking Painting LLC for the Mesa Tank 1 Rehabilitation
6. Approval to file a Request for an Extension to File the City Audit with the State Auditor
7. Consideration of a Status Change Request for Open Space Advisory Committee Member Paul Arlinghaus

Councilor Shada moved to approve the consent calendar as presented. The motion was seconded by Councilor Chandler. The motion was carried unanimously (7-0).

H. PRESENTATION

1. Proclamation No. 0725, A Proclamation to Recognize the 65th Annual National Public Works Week

Councilor Shada read Proclamation No. 0525 into the record, designating May 18, 2025 to May 24, 2025 as Public Works Week.

Mayor Graham expressed appreciation for the Public Works Department on behalf of the City Council.

2. Proclamation No. 0825, A Proclamation to Recognize May as Archeology and Historic Preservation Month

Councilor Whetherhult read Proclamation No. 0825 into the record, declaring the month of May as Archeology and Historic Preservation Month.

Mayor Graham shared appreciation for the work of the planning staff in supporting the Historic District and noted that historic preservation plays a vital role in maintaining Manitou Springs as a welcoming place to live.

3. Proclamation No. 0925, A Proclamation Recognizing the 56th Annual Professional Municipal Clerks Week

Mayor Pro Tem Johnson read Proclamation No. 0925 into the record, recognizing May 4, 2025 to May 10, 2025 as Professional Municipal Clerks Week. She thanked City Clerk, Elena Krebs and Deputy City Clerk, Kristen Dukoi for their work.

Councilor Chandler expressed appreciation for City Clerk Krebs, noting her responsiveness and the positive experiences she has had with the City Clerk.

City Clerk Krebs commented that the work is a joint team effort and shared that she is thankful for her team.

Mayor Graham echoed appreciations for the Clerk's Office.

I. BUSINESS

1. Approval of Easement for 122 Palisade Circle

Planning Director Fred Rollenhagen explained that the proposed easement is to address property encroachments onto city owned property at 122 Palisade Circle and that the property owners are trying to sell the property but are unable to proceed due to the encroachment. Planning Director Rollenhagen recommended that the County Clerk and Recorder fees be paid by the property owners. He reviewed the costs associated with preparing the easement, including attorney fees and 40 to 60 staff hours, and noted that there is no procedure for the city granting easements.

There was a general discussion about the time and effort spent on the easement, during which, concerns were raised about processing easements without a formal procedure, and the need for consistency to avoid potentially setting a precedent was emphasized.

Councilor Chandler suggested collecting payment for the City Attorney fees at a minimum.

City Attorney Jeff Parker stated that the city could sell the easement and advised that it would be good to consider a policy for future easement processes. He explained that easements are usually set at half of the fair market value.

Councilor Wolfe stated that she is not in favor of essentially giving the land away for free.

Councilor Chandler noted that the city acquired the land because of a bankruptcy, which contributed to the encroachment issue, and that the city was not at fault for how the situation developed. She added that a \$10 filing fee is not sufficient given the circumstances.

Councilor Shada suggested exploring potential compromises, such as trading the easement services in exchange for access to nearby open space. Furthermore, he recommended that staff do more research and report back to the City Council with more information.

Mayor Graham echoed concerns about setting precedence and fair utilization of city resources. He added that he believes the city should be in a good position to recoup some of the expenses incurred in preparing the easement.

Councilor Wolfe requested city staff provide some basic information including, the amount the city paid to purchase the property, when the property was purchased by the city, and what the current value of the property is.

Councilor Chandler added to the information requested; to include the options discussed and the quoted dollar amounts for the work and expenses involved.

Applicant and property owner Jack Donn explained that the encroachment dates back to the original construction in 1964 and that they purchased the house in 1992. He noted that a survey was never conducted.

Councilor Shada moved to postpone the proposed easement for 122 Palisade Circle to July 15, 2025. The motion was seconded by Councilor Wolfe. The motion was carried unanimously (7-0).

City Administrator Denise Howell stated that she will review if a resolution or ordinance is needed to establish procedures and processes for easements.

2. Approval of Emergency Ordinance No. 0925, An Emergency Ordinance of the City of Manitou Springs, Colorado, Authorizing certain Energy and/or other Capital Improvements at the City Facilities; the Execution and Delivery of a Lease Agreement and an Escrow Agreement related to financing a portion of the costs thereof; ratifying Action previously taken concerning the referenced documents; declaring an Emergency; and providing for other matters relating thereto

Finance Director Rebecca Davis noted that the Energy Efficiency Projects had been discussed at previous meetings and explained that the ordinance presented pertains to a lease agreement with Huntington Bank to fund the projects. She stated that, as an emergency ordinance, it does not require a second reading or a public hearing, but it does require unanimous approval by the City Council. If approved, the ordinance will take effect immediately. Finance Director Davis explained that an emergency ordinance would allow staff to move forward with the contracts signed with Schneider Electric and maintain the same amounts previously quoted and agreed to. She added that the savings from the projects would pay for the lease.

There was a brief discussion regarding the timing of the ordinance, in which Finance Director Davis explained that the processes required had taken too long, and the contractor deadlines did not allow time for the ordinance to follow the standard ordinance procedure.

Mayor Graham commented that there appeared to be unexpected documentation requirements and procedural steps with the bank that affected the timeline. He acknowledged that the city understood the rates offered by Schneider Electric would remain fixed only until June 1, 2025, and expressed his support for the emergency ordinance under the circumstances, noting that it would save the city money.

Councilor Shada moved to adopt Emergency Ordinance No. 0925. An Emergency Ordinance of the City of Manitou Springs, Colorado, Authorizing certain Energy and/or other Capital Improvements at the City Facilities; the Execution and Delivery of a Lease Agreement and an Escrow Agreement related to financing a portion of the costs thereof; ratifying Action previously taken concerning the referenced documents; declaring an Emergency; and providing for other matters relating thereto. The motion was seconded by Councilor Wolfe. The Motion carried unanimously (7-0).

Note for the Record – the City Council took a break at 7:22 PM and reconvened at 7:38 PM.

3. Final Action on Mountain Metro's 2025 Fall Service

Jacob Matsen, Transit Planning and Operations Supervisor with Mountain Metropolitan Transit, presented the proposed routes and noted that the plans had been shared with the City Council at the previous two meetings. He stated that ridership data had been added as requested and outlined the recommended routes, including run times and stop frequencies for both weekdays and weekends. He explained that implementing the

recommended plan would require a third bus to operate the weekend peak season service from 6:00 AM to 5:00 PM, with stop frequencies every 10 minutes. He also presented an option to extend the current peak season, which currently runs from late April through late September, to begin in late March and end in late October. He shared that this extension would increase the city's share of the cost from \$205,000 to \$233,673 and added that with extended service, there would be an option to begin stopping at the Dillon Parking Lot starting November 1, 2025. Transit Planning and Operations Supervisor Matsen requested direction from the City Council on whether to extend Route 33 to the Dillon Mobility Hub, eliminate Route 36, and offer a fare free Route 3 through a shared cost agreement with Colorado Springs.

There was a brief discussion about Route 36, during which Transit Planning and Operations Supervisor Matsen confirmed that the current agreement keeps the bus service running through the end of September.

Councilor Shada shared that he conducted his own review of ridership data from the first four months of 2025 compared with 2024, which indicated a significant increase in ridership. He noted that this was an important indicator of fewer drivers in the city during the early months of the year.

City Administrator Howell advised that the stop at the Dillon Parking Lot would need to start in September because the Hiawatha Gardens location will be closed for six months, starting in September.

Councilor Chandler stated support for making Route 3 fare free and eliminating Route 36. She added that she believes that the data supports extending the season to reduce traffic and enhance city safety, and that the cost is justified. She stated that she is open to discussing an earlier start time if more Incline hikers begin at 5:00 AM.

Mayor Graham commented that he believes the proposed changes will have a positive impact on both visitors and residents. He stated that he is in favor of the extended peak season.

City Administrator Howell suggested a stop downtown going both directions both ways to allow riders to stop at the businesses along the way.

Councilor Wolfe stated that she is in favor of the extended bus service as well and noted that the City Council can always scale back later.

Lan Rao, Transit Division Manager with Mountain Metropolitan Transit, clarified that extending the peak season from late March to late October would also extend the Route 3 service at no additional cost, as the expense is calculated on an annual basis.

Mayor Pro Tem Johnson moved to approve adding a service stop at the Dillon Mobility Hub starting in late September, eliminating Route 36 bus service in 2026, extending the peak season from the last Sunday in March to the last Saturday in October, and launching fare free Route 3 service with the start of the 2026 peak season. The motion was seconded by Councilor Whetherhult. The motion was carried unanimously (7-0).

4. Consideration of Resolution No. 0825, A Resolution Adopting an Updated Universal Fee Schedule

City Administrator Howell advised that the fee schedule needs to be updated before the Memorial Day weekend and before the Dillon Parking Lot is opened in June. She shared that several areas, including the Hiawatha Gardens Parking Lot, are already set to start charging parking fees at 5:00 AM, and suggested aligning this timing citywide for consistency. Additionally, the Emergency Medical Services (EMS) fees were behind the standard by five percent and are being presented for an increase.

Parking Director John Crawford presented proposed fee schedule changes, including increasing Zone Three parking from \$2 to \$5 per day, setting a \$5 daily fee at the Dillon Parking Lot with a 5 AM start time, adding a \$0.40 convenience fee for phone payments, and establishing a discretionary special event rate of up to \$20 per day. He explained that the 5:00 AM start time could help encourage visitors not to encroach on the business areas.

Councilor Whetherhult expressed concerns that the proposed special event parking rate could increase costs for visitors and residents, potentially discouraging participation.

There was a general discussion about the proposed special event parking rate, including applicable events and users, during which Parking Director Crawford clarified that the rate would not apply to vendors and would be managed by the Mobility and Parking Department, with a rate set for each event up to, but not necessarily at, \$20 per day. He elaborated that the \$20 discretionary rate could have a greater impact in the economy parking areas, for example, and may encourage visitors to stay in the city longer.

Councilor Shada stated that he is not in favor of the suggested special event parking rate.

Mayor Pro Tem Johnson noted that for some the change in rate would cost less and for some it would cost more.

City Administrator Howell shared that other entities in the city are charging \$20, such as the Briarhurst Manor and the church and that this information contributed to the suggestion.

There was a brief discussion regarding the current rate for vendors during special events, during which City Administrator Howell confirmed that the current rate is \$0.50 an hour and explained that the rate did not fall under parking but is part of the Special Events Policy. She stated that staff could reevaluate the Special Events Policy and bring it back to the City Council to discuss the parking rate for vendors at a later date.

Parking Director Crawford commented that the city would see a greater benefit from a special event rate when there is turnover during events.

Councilor Chandler stated that she is not necessarily opposed to a discretionary special events rate, especially when there are businesses in the city charging \$20 a day.

Councilor Whetherhult reiterated concerns about increased parking rates during special events, adding that higher costs could lead consumers to limit spending at city businesses.

Mayor Graham noted that determining the appropriate parking rate can be a process of trial and error and suggested that giving staff the discretion to charge up to \$20 per day during special events would allow them to adapt as needed. He added that this approach supports an entrepreneurial spirit in managing parking resources effectively.

Councilor Fortuin stated that she believes people value predictability in parking rates rather than facing changes from event to event. She indicated she would need more analysis to consider the matter further.

Mayor Graham acknowledged that the summer season is approaching and noted that the Council appears hesitant to proceed with the proposal based on the information provided.

There was a brief discussion about the \$0.40 convenience fee, during which Parking Director Crawford explained that the city pays a vendor \$68,000 annually in fees for each transaction in which a credit card is not presented and recommended adding this fee to the transactions. He confirmed the fee does not apply to parking kiosk users, but to those paying by phone or Quick Response (QR) code.

Councilor Shada expressed concerns about the proposed change to begin on street parking charges at 5:00 AM and stated that he believes the shift would be too drastic.

Councilor Whetherhult stated that she does not support charging for downtown street parking at 5:00 AM, expressing concern that residents would have to wake up early to pay for parking. She added that most Incline hikers use the Hiawatha Gardens Parking Lot rather than parking on downtown streets.

Councilor Wolfe moved to approve the proposed EMS fee schedule changes as presented, with Basic Life Support Transport increased to \$1,811.25, Advanced Life Support Transport increased to \$2,146.20, and Advanced Life Support Transport-Level 2 increased to \$2,994.60. The motion was seconded by Councilor Fortuin. The motion was carried unanimously (7-0).

Councilor Whetherhult moved to approve the proposed mobile convenience fee of \$0.40 per transaction. The motion was seconded by Councilor Chandler. The motion was carried unanimously (7-0).

Mayor Graham stated that he is opposed to postponing the decision on the proposed special event parking rate, because the staff would have discretion to set the rate. He added that he has seen a range of parking rates during the summer months at the Iron Springs Chateau.

Councilor Wolfe moved to postpone the proposed special event parking rate indefinitely. The motion was seconded by Councilor Whetherhult. The motion was carried (5-2) with Mayor Graham and Councilor Chandler as the dissenting votes.

Councilor Shada moved to postpone the proposed change to start charging parking rates on the streets at 5:00 AM. The motion was seconded by Councilor Whetherhult. The motion was carried (6-1) with Mayor Graham as the dissenting vote.

Councilor Shada moved to approve changing the parking rate to \$5 a day for Zone Three, Economy Parking. The motion was seconded by Councilor Whetherhult. The motion was carried unanimously (7-0).

Councilor Shada moved to approve a \$5 a day parking rate for the Dillon Parking Lot. The motion was seconded by Councilor Whetherhult. The motion was carried unanimously (7-0).

5. First Reading of Ordinance No. 0825, an Ordinance Reducing the City's Special Tax on the Sale of Retail Marijuana and Retail Marijuana Products

Bill Conkling, 850 South Fillmore Street, Denver, CO 80209, Founder and Owner of Maggie's Farm, expressed concern about the growing number of recreational marijuana stores in Colorado Springs, where the tax rate is five percent lower than in Manitou Springs. He reported that Maggie's Farm has experienced a 30 percent decline in both traffic and revenue. Mr. Conkling urged the City Council to consider lowering Manitou Springs' tax rate to match Colorado Springs, stating that a more competitive rate would help stabilize customer flow and, in turn, support other local businesses.

Councilor Shada moved to approve on first reading Ordinance No. 0825, an Ordinance Reducing the City's Special Tax on the Sale of Retail Marijuana and Retail Marijuana Products and set a public hearing for June 3, 2025 at 6:00 PM. The motion was seconded by Councilor Whetherhult. The motion was carried unanimously (7-0).

J. HEARINGS

1. Second Reading and Public Hearing of Ordinance No. 0625, an Ordinance of the City of Manitou Springs, Colorado, Amending section 10.04.020(24) of the Manitou Springs Municipal Code to Reduce the Default Speed Limit on City Streets to 20 Miles Per Hour

City Attorney Parker explained that the ordinance language was reviewed and revised for clarity following discussion at the May 6, 2025, City Council meeting, specifically concerning the definitions of business and residential districts in the model traffic code. He noted that the updated version removes the need for those definitions in relation to speed limits and now states that the speed limit on all city streets, unless otherwise posted, is 20 miles per hour.

Mayor Graham opened the public hearing at 9:04 PM. Due to no public comment, Mayor Graham subsequently closed the public comment portion of the hearing.

There was a general discussion about posted signage and the process for updating speed limit signs. During the discussion, there was general consensus to add language

to the ordinance stating that any changes to posted signage must be approved by City Council.

Councilor Shada moved to adopt on second reading Ordinance No. 0625, an Ordinance of the City of Manitou Springs, Colorado, Amending section 10.04.020(24) of the Manitou Springs Municipal Code to Reduce the Default Speed Limit on City Streets to 20 Miles Per Hour, as amended with Section 1, Subsection B changed to “the speed posted on standard signs erected by the city, as approved by the City Council.” The motion was seconded by Councilor Wolfe. The motion was carried unanimously (7-0).

Councilor Wolfe moved to change the posted speed limit signs on all of El Paso Boulevard to 20 miles per hour. The motion was seconded by Councilor Chandler. The motion was carried unanimously (7-0).

2. Second Reading and Public Hearing of Ordinance No. 0725, An Ordinance Amending Title 2 with the Addition of a New Chapter 2.66 Concerning Elections

City Clerk Krebs confirmed that there were no changes to the ordinance since first reading on May 6, 2025.

Councilor Chandler stated that she is still not in favor of approving the ordinance for the same reasons previously discussed during first reading.

Mayor Graham opened the public hearing at 9:20 PM. Due to no public comment, Mayor Graham subsequently closed the public comment portion of the hearing.

Councilor Fortuin moved to adopt on second reading, Ordinance No. 0725, An Ordinance Amending Title 2 with the Addition of a New Chapter 2.66 Concerning Elections. The motion was seconded by Councilor Wolfe. The motion was carried (6-1) with Councilor Chandler as the dissenting vote.

K. RECEIVE OR ACT ON COUNCIL CORRESPONDENCE

Councilor Shada requested that the City Council consider a new downtown parking program for Manitou Avenue, similar to a Residential Parking Program, during a future City Council work session.

There was a discussion regarding resident parking on Manitou Avenue, during which Mayor Graham stated that the topic would be tentatively added to the June 10, 2025, City Council Work Session agenda for further discussion.

Councilor Chandler commented that the improvements to the Chase Bank property look great.

L. CITY ADMINISTRATOR REPORT

The City Administrator reported on the following:

- Manitou Avenue will be paved from Pawnee Avenue to Canon Avenue on Thursday, May 22, 2025.
- Sidewalk cleaning will be conducted throughout the week.
- Through the combined efforts of the community and city staff, the city successfully managed last week's water supply issue.

ADJORN

With no further business to discuss, Councilor Chandler moved to adjourn the meeting. The motion was seconded by Mayor Pro Tem Johnson. The motion was carried unanimously (7-0).
The meeting adjourned at 9:33 PM.

Attest:

John Graham, Mayor

Elena Krebs, City Clerk

If you need this document in an alternative format, such as large print, accessible PDF, or Braille, please contact the City Clerk's Office at cityclerk@manitouspringsco.gov or (719) 685-2554.



Memorandum

Title: Art on the Avenue 2025 Review and Authorization

From: Creative Alliance Manitou Springs

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

June 3, 2025

Purpose:

As established in the Memorandum of Understanding (MOU) between CRANE and the City, the Council is to review recommendations from CRANE for installing four new temporary public art pieces as Art on the Avenue for 2025.

Background:

CRANE vets and organizes ongoing displays of art in public places throughout the City for the enjoyment of residents and visitors alike. Some pieces are permanent, while others are rotated periodically to promote variety and artistic exposure. As established in the revised MOU, these proposals have been publicized by request for public feedback, none of which has been negative, with the next step being review by the City Council.

Pros and Cons:

N/A

Fiscal Impact:

Minimal, if any.

Workload Impact:

There may be some support needed by city staff for installation of one of the pieces.

Recommended Action:

Approve the CRANE recommendations as presented through approval of the Consent Calendar.

CRANE

Proposed Art on the Avenue Installations: June 2025



Farley McDonough, Chair
Ralph Routon, Vice Chair
Audrey Gray, Executive Director

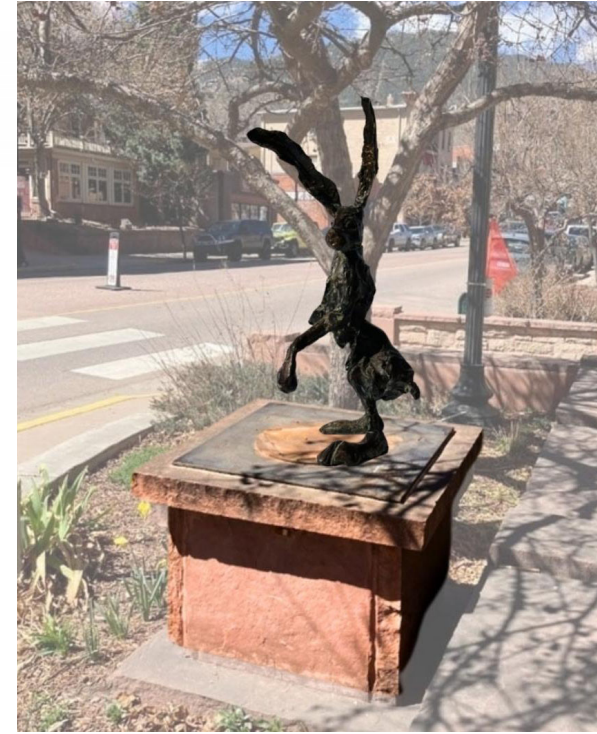
“Mr Hare” by Mark Dyke

Location: Pedestal at 718 Manitou Avenue (near Toasted Bistro)

Material: Bronze

Installation Details: This piece will be installed with assistance from local artist and welder Daniel Romano.

City Support: Reserved parking for artist and installer



“Mr Hare” 718 Manitou Ave, Manitou Springs, CO 80829

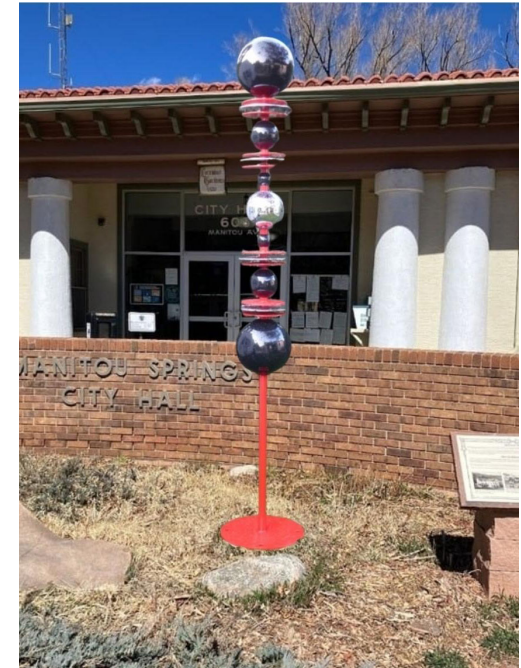
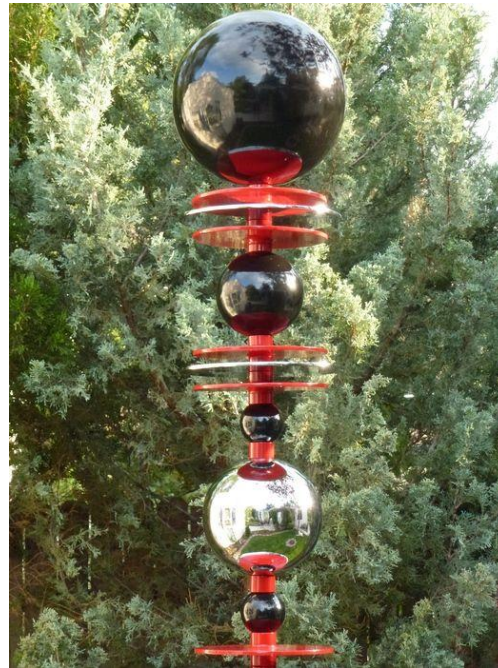
“My Mental Garden” by Sandy Friedman

Location: 606 Manitou Avenue in front of City Hall

Material: Powder Coated and Chromed Steel

Installation Details: This piece will be installed by the artist with assistance from local artist and welder Daniel Romano.

City Support: Reserved parking for artist and installer.



“My Mental Garden” 606 Manitou Ave, Manitou Springs, CO 80829

“Pink Cyclone” by Annette Coleman

Location: Empty Pedestal in Seven Minute Spring Park

Material: Steel, Plexiglass

Installation Details: This piece will be installed by the artist with assistance from Chris Rudnick

City Support: Reserved parking for artist and installer



“Pink Cyclone” Seven Minute Spring Park, El Paso Blvd, Manitou Springs, CO 80829

“Seeds in the Wind” by Jodie Bliss

Location: 484 Manitou Avenue,
between the bike rack and the bus
stop bench

Material: Hand forged Steel

Installation Details: This piece will
be installed by the artist with
assistance from Chris Rudnick

City Support: Reserved parking for
artist; we might need 15-30 minutes
of City support to lift 150 lb
sculpture into place



“Seeds in the Wind” 484 Manitou Avenue,, Manitou Springs, CO 80829

Public Feedback, Questions

- CRANE posted their choices for Art on the Avenue, along with a call for feedback from the public, on their Facebook page and Visit Manitou Springs' page, as well as sharing in the Living in 80829 and All About Manitou Springs Facebook groups. CRANE also posted on their Bluesky and Instagram pages.
- Any questions?
- Thank you!



Memorandum

Title: Community Wildfire Protection Plan Approval

From: Michael Willie, MSFD

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 15 Minutes

June 3, 2025

Purpose:

To obtain final approval and signatures for the updated Community Wildfire Protection Plan (CWPP).

Background:

Manitou Springs completed its original CWPP in 2019. These plans should be updated every five years to remain relevant and effective. The Fire Department contracted Root Forestry LLC to develop a revised and more comprehensive CWPP that reflects current wildfire risks and mitigation strategies for the community.

Pros and Cons:

Pros:

- Enhanced wildfire preparedness
- Improved access to grant funding
- Greater influence over wildfire management strategies
- Strengthened community partnerships and overall resilience

Cons: There are no significant drawbacks anticipated with the adoption of this plan.

Fiscal Impact:

\$4,000 for contractor services.

The CWPP positions Manitou Springs to be more competitive for state and federal wildfire mitigation funding opportunities.

Workload Impact:

While additional mitigation projects may be pursued as funding becomes available, the workload increase is expected to be minimal and manageable within current operational capacity.



Recommended Action:

Move to approve the updated Community Wildfire Protection Plan.

Community Wildfire Protection Plan Manitou Springs

**Developed By:
Root Forestry LLC.
In cooperation with
Manitou Springs
Fire Department
March 2025**



Acceptance

The Manitou Springs Community Wildfire Protection Plan (CWPP) was developed in accordance with the guidelines set forth by the Healthy Forests Restoration Act of 2003 and the Colorado State Forest Services' *Minimum Standards for CWPP's*.

This CWPP is a collaborative effort to guide our stewardship management activities, including wild-fire protection. The activities recommended in this plan are appropriate to meet our objectives and will the benefit natural resources and reduce the risk from wildland fire. This plan is voluntary, and where possible, we intend to apply the recommended practices, thus improving our community and increasing public safety.

The Manitou Springs Community Wildfire Protection Plan has been reviewed and approved by the Members of the CWPP Committee.

Recommended by:

Michael Willie, Chairman
Manitou Springs Fire Dept

Date

John Graham, Mayor
City of Manitou Springs

Date

Keith Buckmiller, Chief
Manitou Springs Fire Department

Date

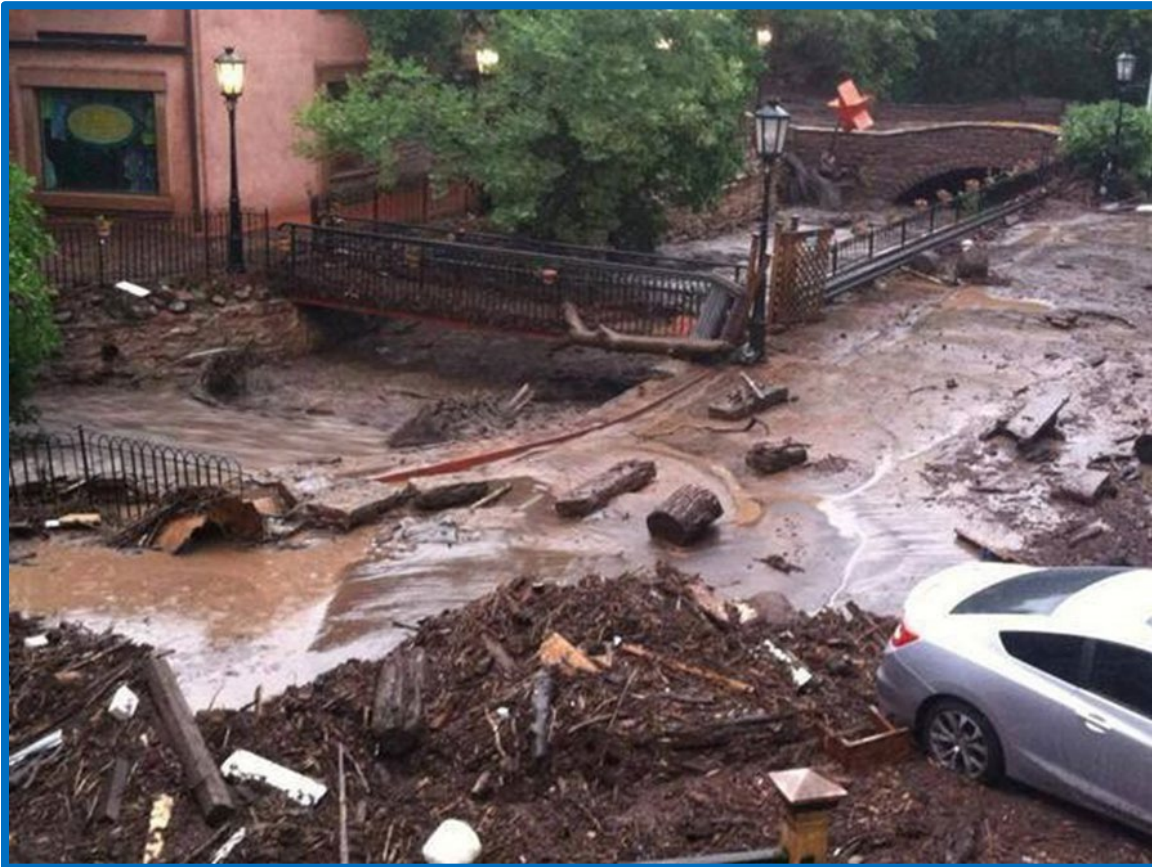
Michael Till, Supervisory Forester
Colorado State Forest Service

Date

Denise Howell, City Administrator
City Of Manitou Springs

Date

Preface



When the flames die and evacuees return home, wildfires are supposed to be over. The Waldo Canyon Fire never entered Manitou Springs yet post fire flooding devastated the city and cost millions of dollars in damage years after the fire was controlled.

Nor are “forest fires” supposed to burn urban communities. The town of Louisville is closer to downtown Denver than to the forest, yet the 2021 Marshall Fire devastated the town.

Wildfires far from a community can be devastating for years, and urban centers are not necessarily immune to wildfires. Those two events, and others like them, have influenced the updated Manitou Springs Community Wildfire Protection plan that follows.

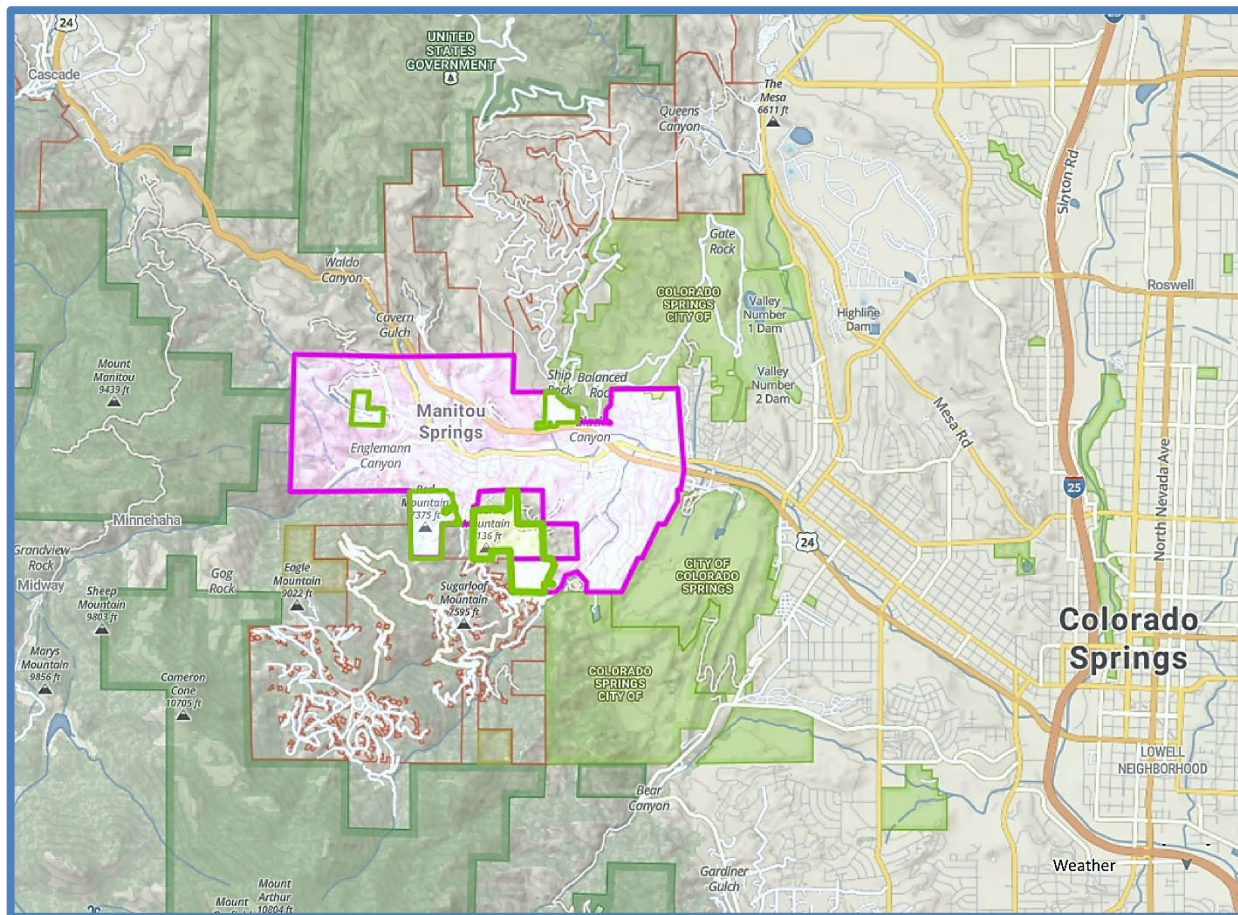
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I. COMMUNITY DESCRIPTION

LOCATION AND GENERAL DESCRIPTION

The City of Manitou Springs is located in the valley of Fountain Creek in western El Paso County. Since its founding in 1872, the city's economy has been based on tourism. Manitou is known for its mineral springs, unique charm and Victorian buildings. Tourists visit the many attractions in the city and patronize the shops and restaurants throughout the city. When wildfires burn and tourists stay away the city's economy suffers.



Manitou Springs location within the region.

Surrounding the city are large expanses of wildland fuels in various public and private ownerships. On the south is Crystal Park, a gated community with an active mitigation program. To the east is the City of Colorado Springs with a large area of wildland urban interface (WUI) and an active mitigation program

Further west are the communities of Cascade, Chipeta Park and Green Mountain Falls. Collectively known as Ute Pass, this area ranks as one of the most at-risk regions in the state. Manitou Springs adjoins the Pike National Forest to the west and northwest. In addition to its recreational uses, the National Forest contains watersheds for both Manitou Springs and Colorado Springs.

Manitou shares its wildfire risk with surrounding communities. What other communities do, or do not do, affects Manitou Springs just as actions taken by Manitou affect other communities. Mitigation is most effective when there are cooperative mitigation efforts in the region. At this writing there is no wildfire council or coordinating effort in the County.

Approximately 4,860 people reside in Manitou, mostly in homes upon narrow streets, built to accommodate buggies or model T Fords, that wind up and around the hills to serve the homes. Homes are close to one another, sometimes as close as three feet.

The uniqueness of Manitou also makes it vulnerable to wildfire. The wooden homes are vulnerable to windborne embers, and landscaping often makes homes more vulnerable. The narrow winding streets make evacuation or access by firefighters more difficult. Wildland fuel surrounds the city beyond the municipal boundaries.

GOALS OF THE CWPP

- 1: Protect the residents of Manitou Springs from wildfire by defensible space and structural hardening.**
- 2: Identify short-term and on-going wildfire risks to the neighborhoods of Manitou Springs.**
- 3: Create agreements with the USFS, CSFS, and Colorado Springs Utilities to mitigate lands that effect Manitou Springs Reservoir and watershed**
- 4: Implement Strategies to mitigate those risks.**

OBJECTIVES OF THE CWPP

- 1: Implement strategies to mitigate those risks**
- 2: Educate the community to become fire adaptive and reduce wildfire risk.**
- 3: Make sure the community has a heightened awareness of wildfire risk.**
- 4: Continue to mitigate Manitou Springs Open Spaces to provide healthier and more fire adaptive area.**

Lt. Mike Willie compiled the anticipated outcomes of the updated Manitou Springs Community Wildfire Protection Plan:

- "A community educated on wildfire risk and ways for neighborhoods and residents to become more fire adaptive.
- Reduced risk of wildfire to the community and firefighters of Manitou Springs.
- Reduced risk of wildfire to properties and businesses.
- Reduced risk of wildfire to Manitou reservoir and its watershed.
- Maintain a community that continues to flourish."

CRITICAL INFRASTRUCTURE

Critical infrastructure as used in this plan means the infrastructure that makes the city inhabitable, such as water, sewer, electricity, streets and public safety services. All are vulnerable to fire to some degree.

Electricity is provided by Colorado Springs Utilities (CSU) through power lines that cross areas of wildland fuels. Utility lines can also create risks of ignitions if the lines spark and ignite fires. CSU devotes a great deal of expense and effort to maintaining safe lines. CSU also operates two hydroelectric plants, one in Manitou Springs, the other at the top of Engelmann Canyon and the Ruxton Creek drainage in Pike National Forest. CSU maintains a right-of-way for overhead powerlines from Ruxton Park, the location of the upper hydroelectric plant, through Engelmann Canyon and across Manitou Springs' south side parallel to the Intemann Trail. Two underground large diameter raw water mains belonging to CSU also run the length of Manitou Springs from upper Ruxton Ave. through the downtown area.

Domestic water is provided by the city of Manitou Springs through a large network of reservoir, intake, storage tanks and pumping stations. In 2023, the 54 acres of city property surrounding the reservoir was mitigated. Pike National Forest and City of Colorado Springs, on their nearby watershed properties, are actively mitigating the surrounding forests for watershed protection. Much work has been completed, but full protection of the watersheds will take many years. Water infrastructure is particularly vulnerable to post wildfire flooding and debris flows.

Streets and highways are vulnerable to wildfire. If roads are

impassable, firefighters are not able to access neighborhoods and residents are not able to evacuate or return home after evacuations. A lesson of the Waldo Canyon fire is that post-fire flooding can block streets, depress business and interrupt normal life long after the fire is over.

Manitou Springs has a mild, semi-arid climate. It experiences summers with temperatures rarely rising above 86 degrees Fahrenheit and dry winters with temperatures rarely dropping below 20 degrees Fahrenheit. Precipitation is variable throughout the city averaging 18 to 20 inches of precipitation per year. Homes on the higher hills tend to receive more precipitation than those in the valley. Snowfall averages between 52 and 58 inches of snow.¹

WILDFIRE HISTORY

Wildfire has always been a present in local forests. Analysis of fire scars on living and down wood shows that forests burned on average every 15 to 30 years. Many of these were prescribed burns by Native American tribes who used fire as a forest management tool.



Long after the Waldo Canyon Fire was controlled, massive flooding from the burn scar and associated debris flows inundated downtown Manitou Springs, damaging streets, buildings and the local economy.

¹ Matt Meister, Chief Meteorologist for Fox 21 Television. Personal Communication.

Open forests were vital for Native American survival since game was easier to hunt, enemies had more difficulty mounting surprise attacks, and travel through open forests was easier. Before their removal to reservations, tribes burned the forest every 15 to 30 years, and the pre-settlement forests were shaped by burning over thousands of years. Over that time, the forest animals, plants and indigenous people became adapted to open forests.

In fact, the first recorded wildfire, known as the Big Burn, was set by Native Americans circa 1853. The story of the burn is attributed to a Native American who was in the area when Arapaho or Cheyenne ignited the fire on Cheyenne Mountain to force Utes from hunting grounds. High winds spread the fire along the southern Rampart Range and up the canyon of Fountain Creek. The fire burned to Wilkerson Pass, although some references say it crossed South Park to the present area of Breckenridge. Although the story of the fire's origin is anecdotal, maps compiled for the Plum Creek Forest Reserve (an antecedent of the Pike National Forest) in 1899 document the burn scar.

Forest management by prescribed burning ended with the arrival of European settlers and removal of Native Americans to reservations. For settlers, with homes, farms and ranches, wildfire was a threat to be eliminated. By 1910, the mission of the US Forest Service was to extinguish any wildfire by ten o'clock the next morning.

After removal of Native Americans, fires continued, ignited as lightning strikes or by humans. In 1894, another fire started in the Big Burn scar and burned around the flank of Pikes Peak towards Manitou Springs. Not until 2007 did another fire directly threaten Manitou Springs. The Manitou Incline Fire burned 30 acres and required air support to suppress.

There were many fires between 1894 and the Incline Fire. The policy of extinguishing all fires appeared to be successful and most were extinguished with no lasting notice from the public. By the 1980's, fuel that would have been eliminated by frequent prescribed burning accumulated, and fires became larger and more difficult to control. Add to that more and more individuals building homes in the high-risk wildfire environment and the cause of our present troubles are obvious.

Around 90% of all reported wildfires are still extinguished with no damage or little notice, but massive fires are more frequent. The Waldo Canyon Fire in 2012 caused a brief evacuation of the city and burned more than 300 homes in Mountain Shadows in Colorado Springs.

As a response to the growing threat of wildfire, Community Wildfire Protection Plans (CWPP) were authorized by Congress in the Healthy Forests Restoration

Act of 2003 (HFRA). The Act encourages communities to develop comprehensive wildfire protection plans through a collaborative process.

A particularly important item in the legislation permits communities to establish a Wildland Urban Interface (WUI) boundary. The WUI boundary is the area surrounding a community where a wildland fire would pose a threat to the community. HFRA directs the Departments of Interior and Agriculture to prioritize local community priorities in fuels reduction treatments within the boundary.

The HFRA emphasizes the need for federal agencies to collaborate with communities in developing hazardous fuels reduction projects, and places priority on treatment areas within the WUI boundary, municipal watersheds, and other local values at risk. HFRA requires agreement among local government (El Paso County in this case) the local fire departments and the Colorado State Forest Service. The CWPP also must be developed in consultation with interested parties and the applicable federal agency managing lands surrounding at-risk communities.

II. COMMUNITY ASSESSMENT

The lesson learned from the attempt to prevent wildfires is that preventing wildfires proved to be impossible. Fire is a natural part of ecosystems. If suppressing wildfires is impossible, the objective must be to return forests and the communities within them to their fire-adapted state. In a fire-adapted forest, fire plays its role of rejuvenating the ecosystem, but fuel loading and the forest structure reduces the risk of massive wildfires.

Achieving a fire-adaptive community is an approach that concentrates on plans and activities that reduce risk before a wildfire occurs. When a wildfire burns near populated areas of a fire-adapted community, it is low in density and can be controlled without loss of property. Such a community does not rely on government agencies, through fire suppression efforts, to protect it after a wildfire starts. In a fire-adapted community, the citizenry and its government have a combination or mixture of similar characteristics:

- The community exists within or adjacent to a fire-prone ecosystem and has a defined geographic boundary.
- Residents have the knowledge, skills and desire to properly prepare their homes before a wildfire threatens, prepare to evacuate and safely evacuate when necessary.
- Local fire suppression forces have adequate skills, equipment and capacity to manage wildfire.
- Residents and local fire agencies have met and understand the local fire suppression capability and related fire response expectations.
- Landowners are aware of hazardous fuels on their property and have taken action to mitigate the danger.
- Structures and landscaping are designed, constructed, retrofitted and maintained to an ignition-resistant standard.
- A CWPP is developed and implemented.
- The community has embraced the need for defensible space by reducing fuels and creating safety zones and maintaining both over the long term.
- The local government has effective land use planning and regulation, including building codes and local ordinances if applicable.
- Property owners understand their responsibilities before, during and after a wildfire.
- Public expectations are realistic and not based on reliance of government to provide all answers. Individuals accept personal responsibility for their property. The public understands firefighters cannot provide

protection for everyone affected during a wildfire; and understands it is dangerous for firefighters to attempt to protect a structure where owners have not taken appropriate measures to make it defensible.

A community with a desire to build a wildfire protection plan must recognize a significant difference between the terms “mitigation” and “fire adapted.”

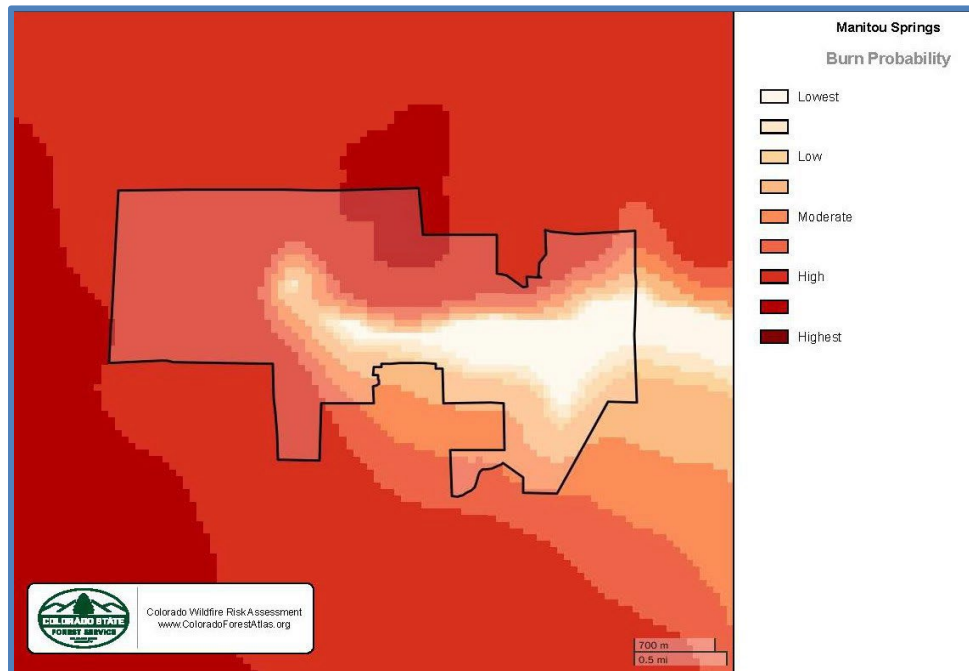
Mitigation efforts are smaller parts of the much wider mindset of being fire adapted. Actions such as fuels treatments, structural retrofitting, creating safety zones, establishing evacuation routes, cleaning gutters and trimming trees that directly contact houses are examples of mitigation actions. Becoming fire-adaptive involves creating a culture that maintains mitigation efforts and moves toward safe and effective response and resilient landscapes. Mitigation work can be viewed as a “checklist” of things to do. Being fire-adaptive is a commitment to a long-term, on-going effort moving toward a community that can live with fire.

WILDFIRE RISK

One can simply observe the significant risk of wildfire within and surrounding Manitou Springs, but observation does not quantify risk over a wide area. The Colorado Forest Atlas is a geographic information system developed by the Colorado State Forest Service. It provides a convenient means to quantify the degree of hazard. Using the Atlas allows one to see the risk across the entire landscape in a way that is not possible from direct observation.

The Forest Atlas provides an enormous amount of information pertaining to wildfire, and the maps and figures that follow are all from the Forest Atlas. The information from the atlas was confirmed by driving all the streets in the city and observing the conditions as they exist. Readers wishing to view the atlas can go to the website at: <https://coloradoforestatlas.org/apps>

The Forest Atlas rates various forms of risk based on wildland fuel, structure density and terrain. Ratings for the urbanized downtown area of the city usually show low risk owing to little wildland fuel. Readers should not misinterpret these ratings as no risk. Even in the downtown area structures are at risk to ignition from firebrands carried by winds from fires in the wildlands surrounding the city or burning structures within the city.

Burn Probability:

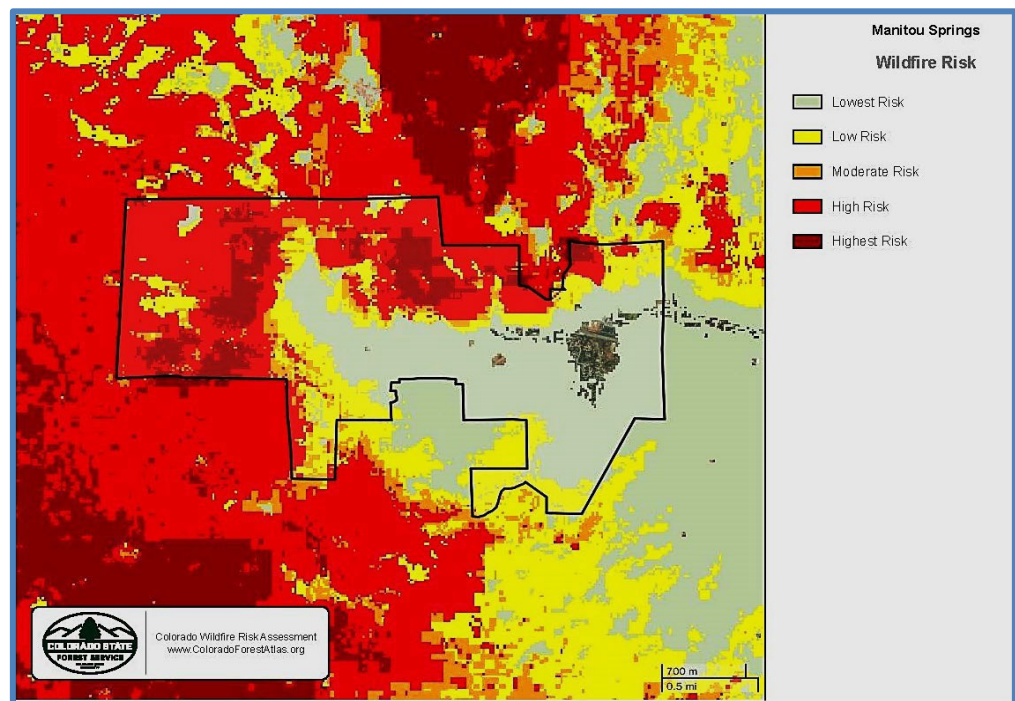
Burn probability represents the likelihood that a point will burn. The model assumes high or extreme fire weather conditions.

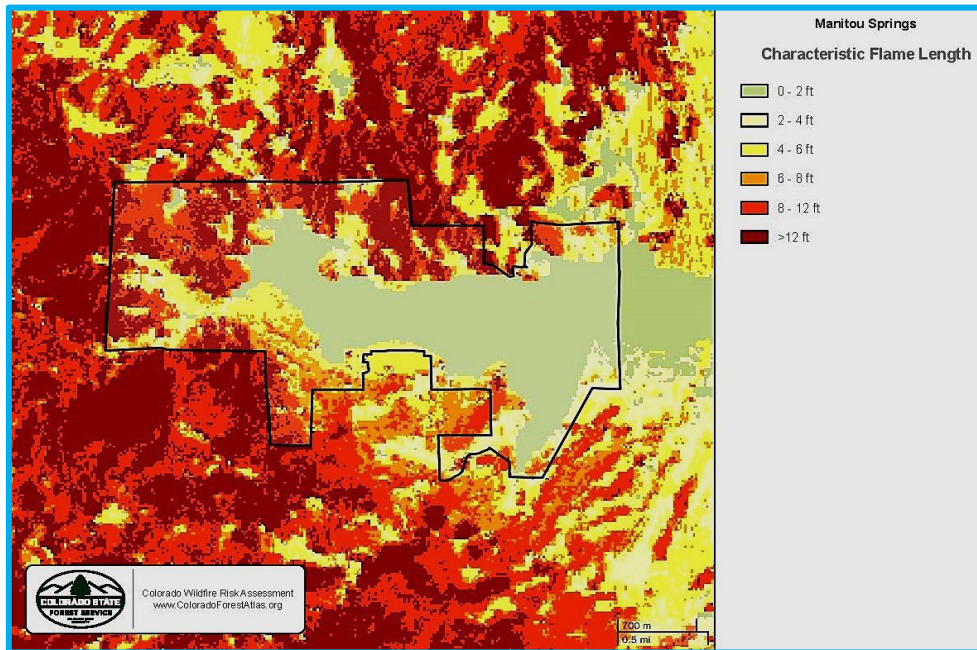
Seventy percent of the city has a moderate to high burn probability.

Wildfire Risk to Assets:

Wildfire risk is a composite map of housing density, forest assets, riparian assets and watershed protection.

The map represents the risk of wildfire to assets and is not the risk of a wildfire ignition. About 48% of the city is at a moderate to high risk.



Flame Length:

Flame length is directly correlated with the amount of heat any flame generates. Flame lengths greater than four feet produce lethal amounts of heat and cannot be directly attacked by firefighters.

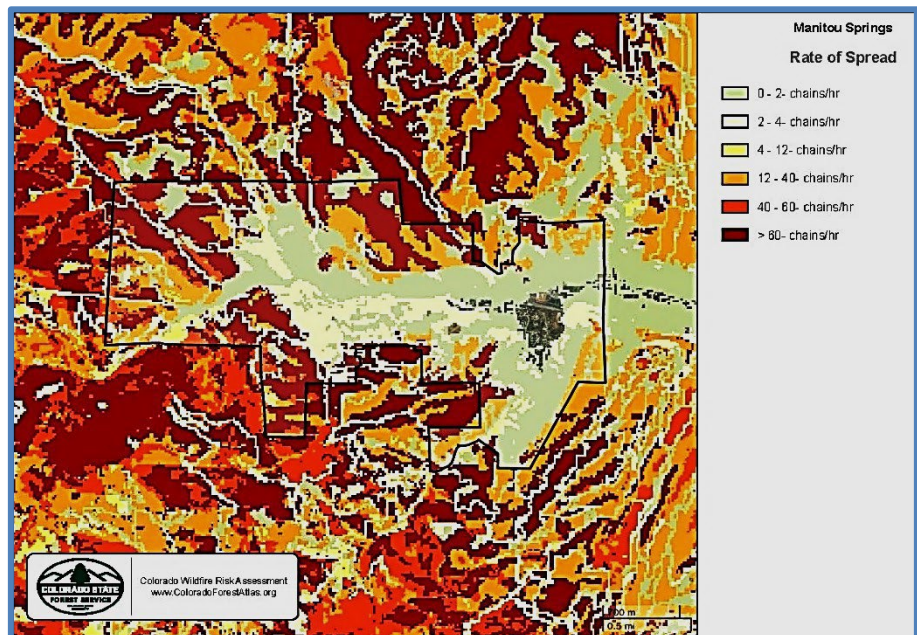
Flame lengths greater than four feet are expected in 45% of the city.

Rate of Wildfire Spread:

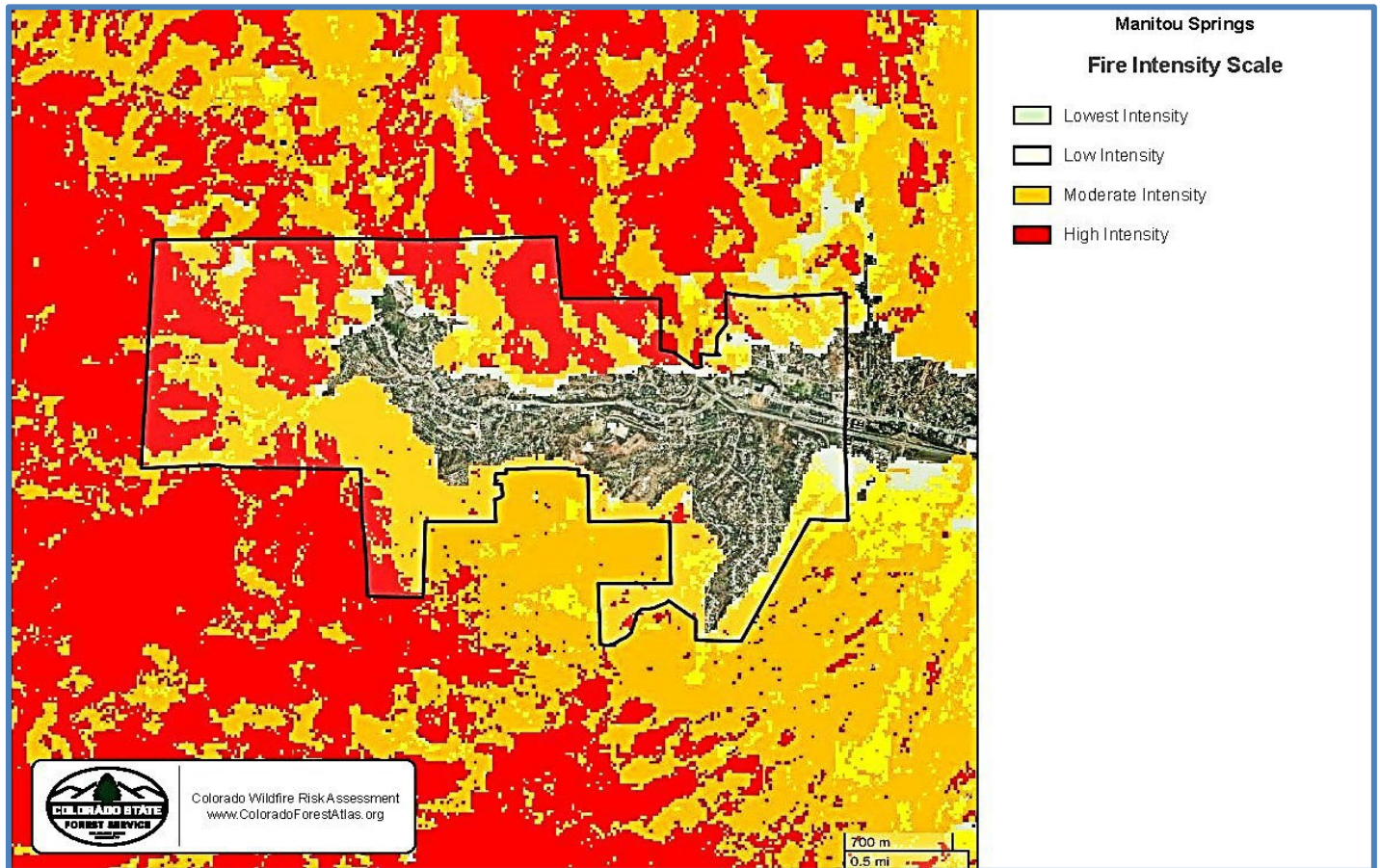
Rate of spread is how fast a wildfire moves across the landscape. Rate of Spread is commonly expressed in chains per hour. A chain is 66 feet.

A rate of spread of 12 chains per hour equals 792 feet per hour. An extreme rate of spread >60 chains per hour equals > 3,960 feet per hour or 0.75 miles per hour.

Spread rates greater than 12 chains per hour are predicted in 44% of the city.



Wildfire Intensity:



Wildfire Intensity is the most direct expression of wildfire behavior. The intensity levels used here are exponential increases. For example, a high intensity wildfire is ten times greater than a moderate intensity wildfire. Intensity descriptions from the Atlas are:

“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.

Low: Small flames, usually less than two feet long; small amount of very short-range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.

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.

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.”

EMERGENCY EVACUATION

This CWPP does not contain an evacuation plan. In the event of a fire, the police or sheriff will determine the best evacuation routes and procedures based on expected fire behavior. Residents should follow the evacuation instructions given by the authorities. Many city streets are steep, narrow and have blind curves. Even when a wildfire is threatening from a distance away and there is adequate time for an orderly evacuation, negotiating some of the streets could be difficult.

If a fire threatens the area, it is not necessary to wait for an evacuation order to leave.

If a fire should suddenly threaten a neighborhood, a rapid evacuation could be dangerous. Evacuations, even under the best of situations, are frightening events, and people do not always think clearly. Visibility may be reduced to near zero and fearful residents may not always behave in rational ways.

The fatalities in both the Waldo Canyon and Black Forest Fires were of residents who did not evacuate in time. If a fire is close to a neighborhood, the smartest thing a resident can do is to evacuate early before there is an evacuation order. The Fire Department conducts mock evacuations in neighborhoods. These are critical to help residents plan for a real emergency, and they help avoid some of the panic of an evacuation. If a fire threatens the area, it is not necessary to wait for an evacuation order to leave. If the danger does not materialize, it is easy to return.

In case of a fire or other emergency, the primary notification to evacuate will be issued by the El Paso County Sheriff by means of a reverse 911 call. Residents should follow directions provided in the recorded message. Other notifications may come from local TV and Radio stations. Reverse 911 calls are not automatically routed to cellular phones. To be certain of notifications, residents who rely on cellular phones should register their phones at:

<https://elpasoteller911.org/304/Peak-Alerts>

Smoke is also a serious concern, both from reduced visibility and as a health hazard. The U.S. Forest Service agency has a web page devoted to preparation and information for the health hazards of smoke at:

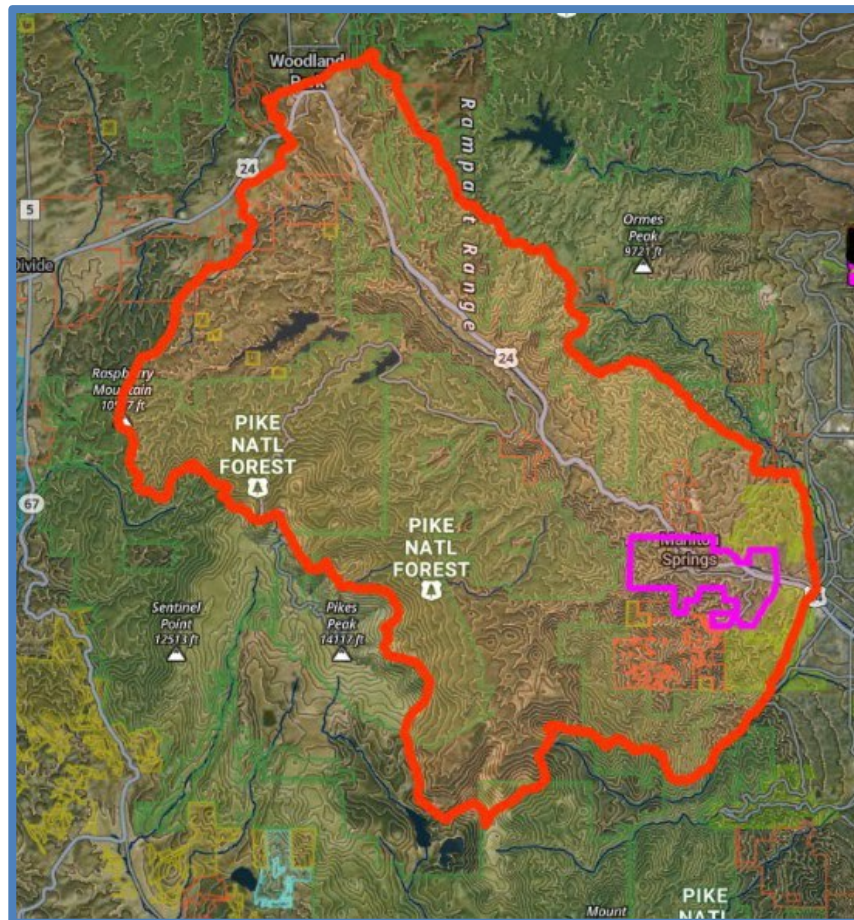
<https://wildfirerisk.org/reduce-risk/smoke-ready/>

WILDLAND URBAN INTERFACE BOUNDARY

The Healthy Forest Restoration Act allows communities to define the area outside the community where a wildfire would threaten the community. This wildland urban interface (WUI) boundary is by default one-half mile surrounding the community. Communities are permitted to define their own WUI boundary based on local conditions. The WUI boundary established for Manitou Springs goes far beyond the default one-half mile for several reasons:

- Embers commonly ignite spot fires a mile ahead of the main fire, and under extreme conditions, spot fires have been observed five miles ahead of the main fire.
- Fires also lead to flooding. The WUI boundary was established in consideration of post fire flooding as a primary threat to the city. The boundary includes the watersheds of Sutherland, Ruxton and Fountain Creeks.

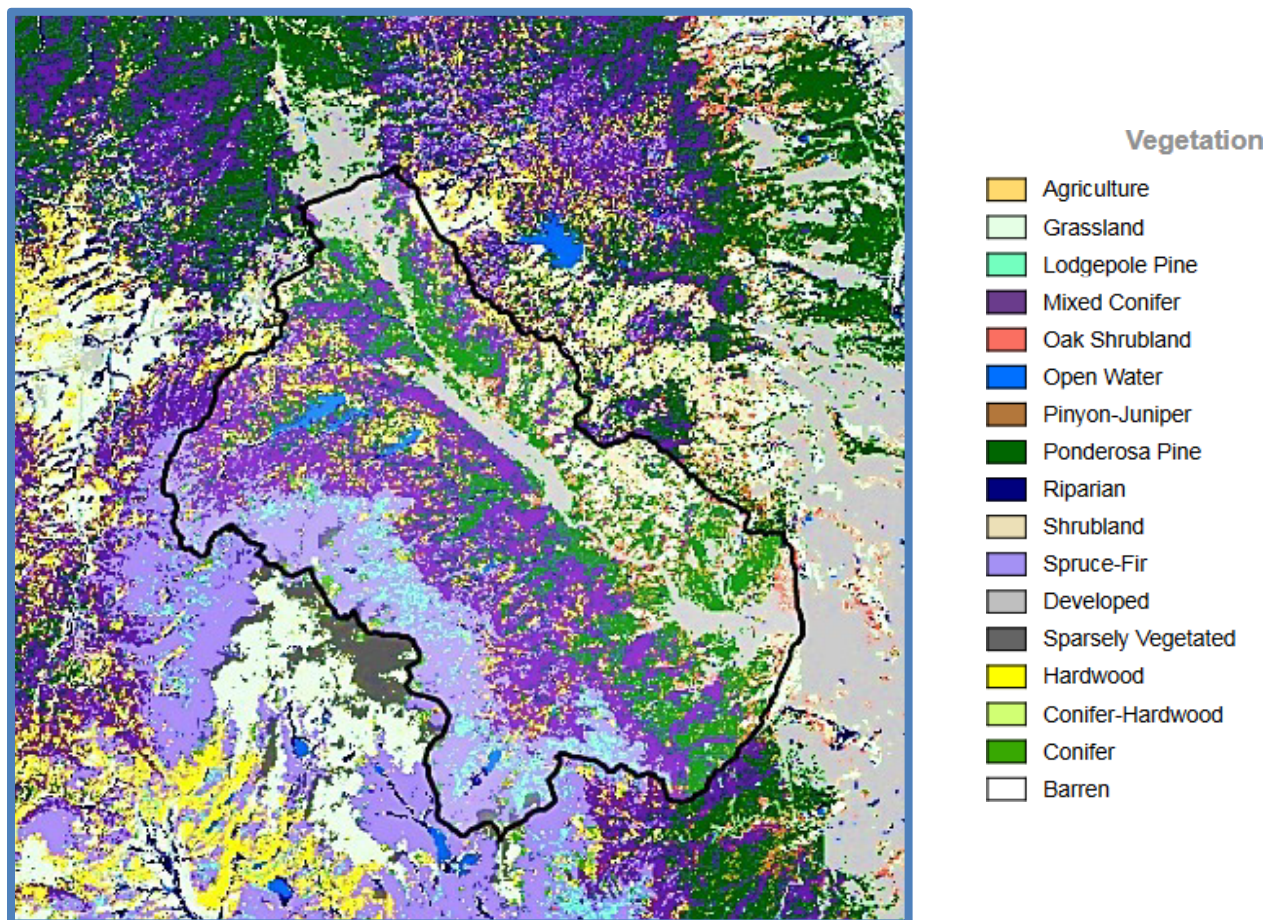
Given the large area covered, vegetation is dominated by a variety of forest types.



The Wildland Urban Interface Boundary is shown in red on the map above. The size of the boundary includes all the watersheds surrounding the city, shown in purple on the map.

The map below is the Forest Atlas Forest type map for the WUI Boundary. Generally, spruce and fir dominate in higher elevations while mixed conifer and ponderosa pine dominate the lower elevations.

Fire regimes are different between the forest types. The lower elevation mixed conifer and ponderosa pine have the typical frequent fire, low intensity burn regime that has been mentioned previously. These areas are those with the unnatural buildup of fuel resulting from wildfire suppression. Spruce and fir in higher elevations typically have an infrequent stand replacing fire regime. Fire return intervals may be 300 years in this forest type.



PREPAREDNESS TO RESPOND

The Manitou Springs Fire Department was created in 1879 as the William A. Bell Hose, Hook and Ladder Company. Initially, the fire department was all-volunteer.

On average, Manitou Springs Fire Department has 35-40 volunteer firefighters and six full-time firefighters and six full-time staff for the ambulance that operate out of one fire station located at 620 Manitou Ave. The Manitou Springs Fire Department has the following response apparatuses for Wildland responses:

- Engine 1010: Type 1 Short wheelbase engine for response on narrow streets and tight turns of Manitou streets.
 - Engine 1011: Type 1 short wheelbase engine.
 - Brush 1041: Type 6 for wildland firefighting.
 - 2 Honda dirt bikes for response on trails and remote areas.
 - UTV 1053: for off-road responses and rescues.
 - Ambulances 1080 and 1081.
-
- Two Type 1 Engines (Class A)
 - One Type 6 Wildland/Brush truck
 - One two seat UTV
 - Two Motorcycles
 - One SUV Utility

With only three firefighting apparatus and a staff based on volunteer response, it would be unreasonable to expect that the Manitou Springs Fire Department would be able to place a fire apparatus and firefighters in front of every house during a major fire event. To enhance response capabilities, The City and the Manitou Springs Fire Department have mutual aid agreements in place with local municipal, county, state and federal fire agencies. Mutual aid fire response is based on resource availability.

The Manitou Springs Fire Department is an *All-Hazard* agency. Members of the Manitou Springs Fire Department are each trained and certified by the Colorado Division of Fire Safety to Firefighter I and II levels with Hazardous Material Awareness and Operations. Additionally, firefighters are offered opportunities to obtain certification as Emergency Medical Technicians, High Angle Rescue Technicians and Wildland Firefighters.

All members of the Manitou Springs Fire Department receive basic wildland

firefighting training. On average, 25 firefighters hold national wildfire credentials per the National Wildfire Coordinating Group. These individuals are monitored by the State of Colorado for competency and maintained in a database as potential national resources.

III Risk of Ignition and Wildfire Occurrence

The overall risk to the community from wildland fire is high. This section will discuss the factors considered that led to the overall rating. As the analysis in Chapter Two illustrated, the forest surrounding Manitou Springs have a high risk of wildfire. Manitou Springs' primary hazard is not fires burning in the distant wildland, but that firebrands from wildfires may ignite structures within the city leading to a Mountain Shadows type urban conflagration.

Manitou Springs' primary hazard is not fires burning in the distant wildland, but that firebrands may ignite structures within the city leading to an urban conflagration.

Reconstruction of fire history and forest dynamics in the neighboring upper South Platte landscape reveal (i) an average fire interval of about fifty years during the period 1300-1880, but no major fires between 1880 and 2002; (ii) a mix of non-lethal surface fire and lethal, stand-replacing fire in the historic burns (mixed severity fire regime); and (iii) a striking increase in forest density from 1900-2002.

The extent of the high-severity Hayman burn in 2002 was unprecedented in the last 700 years, in part because of the dense forest conditions that had developed during the twentieth century, and in part because of the extreme drought and fire weather conditions that existed in 2002. Similar drought conditions contributed to the Waldo Canyon fire a decade later.

CAUSES OF WILDFIRE IGNITIONS

Low fuel moisture and relative humidity are common in the area, as are periods of high winds. When dry and windy conditions coincide, the stage is set for large wildfires. Human population is increasing, and all recent large, destructive, fires were human caused. Numerous fires are ignited each year by lightning. Except for portions of Florida, this area has some of the highest occurrence of lightning in the continental US.

Fires originating in or near communities are the most immediate concern, but fires starting well beyond the boundaries of the planning area can have profound effects upon the communities. Rapid rates of spread and long-distance spotting are the norms for fires in the vicinity. Areas classified as high to moderate fuel loading are the most worrisome.

FUEL HAZARDS

Fire Behavior at any time is dependent on three factors: weather, topography and fuels.

WEATHER: Weather influences fire behavior as both a long term and transient phenomenon. Long term weather trends such as extended drought increase the possibility of ignition and increase the rate of fire spread.

Large plants, trees and larger shrubs recover moisture content slowly after a prolonged drought and may remain drier than normal for several years after a drought ends. Grass and herbaceous fuels may recover moisture quickly after a short rain but also lose moisture quickly after short dry periods. Grass may be able to burn in only a few hours after rain.

The intensity and spread of a wildfire is affected by the weather conditions existing at the moment. For example, a large thunderstorm about 20 miles north of the Waldo Canyon Fire was responsible for pushing the fire downslope into the Mountain Shadows neighborhood. High temperatures, low humidity, and strong winds increase the probability of ignition, intensity and rate of spread. Wind direction at any given moment is the primary determinant for the direction of fire spread.

TOPOGRAPHY: Topography includes the steepness and the shape of the terrain. Hot gases rise in front of the fire along the slope face, pre-heating the vegetation above a fire. As slope increases the effect of the preheating and increased spread increases, and fires may move up slopes four times faster with flames twice as long than a fire on level ground.

Drainages act as chimneys that funnel heat and wind up the drainage. Homes in drainages, or at the tops of drainages, are particularly vulnerable to wildfires. The direction a slope faces, or its aspect, also influences fire behavior. South and west facing slopes tend to be drier and thus exhibit more intense fire behavior than moister east and north facing slopes.

FUELS: The two fuel types in a WUI are vegetative and structural. Vegetative fuels consist of living and dead trees, bushes, and grass. Typically, grasses

ignite more easily and burn more quickly but with less intensity than trees. Fires can move quickly through grass and herbaceous vegetation, and these smaller fuels are often the kindling that moves fires to larger size fuels.

Many homes are lost because of the landscaping around the structure.

Any dead or living branches on the lower eight feet of trees or shrubs underneath trees are called ladder fuels. Ladder fuels help convert a ground fire to a crown fire (fire in the treetops) that moves much faster and with more intensity.

In urban areas, homes and other structures are fuel. Non-vegetation fuels include houses, ancillary buildings, fences, and firewood piles. In fact, a burning structure can ignite a wildfire, and defensible space can prevent a burning structure from spreading fire to the surrounding vegetation or to a neighboring home.

Hazardous fuels around a home are not limited to natural vegetation. Landscaping is often a fire hazard. During wildfires, many homes are lost because of the landscaping around the structure. Juniper (Pfizer) shrubs planted near foundations, landscape timbers, wood mulches and wood fences are frequent causes of home ignitions. Landscapes should be planned with the threat of wildfire in mind.

The important point to remember here is that neither typography nor weather can be altered. *Only fuels can be manipulated before a wildfire to reduce fire intensity or influence the fire spread.*

IV HOME CONSTRUCTION AND VULNERABILITY TO WILDFIRE:

HOW STRUCTURES CATCH FIRE

There are three ways that a wildfire can transfer itself from natural vegetation, or burning homes, to other homes. They are through radiation, convection, and firebrands.

RADIATION: Wildfires can spread to a home by radiating heat in the same way a radiator heats rooms in the wintertime. Radiated heat can ignite combustible materials from a distance of 100 feet.

CONVECTION: Direct contact with flames, or the wildfire's convective heat column—the hot air and gasses rising from the flames--may also ignite a home. This will most likely occur when trees or brush near a structure ignite, and the flames touch a flammable part of the structure.



The unburned trees in the background show that this home, burned in the Black Forest Fire, was not engulfed by flames. Rather windborne firebrands ignited the home.

FIREBRANDS: Many homes in Manitou Springs are particularly vulnerable to firebrands. Firebrands are burning materials that detach from a fire during strong convection drafts in the burning zone. In most cases, the flame front passes quickly, but a shower of embers, or firebrands, impinges on the structure for some time before and after the flame front passes. Firebrands are most often the cause of home loss. Firebrands can be carried long distances – more than a mile – by the winds associated with a wildfire.

A 2006 report by Traci Weaver emphasized the danger of home ignitions from embers.¹ Multiple wildfires raged across prairie and shrub land in North Central Texas from Dec. 27, 2005, to April 30, 2006. They killed 17 people, burned 1.6 million acres, and destroyed 440 homes. Many of the destroyed homes were made of brick, stone, and had metal roofs. Investigators pinpointed the main cause of home destruction to embers that fell on top of, or were blown under, wooden porches without screening. Other losses were linked to firebrands entering attic vents, eaves and soffits, or radiant heat of burning grass that ignited wood decks.

The 2002 Hayman Fire burned 138,000 acres and 132 homes in 20 days. After Hayman, the homes burned were thoroughly studied to determine the manner in which they were burned. USDA Forest Service scientists Jack Cohen and Rick Stratton reported on the causes of home destruction in the *Hayman Fire Case Study*.² Surprisingly, 662 homes within the parameter of the fire were not destroyed. Many of the homes that survived did so without intervention by firefighters. The study objective was to determine if there were common factors among these surviving homes that might be helpful in preventing loss of homes.

"Torching or intense crown fires within 30 feet of a structure destroyed 70 homes. If a house was destroyed but the surrounding trees did not burn, they assumed that embers or firebrands ignited it. They concluded that 62 (47%) of the 132 homes destroyed in the Hayman Fire were ignited by surface fires or firebrands.

Cohen and Stratton found that home destruction was related more to a house and its site-specific surroundings than to the context of the larger Hayman Fire. If the vegetation around a house allowed high intensity fires to burn near them, they did not survive. If the vegetation permitted only low intensity fires, the structures had a good probability of surviving. Flammability of roofs, siding materials, and other house construction features raised or lowered the risk of flames igniting homes.

There are 2,329 Homes in a forested Wildland/Urban Interface in Manitou Springs. When business and outbuildings are added, the total number of structures is 2,663. Homes in Manitou Springs have various risks of being destroyed by a wildfire. The amount of risk depends on the vegetative fuels, topography, weather, and the construction and landscaping of the home itself. It is important to understand these conditions and factors to make appropriate decisions about vegetative fuels reductions.

¹ Weaver, Traci, (2006): *Texas Fires Shed New Light on What it Meant to be Firesafe*. Texas Forest Service.

² Graham, Russell T., (2003): *Hayman Fire Case Study*. USDA Rock Mountain Research Station, Report RMRS-CTR-114.

The construction materials, location and even the shape of a structure influence its vulnerability to wildfire.³ It is not the intent of this CWPP to suggest extensive alterations to homes that already exist in the community. Understanding how home construction affects the vulnerability of the structure to a wildfire helps residents plan defensible space projects to compensate for construction differences. When remodeling or home improvement projects are done, plans can be made to reduce the ignitability of the buildings.

Decks and roofs are the most vulnerable parts of a structure. If either burns, the home will be lost. They are most likely to catch windblown firebrands, and air currents are more likely to form eddies that trap heat and in the irregular surfaces found in roofs and decks.

Fire resistant roofs are extremely important. Roof material with a class A rating indicates the best resistance to fire. Many roofing materials are available to homeowners, but they vary in cost, weight and longevity. Homeowners should consult with a reputable building contractor to determine which roofing material will best suit their needs.

Most homes in Manitou Springs have Class A roofing that is resistant to ignitions. Even the most fire-resistant roofs require maintenance. The most important item is to keep the roof—and gutters—free of debris. Combustible debris such as leaves, and pine needles may ignite from firebrands and start the home on fire even with a class A roof. Combustible litter is most likely to accumulate in areas where one shape meets another such as gables and dormer windows. These same areas are most likely to accumulate firebrands because of eddies in wind currents during a wildfire. Combustible debris should be removed anytime it accumulates.

However, home autopsies have shown that the small ridges in metal roofs are openings where fire brands may collect directly on the plywood sub roof. The holes underneath such ridges should be plugged with caulking or a similar material. Tile roofs have similar vulnerabilities if the openings under the tiles are not plugged with tiles commonly called bird blockers.

The eaves (the extension of the roof over the outside wall) are also vulnerable areas. Open eaves, with the roof joists exposed, are particularly vulnerable because the irregular surfaces can trap hot gases and fire brands. Enclosure of exposed eaves (called a soffit) helps prevent this. It is best to construct soffits so that the inner edge of the soffit meets the wall at a 90° angle. This reduces the amount of heated air and fire brands that might be trapped.

³ Slack, Peter, (2000): *Firewise Construction: Design and Materials*. Colorado State Forest Service.

Vents, in roofs and foundations, are also areas of vulnerability, but are necessary to ventilate attics and crawl spaces to prevent moisture accumulation. During a wildfire, heated gases and firebrands can enter attics or crawl spaces through vents. All vents should be screened with metal screening with openings of 1/8 inch or less. Soffit vents should be located as close to the edge of the eave as possible. Vegetation around foundation vents can create unintended vulnerability, particularly on the downhill side. Landscaping with noncombustible mulch within three to five feet of the foundation and underneath decks or porches is essential.

In addition to the roof, decks are extremely vulnerable to fire. The deck surface is exposed to fire brands and fire brands can collect underneath decks. Possibly the worst mistake any homeowner can make is to store any combustible material beneath a deck. Countless homes have been lost because of firewood, scrap lumber, even gasoline stored beneath a deck. Even motorized equipment, when left under a deck, with gas in the tank has caused home losses during fires.



The underside of decks should be enclosed with a non-combustible material. If that is not possible, covering the area under a

If a deck burns, the home will burn with it. Keep the underside of decks clear of any combustible material.

deck with stone, concrete or rock mulch will make the deck safer. When decks are rebuilt use fire resistant materials.

Deck furniture should be made of noncombustible materials. Metal rather than wood for example.

Fire resistance of windows and doors should be considered. If the window glass breaks, firebrands will enter the house. The most fire-resistant glass is low emissivity, tempered glass which withstands the heat of a fire for the longest period. Double pane windows last longer than single pane when exposed to the heat of a fire. Triple pane windows with low emissivity glass offer the best protection, but at the highest price.

Window frames are also important. Metal frames offer the best protection. Vinyl frames usually do not burn but can melt when exposed to heat. Wooden frames will burn. Metal screening with on the outside of windows offers additional protection, but most windows are sold with nylon screening that will melt. Solid metal shutters offer the best protection, assuming the homeowner can close them before evacuating.

Wooden doors are obviously able to burn during a fire. The thicker the door the more resistant it will be. Metal doors are far superior, and glass in doors is subject to the same vulnerabilities as window glass. Well maintained weather stripping in outside doors will help prevent fire brands from entering a home.

Further information about increasing the survivability of structures is found on the CSFS website at:

<http://csfs.colostate.edu/pages/pub-csfs2.html#wildfire>

REQUIREMENTS FOR NEW CONSTRUCTION:

The City of Manitou Springs adopted Natural hazards Standards that apply to new builds, expansions, subdividing, etc. It requires the Manitou Springs Fire Department to do a wildfire site assessment and standards for the resident to follow:

The Planning Director shall have the authority to modify the wildfire mitigation standards in this section based on Fire Department recommendation, or through the alternative compliance procedure for landscaping plans in section 18.72.070E.

- The standards in this subsection establish minimum regulations for reducing the risk of loss of life or property from wildfire by:
 - Establishing a natural or man-made area where vegetation capable of carrying a fire has been sufficiently treated, modified, or removed to slow the rate of spread and reduce the intensity of a fire.
 - Providing a safe fire suppression operation; and
 - Slowing or preventing a fire from traveling in either direction between a structure and vegetation.
- The wildfire hazard standards in this section shall apply to any of the following activities or scenarios.
 - An application for Major or Minor Development Plan.
 - An application for a Major or minor Subdivision; or
 - Any required building permit or property improvement permit for habitable or commercial structure, an addition of any size to a

habitable or commercial structure, or garage.

- The applicant shall mitigate wildfire hazards to applicable structures through landscaping and maintenance to the maximum extent practicable by:
 - Maintaining a fire (5)-foot perimeter zone that contains only non-organic mulch and non-vegetative landscaping materials around structures.
 - Providing and maintaining a ten (10)-foot primary defensible space area, where vegetation capable of carrying fire has been treated, modified, or removed to slow the rate of spread and reduce the intensity of a fire.
 - Providing and maintaining a secondary thirty (30)-foot defensible space area within the lot on all sides of the structures where:
 - A minimum separation of ten feet is provided between the edges of tree canopies, (or clusters of tree canopies), measured at maturity.
 - Vegetation and tree canopies maintain a minimum clearance of ten (10) feet from any building.
 - Branches within six (6) to ten (10) feet above the ground are removed from trees taller than twenty (20)-feet in height.
 - Low-hanging branches at less than one-third (1/3) of the tree's height are removed from trees that are less than twenty (20) feet in height.
 - Potential fire hazards such as insect infested, diseased, and dead trees and limbs are removed.
 - Planting vegetation in clusters is encouraged, with spacing between clusters of ten (10)-feet, or one and one-half (1 ½)-times the height of vegetation, whichever is greater.
 - Vegetation shall be maintained, including keeping limbs trimmed, removing surface and ladder fuels, and removing vegetative debris from the ground.
 - Whenever the standards in section 18.10.070 conflict with landscaping standards elsewhere in this code, the standards in section 18.10.070 shall apply.

OPEN BURNING

Open burning is regulated within the Manitou Springs city limits. Open fires and open burning within the city limits must conform to the following regulations:

- A safety area of 10 feet from the open fire shall be free of flammable vegetation or mowed to a very low height.
- The open fire shall be no less than 15 feet from other combustion sources, including but not limited to residences, barns, sheds, wooden

fences, and similar structures.

- All fireplaces and pits shall be fitted with an appropriately sized and fitted Spark/Ember Arrestor.
- The total fuel area may not be greater than 3 feet in diameter and shall have a flame height of less than 2 feet.
- A means of extinguishing the fire shall be available and ready to deploy. These means shall include at a minimum:
 - a portable fire extinguisher at least a 51b type A rating; or
 - a water hose with sprayer attachment; or
 - a 5-gallon bucket of water and shovel.
- All open fires shall be attended by a person at least 18 years of age who has a phone immediately available to call 911 and who is capable of using the means of extinguishing the fire.
- No refuse or yard debris may be burned.

In addition, authorities may impose fire restrictions when they feel that the threat of wildfire is so severe that burning must be restricted. Fire restrictions are Stage One or Stage Two depending on the burning conditions. What is allowed or prohibited under each type of restriction is often confusing to the public, and the various types of restrictions are:

Stage 1 FIRE Restrictions:

1. Open Burning Ban, defined as the prohibited use of any outside fire, including campfires and warming fires.
 - This current ban excludes fires in permanently constructed fire rings within the city's RV and Camping Parks; charcoal grills and smokers, and wood burning fireplaces, (chiminea) or fire pits with proper fitting screen covers and with a minimum of 15' separation from structures or other combustible material at private residences. None of these exclusions permit a total fuel area greater than 3 feet in diameter, and all must have a flame height of less than 2 feet.
2. Outdoor Smoking Ban, defined as the prohibited use of any tobacco product or similar material in cigarettes, cigars, or pipes outdoors. This excludes smoking in enclosed buildings or structures, and along Manitou Avenue. Discarding of a lighted cigarette, cigar or pipe tobacco product is strictly prohibited.

These restrictions do not apply to gas-fueled grills used out-of-doors, or to fires within liquid-fueled or gas-fueled stoves. Additionally, compliant fireplaces and wood-burning stoves within private residences are not included.

Stage 2 Fire restrictions:

1. Open Burning Ban, defined as the prohibited use of any outside fire. This includes all campfires and warming fires, all solid fuel burning fireplaces (e.g. fire pits, fire tables, and chimineas) and cooking appliances (e.g. charcoal BBQ grills, pellet smokers and BBQ grills).
 - This ban excludes Liquid Propane (LP) fueled or gas fueled open flame cooking devices, (e.g. LP BBQ grills or camping stoves) with a 10' separation from combustible materials, (clearance not applicable to single-family homes). Additionally, this ban does not apply to compliant fireplaces and wood-burning stoves within private residences.
2. Outdoor Smoking Ban, defined as the prohibited use of any tobacco product or similar material in cigarettes, cigars, or pipes outdoors. This excludes smoking in enclosed buildings or structures, and along Manitou Avenue. Discarding lighted cigarettes, cigar or pipe tobacco products is strictly prohibited.
3. Prohibited Sale and Use of Fireworks and explosives, defined as sale of any and all types of fireworks, and use of any explosives not limited to fireworks, fuses or blasting caps and rockets.
4. Dangerous Equipment Use, defined as the use or operation of any equipment outdoors that emits sparks (e.g. grinder, chain saw) or open flame (e.g. welding or operating an acetylene or other torch) without a chemical pressurized fire extinguisher equal to or exceeding a rating of 2A 10BC readily available to the operator.

A Red Flag warning is issued by the National Weather Service when low humidity and strong winds combine to produce increased risk of fire danger. These conditions are independent of antecedent weather, fuel types and fuel moisture for the region.

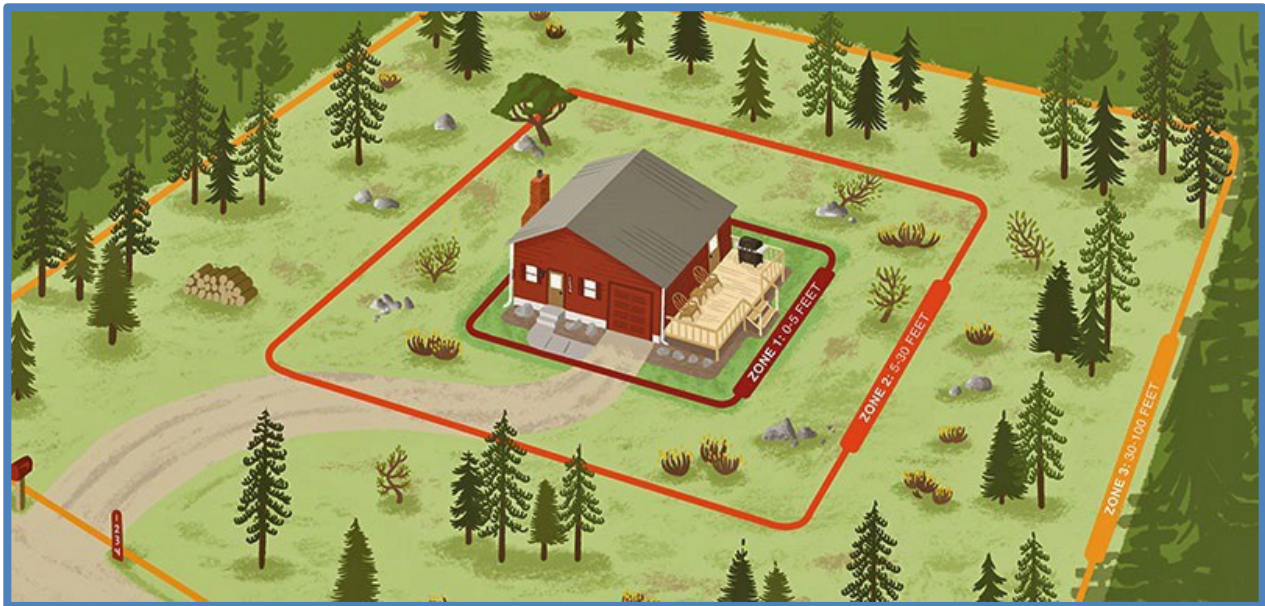
Whenever there is a Red Flag Warning in effect for Manitou Springs, Stage 2 fire restrictions are automatically enacted for the same period of time as the Red Flag Warning.

V. PRESCRIPTIONS FOR WILDFIRE HAZARD REDUCTION

A common misconception is that “forest fires” occur in forests. On December 30, 2022, high winds sparked two wildfires east of Boulder. In the fierce winds, the two fires soon merged into one. The town of Superior, the city of Louisville and portions of other towns were ordered evacuated. The towns and cities burned were closer to downtown Denver than to the forest, yet the wildfire burned more than 900 structures and caused two fatalities. Once the fire reached the urban areas home to home ignitions, landscaping and fences carried the fire through neighborhoods.

Manitou is vulnerable to an urban conflagration such as the Marshall Fire, and residents must understand the fuel mitigation is as necessary for yards as in distant forests.

THE HOME IGNITION ZONE:



The term “home ignition zone” (HIZ) is defined as a structure and the surrounding vegetation. A structure’s vulnerability to wildfire depends on the surrounding vegetation, especially landscaping, and the structure itself.

Homes in Manitou Springs are frequently so close together that the typical standard of 100 feet of defensible space would cover several lots.

Ideally all the homes in neighborhoods should reduce their ignition hazards as a cooperative endeavor, but reality is that not all neighbors will act together. Even if neighborhood cooperation is less than 100 percent, individual homeowners can protect themselves by reducing the fuels on their own properties.

Sociological studies of behavior in communities find that approximately 10% of residents embrace and adopt new ideas early and their work persuades other residents. About 80% of the community will adopt an idea once they observe the success of the early adopters. Sadly, about 10% of the community adopts the idea late or not at all.

PROTECTING HOMES IN THE HIZ: fuel reduction in the HIZ is designed to protect structures from the heat of wildfires. Defensible space includes fuel reduction around structures to reduce the heat from burning vegetation and as described in the previous section, reducing flammability of the structures to protect them from wind born embers, radiation and convective heat.

The Fire Department can advise homeowners with site specific information.

Defensible space is defined as an area around a structure where existing vegetation is modified to slow the rate and intensity of an advancing wildfire. This includes selective removal of trees around structures in two or three concentric management zones. Not all lots in Manitou Springs are large enough to have all three zones, but we will use the standard descriptions here. They can be adapted to smaller lots or to several lots in communities. The Manitou Springs Fire Department can advise homeowners with site specific recommendations.

On slopes, increase the width of each zone on the downhill side. Fuels are reduced according to prescriptions for each zone. In an urban community like Manitou, fuels are primarily landscape or native plants surrounding the home.

ZONE ONE: This is the closest zone to a structure and extends 1-5 feet from the outermost edge of a structure including any decks. The management goal is to reduce or eliminate most large trees or shrubs within this zone so that the convective heat will not ignite the structure. One or two trees may be left in zone one if the lowest branches are pruned so that they are eight feet above a fire-resistant roof. Treat such trees as part of the structure and create 15-30 feet of space outside the tree.

Pruning large trees around a structure is a complicated and often dangerous endeavor that should be left to a trained arborist.

Homeowners in Manitou Springs have varying appetites for landscaping. Not all dangerous fuels are native plants. Some of the worst come from garden centers, and poor landscaping choices can undo all the good of defensible space.

Regardless of the homeowner's desire for landscaping, the one critical landscape feature is a five-foot non-combustible barrier adjacent to the foundation and deck. Defensible space does not prevent fires. It reduces them to low intensity in the concentric zones, but the barrier prevents a low intensity fire from touching a structure. The barrier can be bare dirt or more elaborate depending on the homeowner's taste. Under no circumstances use wood, rubber, or other combustible mulch next to a foundation.

If the homeowner prefers, some plants are permissible in the barrier. Plant only a few herbaceous flowers and never plant woody shrubs, junipers, or tall ornamental grasses. Any plant that creates woody or dry vegetation near the walls should be avoided.

ZONE TWO: Zone two extends for 5 to 30 feet from the foundation. The width of zone two depends on the slope around the house. Recall from Chapter Two that slopes increase fire intensity. As slopes increase, increase the width of zone two on the downhill side of the house, and increase the spacing between tree crowns.

The main fuels reduction guideline for zone two is to thin the trees to an average spacing of 10-foot crown separation. Clumps of two or three trees may be retained in this zone if the space between the clump and the adjoining trees is at least 30 feet. All ladder fuels under trees should be removed. The branches of large trees should be pruned to a height of 8 feet above ground, but small trees should have at least two-thirds of the green needles remaining.

Landscaping suggestions in zone two are:

- Foresters derisively refer to junipers as "gasoline on a stick" because of their high flammability. Planting juniper (Pfitzner) bushes near a foundation is arguably the worst mistake a landowner can make. Junipers should be removed from landscape plantings.
- Plant in small clumps with space between clumps.
- Stone, gravel, or dirt paths help break up fuel continuity and improve defensible spaces.

- Mow grass in zones two and three to less than four inches as needed. Mow grasses late fall so that dry grass does not remain around a home over the winter.
- Landscape with Firewise plants. El Paso County Cooperative Extension publishes a list of firewise plants that grow well in the county. The list is available at:

<https://elpaso.extension.colostate.edu/wp-content/uploads/sites/44/2022/09/Low-Water-Fire-Resistant-Plant-Materials-0712-2022-1.pdf>

- It is tempting to store firewood near the home for easy gathering on cold days. This habit should be avoided. Firewood should be stored at least 30 feet away and uphill from the home or any neighboring structures.
- Many homeowners desire wooden privacy or wood rail fences. In a wildfire, wood fences become wicks that bring flames in direct contact to a structure. Fortunately, it is not necessary to remove wood fences. Separating the fence from a structure with a five-foot metal gate will adequately mitigate the hazard. It is also wise to keep tall grass and other flammable vegetation at least five feet away from wooden fences.
- Carefully consider the landscaping in the vicinity of decks as well. Avoid planting flammable shrubs, such as junipers, anywhere near decks. Potted plants or wooden planters on decks may also increase the hazard. Even furniture with cushions or wooden frames may ignite from firebrands. The area of defensible space should be increased near decks, especially on the downhill side.

ZONE THREE: Zone three extends 30 to 100 feet from the foundation. Most homes in Manitou do not have a zone three. Trees here can be clumped in groups of two or three so long as there is at least 20 feet of space between clumps. Trees should also be pruned to eliminate ladder fuels. Firewise landscaping is necessary in this zone as well.

Gambel Oak Management:

Many homes in Manitou Springs have stands of Gambel or scrub oak in yards. Oak is popular with many homeowners as a privacy screen. When dead leaves remain on the branches after a late spring frost or in the fall it is a dangerous fire hazard. Guidelines for managing oak in urban lots are:⁴

⁴ Worley Keith. 2024. *Extreme Gardening, Taming the Scrub Oak Monster*. Unpublished paper.

- Break large oak clumps into smaller clumps. The diameter of a clump should be less than two times the height of the oak.
- Remove oak ladder fuel beneath other trees and create ten feet of space between oak and the dripline of adjacent trees.
- Remove decadent clumps and dead stems when mitigating oak.
- Ideally oak should be removed within 30 feet of structures.
- Oak stems that form an angle to the ground of less than 30 degrees are prone to breakage in heavy snow and should be removed from the clump.
- Remove small stems from the understory of the oak. These are ladder fuels.
- Oak resprouts prolifically after cutting. New stem must be mowed at a minimum of every three years. Some homeowners find that frequent mowing of new sprouts with a weed eater to be an effective means of controlling sprouts. Many garden centers, big box stores or rental centers rent brush hog type mowers that will cut three-year-old oak sprouts.



Well mitigated oak has clumps separated and the understory cleaned out. A fire would likely pass under this clump and stay on the ground

VI. MITIGATION PRESCRIPTIONS

One of Manitou Springs primary goals is to manage the city's open spaces and watershed properties as fire adapted forest.

SILVICULTURE AND WILDFIRE MITIGATION

Foresters manage trees not as individuals but in groups called stands. A stand of trees is defined as a group of trees that are similar with respect to age, species composition and other characteristics. Each stand is different from the ones nearby, and each landowner may have different objectives in addition to wildfire mitigation.

Thus, the information that follows is intended to be a general and highly simplified summary of the basic concepts of wildfire mitigation. It is only intended to give the reader an idea of how foresters approach the process of prescribing treatments for fire mitigation. When planning private fire hazard mitigation, an initial consultation with a forester is recommended.



Specific prescriptions for any forest stand are best developed when the existing conditions of the stand and the landowner's specific objectives are known.

The ponderosa sections in this photo illustrate how tree diameter is not a reliable indicator of age. The center section is 100 years old; section 2 is 99; section 3 is 101; section 4 is 90; section 5 is 85; section 6 is 130; section 7 is 81. (Sculpture by Bill Wallace. Photo by Bill Buckman, courtesy of the Black Forest Slash & Mulch Program)

Although foresters may use many characteristics of trees to categorize them, the most common--and useful when discussing fire mitigation--is the tree's tolerance to shade. Shade tolerance means the ability of a tree to germinate and

grow in the shade of other trees. Species of trees vary in their tolerance to

shade, but they can be grouped by those that require sunlight for germination and those that require shade.

SHADE INTOLERANT TREES

Shade intolerant trees are those that require full sunlight to sprout and grow to maturity. Shade intolerant trees are those that first colonize a site after a disturbance, such as wildfire, removes the existing trees. For this reason, ecologists call these pioneer species. Aspen, the most shade intolerant of local species, will send up new sprouts within days after a fire destroys the old trees. Shade intolerant trees common to this area include aspen and ponderosa pine.

It follows that if the trees in a particular area grow in following a disturbance, all the trees in a stand will be of roughly the same age. As the trees compete for sunlight, water and nutrients, the most vigorous become the dominant trees in the new stand. The dominant tree soon outgrows its siblings, yet the weak trees remain in the understory stunted and overtopped. Thus, in shade intolerant stands, small trees are not young trees but merely suppressed.

The following are some important species of shade intolerant trees with respect to fire mitigation:

PONDEROSA PINE: Of all the species of trees in the local area, ponderosa is the best adapted to survive a low intensity wildfire. First, the thick bark of the tree acts as insulation from the heat of the fire. Second, as the upper branches shade the lower branches, the low branches die, and in time, are broken off. Thus, there are fewer low hanging branches to act as ladder fuels. Fires that burn in the grass and litter under mature ponderosa rarely harm the tree.

ASPEN: As noted earlier, aspen is the most shade intolerant of local trees. Unlike the ponderosa, aspen bark is thin, and the tops of the trees are killed by even the coolest fire. The root system however is insulated from the fire's heat by the ground, and when the tree tops die, the roots respond by vigorously resprouting.

As a deciduous tree, aspen will not carry a fire in the tree crowns, thus fires drop to the ground in aspen stands. For this reason, aspen are desirable trees to retain in fuel breaks and defensible spaces. Furthermore, aspen are desirable wildlife trees, and many stands are becoming shaded out by conifers due to years of fire suppression.

Since wildfire mitigation practices almost always require thinning, many landowners assume that aspen should be thinned as well, but they should not. Thinning aspen is rarely recommended since the falling trees wound the remaining

trees. The bark on aspen is so thin that any wound will expose the tree to many different fungal diseases that are eventually fatal. Fire mitigation in aspen should be limited to removal of dead trees if care is taken to avoid wounding live aspen, removing down dead wood, and removing conifer regeneration from the aspen understory.

SHADE TOLERANT TREES

Shade tolerant trees are those that will sprout from seed and grow in the shade of the existing forest canopy. Shade tolerant trees are usually found on the cooler moister north facing slopes of hillsides and in moist drainages. In fact, most shade tolerant trees require shading for the seedlings to survive. A seedling in direct sunlight will often be burned by the sun. As a result, stands of shade tolerant trees contain trees of many ages. The most common shade tolerant trees in the area are pinon, Rocky Mountain juniper, and Douglas-fir and Colorado blue spruce.

PINYON AND ROCKY MOUNTAIN JUNIPER: By far, the most common trees on Manitou Spring's open spaces are pinyon and Juniper. Both grow on the poor sites and are managed together. Despite their reputation as gasoline on a stick, junipers provide sources of food and shelter for wildlife and should not be eliminated. Pinyon also provides food and shelter for wildlife. The general prescription for mitigating these species is to create clumps separated by openings.

The common means of managing pinyon juniper stands is similar to management of Gambel oak. Break up the horizontal and vertical continuity of fuels. Clumps should be separated by a minimum of two and one-half times the height of the trees. To reduce ladder fuels, pinyon and juniper should be pruned no more than three feet from the ground.

SPRUCE: Colorado blue and Engelmann spruce are so similar that they may be considered together for discussion of fire mitigation. Colorado blue spruce is usually found at lower altitudes (below 9,000 ft) while Engelmann spruce is usually found above 9,000 feet. The ability of seedlings to survive in the shade of mature trees usually creates dense forests with a closed canopy above and thickets of ladder fuel below. The typical fire regime in spruce is an infrequent stand replacing crown fire.

Spruces tend to be shallow rooted and excessive thinning of the upper canopy can result in wind throw in the remaining trees. Typically fire mitigation prescriptions for spruce require creating openings of one tenth acre or larger with

clumped trees between the openings. Removal of small trees in the understory of the clumped trees reduces ladder fuel.

DOUGLAS-FIR: Typically, Douglas-fir are found on cooler north facing slopes in lower elevations and mixed with spruce in higher elevations. It is in the lower elevation ponderosa pine forests where Douglas-fir has become the most serious concern for wildfire mitigation. After a century of fire suppression in lower elevation ponderosa pine stands the canopy has closed, shading the forest floor. As a result, Douglas-fir has invaded the understory of the ponderosa stands creating dense thickets of ladder fuels.

Douglas-fir are firmly rooted trees and can be thinned much the same as ponderosa pine. In lower elevation ponderosa stands most Douglas-fir should be eliminated, especially the ladder fuels. There is an important exception to this general rule where the ponderosa is infected with dwarf mistletoe. In such situations the landowner may choose to favor the Douglas-fir since they are immune to the ponderosa pine dwarf mistletoe. Special attention should be given to providing adequate separation between the crowns of larger trees and pruning the lower branches from the Douglas-fir to reduce ladder fuels.

Where Douglas-fir is intermixed with less wind firm spruce, they can be favored to maintain forest cover. It is still important to prune the trees to remove ladder fuels.

SLASH TREATMENTS:

Slash treatments will always be needed to clean up the residue from any forest thinning treatments. Untreated slash will only increase the fire hazard, possibly undoing all the good of thinning. It can also attract undesirable insects to the area—primarily ips beetles and turpentine beetles. Slash treatment may be the most labor intensive, and thus expensive, part of any fuel mitigation project.

LOP AND SCATTER: This treatment consists of using saws or equipment to cut the slash into smaller pieces so that the height of the remaining slash is reduced, usually less than 12 inches high by 24 inches long.

Slash cut into smaller pieces is less visible and will break down in shorter periods. It may be the only practical treatment in areas where chippers are unavailable, prohibitively expensive, or in inaccessible locations. It is usually the lowest cost treatment since no special equipment, other than a chainsaw, is required. Lop and scatter is a useful means of disposal when pruning lower branches in isolated areas or when thinning small areas where less slash is generated.

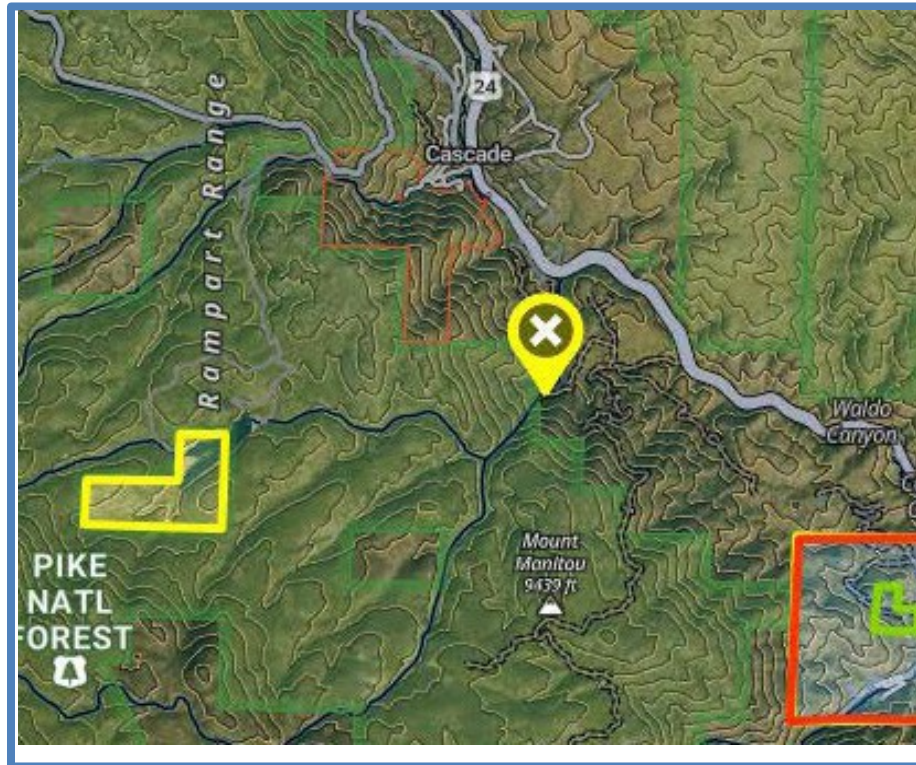
The treated slash is left to decompose, and until it breaks down it may be unsightly. Over the course of several winters, snowpack pushes the slash down and it decomposes. Decomposition usually requires three to five years or longer if larger material was present. It also creates an extremely flammable fuel bed until it decomposes, which can be easily ignited, and burns with high intensities. It should not be used adjacent to high values, such as homes, or areas prone to regular fire occurrence.

Lopped and scattered slash can also lead to problems with ips or turpentine beetles. The beetles may lay eggs in green slash and the brood may emerge to attack living trees. This problem can be alleviated by doing any forest restoration treatments requiring this method in the fall and winter when the beetles are not active and by cutting slash into small pieces that dry out quickly.

CHIPPING: It requires mechanized equipment to perform the chipping. The slash must be brought to the chipper, unless it is an expensive mobile chipping piece of equipment. Either way, it can quickly become a very expensive operation. Material can be chipped and left or removed for off-site disposal or as a product.

Chipping is a common method of slash disposal in the defensible zones around structures. Chips do not significantly contribute to the fire hazard around structures since they produce low intensity fire behavior. Large piles of chips should be avoided as they could smolder for a significant amount of time, however. Chips should be spread along the ground to a depth of less than four inches.

Chipping is an effective means of treating wood infested with bark beetles since the insects will not survive in the small bits of wood. Green slash that is promptly chipped will not harbor infestations of ips, turpentine, or other bark beetles. Chips also can pull nitrogen out of the soil, reducing the productivity of the ground.

MITIGATION PRESCRIPTIONS:

The reservoir property is the yellow polygon on the map on the left.

The water intake is at the yellow way point.

The steep canyon of French Creek between the dam and the intake is a high hazard and steep terrain makes for difficult mitigation.

MANITOU RESERVOIR:

The 50.4-acre property surrounding the reservoir was mitigated by the Coalition for the Upper South Platte in 2023. The Manitou Springs reservoir property is one parcel is a larger watershed that include Colorado Springs Utilities, Ute Pass and much of the Pike National Forest. All the parties to watershed and forest management should work as a cooperative unit to mitigate wildfire risks over the entire watershed.



Restored forests on the Manitou Springs watershed property. Restoration followed a clumpy-groupy pattern that characterized local forests before fire suppression altered the forest structure.

Now the objective is to maintain the restored forest in a fire adapted condition. The information in the maintenance section at the end of this chapter provides a yearly maintenance regime for the next decade.

FRENCH CREEK WATER INTAKE

The intake for Manitou's municipal water supply is located below the reservoir on French Creek. It may be the city's most at risk asset since a wild- fire upstream from the intake will cause flows of ash, soil and debris to flow into the intake and the municipal water supply.

The intake is located on the Pike National Forest and mitigation prescriptions and methods will be determined by the Pikes Peak Ranger District through the Forest Plan. As with the National Forest surrounding the reservoir, forest restoration is part of a cooperative regional effort.



The municipal water intake on French Creek. The greatest hazard here is not the dense vegetation near the intake, but that the forest along the French Creek valley will burn subjecting the intake to post fire debris flow and flooding

OPEN SPACES:

Open Spaces are one of Manitou's most prized assets. They are sources of recreation and provide undeveloped spaces between denser areas of homes. Residents prize their open spaces, and Manitou Springs places a high priority on their maintenance and stewardship.



The open spaces abut houses within the city and therefore, fuel mitigation is a high priority. Like most forests surrounding the city, wildfire risk is high due to fire exclusion.

Objectives for the open spaces are: 1) Maintain healthy wildfire adapted forest on the parcels. 2) protect vital infrastructure within the parcels, for example the water infrastructure. 3) use the areas as demonstrations of proper forest management and fuel reduction. Stewardship of lands by the city that the city is an active partner and a good steward of their properties. The city wishes to lead by example.

The open spaces in Manitou Springs included in this project are, Iron Mountain approx. 93 acres, Mesa Water tower approx. 27 acres, and the base of Red

Mountain approximately 20 acres. All these areas are on the edge of the city and visible by the residents of Manitou Springs. One of the goals of the project is to engage residents to see the mitigation work with hope they become interested in mitigation. Aesthetics and public acceptance of the projects are critical.

Mesa Water Tower



This 27-acre property is on the west edge of town and has one of the city's water towers on it and the city's lone water treatment plant just west of the parcel. Given the steep terrain and high fuel loadings, intense wildfires would be likely. Interruption of water would make the city nearly uninhabitable. Mitigation would make the water tower more resistant to wildfire and keep a major city infrastructure asset safer from the threat of wildfire and post-fire problems.

The area is steep but there is access to the water tower and to the treatment

plant. The access road to the treatment plant is rough, but accessible to a low clearance vehicle. Dense shrubs line the road along the way to the treatment plant. Surprisingly Siberian elm is a large component of the shrub fuels. There is no fuel model for this situation, but the elm resembles a Gambel oak fuel model.

If a wildfire were burning in the area, it would be unsafe to try to protect the structures since firefighters could be suddenly trapped if access were cut off. Dense fuels adjoin the road and access to protect the treatment plant would be impossible during a wildfire.

Many acres of the open space can be masticated with a skid steer. This would be by far the most economical method of work. Steep parts could be done by hand crews and a tracked chipper although hand work is always more expensive than machine work.

Some areas can be hand cut, with the slash lopped and scattered. The slash is unsightly until it decays in three to five years. Due to the unsightliness of the slash, try to use this method as little as possible. Mitigation should concentrate on breaking up the continuity of fuel by making openings in the continuous fuels. Remove as much Siberian elm as possible in the mitigation process. Siberian elm is a nonnative plant and has surely seeded in from trees planted around the city. Many plant authorities go so far as to call it an invasive species.

Black Canyon Open Space:

The 30-acre Black Canyon Open Space on the northeast side of the city is an undeveloped parcel that does not directly abut homes. Cedar Heights is about one-half mile from the northern boundary of the property although it does not directly adjoin it. Homes in that community could be at risk from firebrands should the property ever burn. Black Canyon also adjoins the Garden of the Gods, a park that the City of Colorado Springs considers a high priority and is the process of mitigating. There is an opportunity to work cooperatively with Colorado Springs and Cedar Heights to jointly mitigate the hazards on a larger landscape level.

During a walk through the property, several long abandoned homeless camps were observed. It did not appear that there were any recent camps in the area.



Overall, wildfire hazard is high on the steep slopes adjoining the two canyons, but moderate along the ridgetops. Fuels are a mix of pinon pine, Rocky Mountain juniper and Gambel oak in openings between the trees. There are also a few ponderosa pines although they make up only a small portion of the trees. Pinyon, juniper and Gamble oak dominate the site. On the north facing slope above Black Canyon Road the trees are dense with smaller patches of oak in the openings. On the ridgetop the trees become more open. Openings between the trees are wider and filled with Gamble oak.

The prescription is to create openings and gaps in the continuous fuels to slow the rate of spread and intensity of wildfires moving through the property. Small masticating heads mounted on skid steers would be the ideal means of work along the ridge and where slopes are moderate with fewer rocks. Even though fires may burn up the slope mitigation along the ridge will slow and reduce the intensity of fires burning up the ridge

The steeper slopes where the terrain is rocky present a problem. This slope

has a high wildfire hazard, but the combination of steep, rocky terrain makes any work more difficult. Hand cutting and use of a tracked chipper may be the only practical and cost effective, albeit expensive, way of working the slope, and some rocky areas may still be inaccessible. Work in the areas that are accessible to the chipper. Some other areas can be mitigated using hand crews and lop and scatter for slash disposal. Lop and scatter should be used only in small areas.

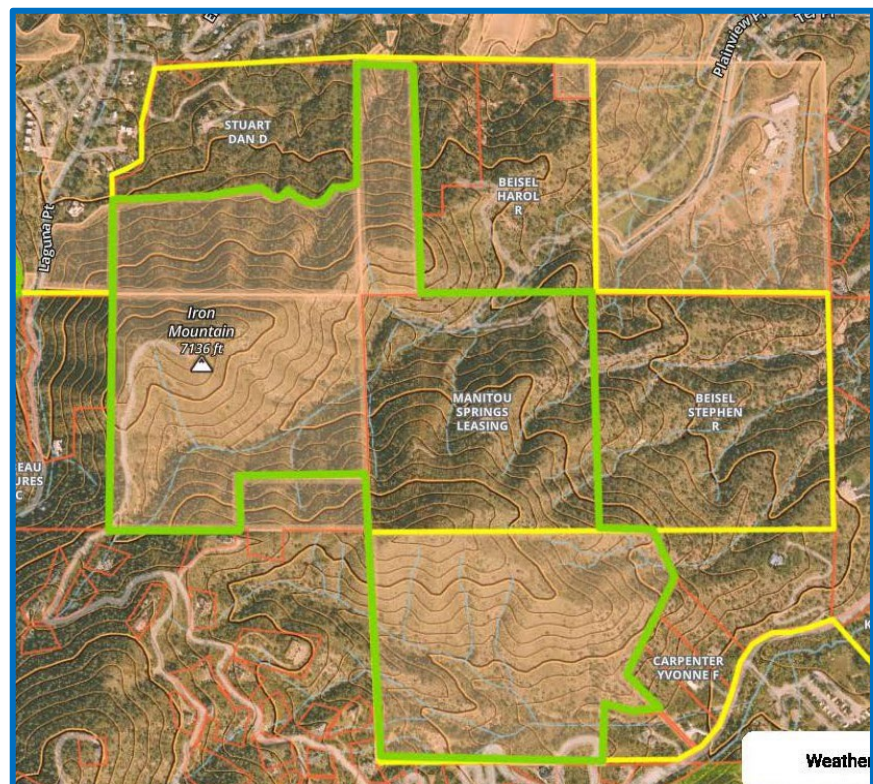
One difficulty in this open space is access. With no developed roads or trails it is difficult to access the site. There are some social trails that appear to be well used. The current social trail, running along the ridge from the northwest corner to Highway 24 appears to be an old, abandoned, road. The road is faint in some places. With only minor improvements, it would be accessible for tracked chippers or skid steer mounted masticator. However, a pickup truck could not traverse the old road without a great deal of improvement.

Judging from aerial photographs, this trail meets Black Canyon Road on private property near the old quarry, and it traverses private property before reaching the Manitou open space. Permission to access the property with equipment would be required to use this route.

Iron Mountain Open space:

Iron Mountain Open Space is on the southeast side of Manitou Springs, the area is approximately 92 acres. The Intemann Trail (Ring the Peak Trail) traverses the open space. In many places the trail is an abandoned road that would provide access for small, motorized equipment or a pickup truck.

The area is bordered by the neighboring community of Crystal Park on the south, and some homes directly adjoin the open space. Parts of the open space are more easily



accessible through private properties in Crystal Park, if agreements for access can be negotiated with the landowners. As Crystal Park is a Firewise Site with mitigation programs of its own, the possibility of cooperation between the communities seems worth pursuing.

Slopes are steep, sometimes 45 degrees, and cut by deep drainages with stands of ponderosa pine and Douglas-fir, usually on north facing slopes. The north facing slope of Iron Mountain is forested with ponderosa and Douglas-fir and Gambel oak. On south and west facing slopes, vegetation is usually scattered clumps pinyon and Rocky Mountain juniper with mountain mahogany and some oak between tree clumps. Some of the slopes could be mechanically masticated with skid steers, but others are too steep. As with other open spaces, track chippers and hand crews could work most of the slopes.

Although high intensity fires are likely in the timber fingers, the surrounding mountain mahogany would support moderate intensity fires. The most effective mitigation would be to treat the shrubs above the draws on more accessible ridgetops by creating openings and breaking up the continuity of the fuel.

In the draws, terrain is too steep to permit motorized equipment, and any work would need to be done by hand. Larger trees tend to be in clumps with space in the canopy around the clumps. The greatest hazard is lower limbs, regeneration or shrubs in the understory that would act as ladder fuel. Wholesale forest thinning would not accomplish much and be prohibitively expensive. The prescription for timber stands in these areas would be to do the pruning of lower branches, minor thinning regeneration and brush ladder fuels, and lop and scatter slash.

To avoid generating large quantities of unsightly slash, work can be done in smaller areas, probably by volunteers over longer periods, and in isolated clumps of piñon and juniper on the slope above the drainages. The timber is not so continuous as to present a severe fire hazard.

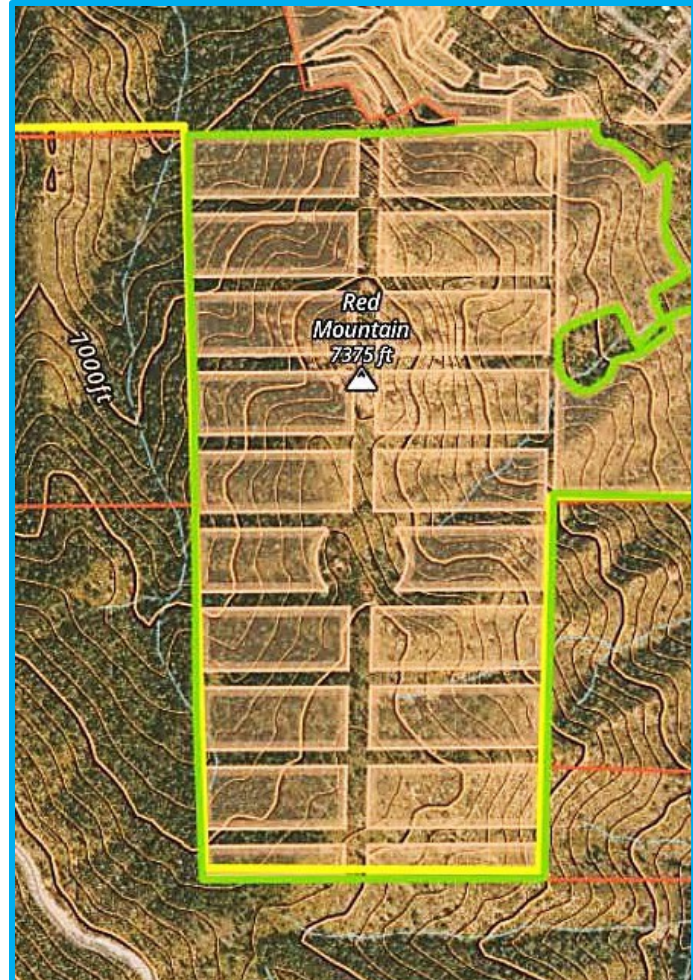
Red Mountain:

There are several parcels together that add up to about 20 acres, this acreage is also on the south side of Manitou Springs and is adjacent to the Iron Mountain Parcels that are part of the plan. This area is right on the edge of residential area and has the popular Intemann trail on it, that also access's the popular Red Mountain Trail. This area is also thick with Gamble oak, mountain mahogany, and some pine trees. The area would benefit from reducing

fuel in the area and break up the continuity of vegetation in the area. This area would also be a mix of mastication, hand work with lop and scatter and chip-ping capabilities.

All these areas mitigated would make the city more wildland fire resilient, meet goals that were set in the CWPP, build partner- ships for further mitigation in the fu- ture, and raise awareness of the benefits of mitigation. As a result, residents might take a more seri- ous look into mitigating their properties. There has been miti- gation done in a city open space and mitigation done at the City's Reservoir but using that work as a public engagement opportunity should be explored.

Mitigation of open spaces is also an opportunity for the city to lead by example. The city's work will be an example of proper forest stewardship that will inspire resi- dents to mitigate their own prop- erties.



MAINTENANCE

Survivable space, fuel break thinning, or any type of forest management does not end when the initial project is finished. Continual maintenance is an essential part of any forest management program. Even in well managed forests trees will die, storms and wind will damage trees, and new trees will germinate.

Trees should be inspected every spring for any sign of damage from winter or spring snow or wind. Prune any broken branches if they are not too high in the tree, and trees bent by heavy winter snow should be removed. Check for any signs of insect activity or disease.

Late October is the best time to inspect trees for attack by mountain pine beetles. Beetles have finished attacking trees at this time, and there is adequate time to cut and treat the tree before the adult beetles fly the next July.

At five years check the canopy closure, especially in zones one and two. Remove any trees necessary to maintain openings in the canopy. Do any additional pruning or removal of trees and shrubs to eliminate ladder fuels.

After ten years, dense thickets of young trees (regeneration) may have become established, and these will need to be thinned. Not all regeneration should be cut since trees of various ages are important for forest diversity. Young trees in openings with adequate room to grow should remain. Regeneration that is likely to become ladder fuel or crowded by other trees should be cut. Depending on their objectives, landowners may want to consider removing some of the larger trees to make room for the younger ones.

VII Implementation and Monitoring

PRIVATE PROPERTY:

Mitigation on private parcels within the city is the responsibility of the home- owner. The city does not enforce mitigation on privately owned properties. Although the city does not regulate, it can persuade.

The Fire Department provides homeowner assessments and aids private property mitigation through the chipping program. As more homeowners do work, more homeowners join the effort.

Many homeowners who understand the need to mitigate their properties are discouraged because they feel it is useless unless all property owners do the same. Recalling the material describing how communities respond to ideas, it is the early adopters who begin persuading neighbors to act. These are the people most likely to reach out for home inspection or advice, and they are more likely to become neighborhood spark plugs. It is important to respond and encourage early adopters. The success of neighborhood mitigation begins with them.

Successful forest restoration or mitigation efforts too often go unnoticed. The city's public information staff (PIO) should be a team member for all mitigation projects public or private. The public information staff has excellent knowledge of social media, flyers, print and broadcast media. The PIO staff should know of every mitigation event and successful project.

Community outreach should never understate the wildfire hazard. It is a real threat. H o w e v e r, t o o often the message residents receive is that the situation is hopeless, and destruction is inevitable. Everyone remembers the destruction of Mountain Shadows during the Waldo Canyon Fire, but who remembers that Cedar Heights, a properly mitigated community, survived the fire? Examples of successful mitigation are more persuasive than the death and destruction approach usually used by firefighters.

Ultimately effective mitigation requires a community effort. Using local media such as the newspaper or neighborhood chat rooms to publicize successful mitigation projects tells homeowners that there is indeed work going on and they are not alone.

Another impediment for homeowners is lack of knowledge. How does one begin to mitigate a property? Again, the Fire Department is the principal

source of information.

Mitigation is strenuous. Many residents do not have the physical strength to prune branches, wield chainsaws or do the work that mitigation requires. When communities are organized, neighbors help neighbors, mitigation becomes a community bonding activity.

OPEN SPACE IMPLEMENTATION:

Mitigation in city owned open spaces requires budgeting funds to do the work. As of this writing, mastication rates range between \$2,500 and \$3,200 per acre depending on the difficulty of the work. The daily cost of a hand crew runs from \$1,500 to \$2,500 per day.

The process requires support from the Fire Chief, city leadership, Public Works, Planning department, and City Council. With support from city officials, start developing partnerships to get as much mitigation done as possible. The City Leadership and Council will also be able to allocate funds to get these projects done.

Funds appropriated by the City can be used as matching funds for cost share grants. Typically grants require a 50% match, but the figure varies with the program. Most grant programs favor funding projects with a large regional impact—"landscape level effect", is the term. A landscape level effect is usually reached by partnering with other entities to combine individual projects into regional projects.

The city already has had some experience with this concept. The mitigation of the reservoir was done with just such a grant. Manitou Springs partnered with the Coalition for the Upper South Platte (CUSP) to combine that project with others in the region. The larger project became "landscape level" and was funded. CUSP acted as the fiscal agent that distributed the funds to individual projects.

Partnerships with Crystal Park HOA, City of Colorado Springs, and Colorado Springs Utilities and other fire districts build relationships for regional impacts and funding. Individual projects do not need to directly adjoin. The Black Canyon Open Space adjoins property that City of Colorado Springs is mitigating. Crystal Park, adjoining the Iron Mountain open space, is also an active neighbor.

Working together to fund projects creates a spirit of regional cooperation and gives projects a better chance of funding. Larger projects also bring economies of scale that lower costs for all the participants. Colorado Springs Utilities has powerlines and infrastructure to protect. Partnering with them for

possible funding, ideas and knowledge of what may work best for mitigating the area.

City of Manitou Springs Planning, Public Works, Parks and Rec, the city's public information officer would also need to be involved in making this plan work. The Planning Department marks the property lines and easements. A Public Works and Parks and Rec partnership will be cost saving. In some cases, they could provide equipment for chipping, manpower, heavy equipment.

Project timeline would be:

2025: Black Canyon Open space mitigated and used as centerpiece to show-case mitigation.

2026: Iron Mountain and Red Mountain Mitigation done

2027: Water Tower mitigation done.

Once work is completed for each facet of the project it is important to meet with the partners and review the project. Like an after-action review of a wild-fire, determine if the goals were met. Note what parts of the project went well and why. Review what could have gone better to improve future projects.

The public takes a great interest in the open spaces and their protection. Hikers and visitors often believe that any sort of vegetative alteration is an unnecessary alteration of the natural environment. It's imperative to reach out to the public so that they understand the changes in natural ecosystems since fire suppression and to explain the process of forest restoration.

Outreach will ensure the project is not going unseen, and residents can learn from the mitigation efforts. A key element of success is to encourage residents to mitigate their own properties. The city becomes a community spark plug showcasing mitigation on their open spaces.

After every piece of the project being completed, it will be showcased to the public via news articles, social media, The city will sponsor tours explaining what mitigation was done, and why, how it helps the residents, the city itself and how it restores the forest and improves wildlife habitat

MONITORING

Monitoring is an important part of follow-up to the implementation of projects. HFRA instructs participants to establish, where interest is expressed by the communities, a collaborative multiparty monitoring process. This process should address reporting of accomplishments, need for maintenance of treated areas, tracking of burned areas and the positive and negative ecological and social effects of the projects.

Monitoring in the Manitou Springs Community Wildfire Protection Plan calls for an annual field review by the partners (participants) of accomplishments and need for maintenance. Based on this review, it calls for the necessary adjustments in the next year's plan, as appropriate. Thirdly, it calls for a determination of interest and meeting by the partners for monitoring the ecological and social effects of projects. These tasks are identified in the table on the next page.

Implementation Plan

The following pages contain projects the City of Manitou Springs, its partners and all private owners should undertake to manage wildfire risks. These are all high priority projects to complete within the next five years. Partners may include:

City of Colorado Springs
 Crystal Park
 Cascade
 Green Mountain Falls
 Chipeta Park
 Colorado Springs Utilities (CSU)
 Colorado Springs Fire Department (CSFD)
 El Paso County- (EPCO)
 El Paso County Sheriff's Office- EPCO-SO (includes Office of Emergency Mgmt.)
 El Paso County Public Works
 Colorado Dept. of Transportation- (CDOT)
 Colorado State Forest Service- (CSFS)
 USDA Forest Service, Pike National Forest- (USFS)
 Abutting Subdivisions to include open spaces and lots.
 Private ownerships and businesses.

Critical Infrastructure	Action	Partnerships
Water System	Begin fuel mitigation in the Valley of French Creek above the city water intake	
	Install five feet wide noncombustible border around all water facilities and structures	
	Implement defensible space and HIZ fuel treatments around all structures	
	Maintain access to fire hydrants with 10' of clearance of all fuels. Ensure engine accessibility at roadsides	
	Each spring, inspect forests on the Manitou Springs Reservoir property for needed maintenance of mitigation project	
	Mitigate all fuels within 200 feet of all buildings and structures	
CSU- Electrical	Maintain line clearances.	
Critical Ingress/Egress Routes	Begin Public Education programs to teach property owners the importance of maintaining vegetation along roads to firewise standards.	

	Conduct mock evacuation exercises in high hazard neighborhoods	
All Structures (High Priority)	Structural hardening against embers is required for all structures in Manitou Springs	
	Implement Home Ignition Zones around all structures	
Annual and ongoing events	Promote Firewise landscaping principals	
	Annual cleanup projects around businesses and residences	
	Continue slash chipping or other comparable slash removal program	
	Peak Alerts Signup to receive emergency notifications	
	Access and Functional Needs Registry for those with special needs (homebound, handicapped, infirm, etc.). NOT currently available	
	Educational programs	
Critical Forest Fuel Treatments	All properties are treated to mitigate ladder fuels and implement forest restoration with the goal of fire adaption	
	Schedule Treatments for Open Space mitigation per Open Space Implementation Schedule	
	Manage fuel loading on vacant lots that abut residential areas utilizing grant funds	
CWPP Administration	Develop a yearly work plan outlining priorities and potential costs for Wildfire mitigation activities	
	Educational programs	
	Apply for grants or other funds to assist with fuel treatments both inside and outside of the community. This may include distribution and administration of funds	
Pre and Post-fire Planning		
All Roads	Analyze all culvert crossings and roadside ditches for ability to withstand post-fire mud flows. Pre-plan for silt/ash cleanup	

Utilities Crossing Major Storm Channels	Plan for emergency repairs. Harden all crossing points if road crossings are upgraded to handle 100+ year events	
All Neighborhoods	Identify areas most prone to post-fire mud and debris flows. Recommend to owners in these areas acquire FEMA Flood Insurance	

Appendix A: Further Information

Websites:

Natural Resources Grants Database: <https://csfs.colostate.edu/natural-resources-grants-database/>

Colorado State Forest Service:
<http://www.csfs.colostate.edu/>

Colorado State University Extension:
<https://extension.colostate.edu>

Pike National Forest:
<http://www.fs.usda.gov/psicc>

Bureau of Land Management, Royal Gorge Field Office:
<https://www.blm.gov/office/royal-gorge-field-office>

Natural Resources Conservation Service :
<http://www.co.nrcs.usda.gov/>

Publications:

Best Management Practices to Protect Water Quality:

https://csfs.colostate.edu/wp-content/uploads/2024/01/BMP_WaterQuality_2023_Web_CMP.pdf

Wildfire Mitigation CO Dept. of Revenue Tax Subtraction:

https://tax.colorado.gov/sites/tax/files/documents/ITT_Wildfire_Mitigation_Measures_Feb_2024.pdf

Fuel Break Guidelines for Forested Communities: https://static.colostate.edu/client-files/csfs/pdfs/fuelbreak_guidelines.pdf

Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones:

<https://csfs.colostate.edu/wildfire-mitigation/protect-your-home-property-from-wildfire/>

Low Flammability Landscape Plants:

https://csfs.colostate.edu/wp-content/uploads/2023/05/CSFS_CSU-Ext_Fact-Sheets_LFLP_FINAL_web.pdf

Low Water Use and Fire-resistant Native Plant Materials for El Paso County:

<https://elpaso.extension.colostate.edu/wp-content/uploads/sites/44/2022/09/Low-Water-Fire-Resistant-Plant-Materials-0712-2022-1.pdf>

Firewise Principles:

<https://csfs.colostate.edu/wp-content/uploads/2016/09/MVFS-HIZ-Presentation.pdf>

Grass Seed Mixtures to Reduce Wildfire Hazard:

<http://csfs.colostate.edu/pdfs/06306.pdf>

Colorado Property & Insurance Wildfire Preparedness Guide:

https://csfs.colostate.edu/wp-content/uploads/2023/05/Wildfire_22x8.5_2021.pdf

Forest Home Fire Safety:

<https://csfs.colostate.edu/wp-content/uploads/2024/01/Forest-Home-Fire-Safety-Fact-Sheet-6.304.pdf>

Forest Health and Management

Gambel Oak Management:

<https://csfs.colostate.edu/wp-content/uploads/2024/01/Gambel-Oak-Management-Fact-Sheet-6.311.pdf>

Forest Insect and Disease Information

Mistletoes in Colorado Conifers:

<https://csfs.colostate.edu/wp-content/uploads/2024/01/Mistletoes-in-CO-Conifers-Fact-Sheet-2.925.pdf>

Bark Beetles are Your Trees at Risk?:

<https://static.colostate.edu/client-files/csfs/pdfs/Bark-Beetles-Brochure.pdf>

Mountain Pine Beetle:

<https://csfs.colostate.edu/wp-content/uploads/2024/01/Mountain-Pine>

Ips Beetles:

<https://csfs.colostate.edu/forest-management/common-forest-insects-diseases/ips-beetle/>

Piñon Ips Bark Beetle:

https://csfs.colostate.edu/wp-content/uploads/2020/06/2020_Pinon_Ips_CSFS_Quick_Guide_Web.pdf *Western Spruce Budworm:*

https://csfs.colostate.edu/wp-content/uploads/2014/02/Western_Spruce_Budworm_QG_10May2016.pdf

Emerald Ash Borer:

https://csfs.colostate.edu/wp-content/uploads/2016/04/FINAL_EAB_QuickGuide_Revision_25APRIL2016.pdf *Protecting Trees During Construction:*

<https://csfs.colostate.edu/wp-content/uploads/2024/01/Protecting-Trees-During-Construction-Fact-Sheet-7.420.pdf>

Appendix B

Glossary of Forestry Terms

Abiotic Factors: The non-living components of the environment, such as air, rocks, soil, water, peat, and plant litter.

Afforestation: The establishment of trees on an area that has lacked forest cover for a very long time or has never been forested.

Aerial fuels: Standing and supported live and dead combustibles not in direct contact with the ground and consisting mainly of foliage, twigs, branches, stems, cones, bark, and vines: typically used in reference to the crowns of trees.

Cambium: A single layer of cells between the woody part of the tree and the bark. Division of these cells result in diameter growth of the tree through formation of wood cells (xylem) and inner bark (phloem).

Canopy: The forest cover of branches and foliage formed by tree crowns.

Chain: A measuring tape, often nylon, 50 meters or 75 meters in length, used to measure distances. This term is derived from an old unit of measurement (80 Chains = 1 mile).

Chimney: A topographical feature such as a narrow drainage on a hillside or the upper end of a box canyon that could channel wind, smoke or flames up the slope; acting as a fireplace chimney would draw smoke and heat upward.

Class A Roof: Effective against severe fire test exposures, as classified by the Universal Building Code (UBC). Under such exposures, roof coverings of this class are not readily flammable, afford a fairly high degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands.

Class B Roof: Effective against moderate fire test exposures, as classified by the Universal Building Code (UBC). Under such exposures, roof coverings of this class are not readily flammable, afford a moderate degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands.

Class C Roof: Effective against light fire test exposure, as classified by the Universal Building Code (UBC). Under such exposures, roof coverings of this class are not readily flammable, afford a measurable degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands.

Clearcut: An area of forest land from which all merchantable trees have recently been harvested.

Climax Forest: A forest community that represents the final stage of natural forest succession for its locality, i.e. for its environment.

Coarse Woody Debris (CWD): Sound and rotting logs and stumps that provide habitat for plants, animals, and insects, and a source of nutrients for soil development.

Colorado Champion Tree: The largest known tree of its species in the state. Trees are ranked by a point system based on three measurements: trunk circumference in inches at 4.5 feet above the ground, tree height in feet, and the average crown spread in feet.

Commercial Thinning: A silviculture treatment that "thins" out an overstocked stand by removing trees that are large enough to be sold as poles or fence posts. It is carried out to improve the health and growth rate of the remaining crop trees.

Competing Vegetation: Vegetation that seeks and uses the limited common resources (space, light, water, and nutrients) of a forest site needed by preferred trees for survival and growth.

Conifer: Cone-bearing trees having needles or scale-like leaves, usually evergreen, and producing wood known commercially as "softwoods."

Conservation: Management of the human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. It includes preservation, maintenance, sustainable utilization, restoration, and enhancement of the environment.

Crown Fire / Crowning: A form of extreme wildland fire behavior consisting of fire that advances from top to top of trees or shrubs independent of a surface fire. Crown fires are sometimes classed as running or dependent to distinguish the degree of independence from the surface fire.

Deciduous: Perennial plants that are normally leafless for some time during the year.

Defensible Space: An area within the perimeter of a parcel, development, neighborhood, or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used herein is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures. In simplest terms, it is adequate space between structures and flammable vegetation which allows firefighters a safe working area from which they can attack an oncoming wildfire. Defensible Space is the best element of fire protection for individual property owners.

Defoliator: An agent that damages trees by destroying leaves or needles.

Dripline: The outermost leaves on a tree define its dripline and the ground within the dripline is known as the drip zone; also defined as the area defined by the outermost circumference of a tree canopy.

Deforestation: The removal of a forest stand where the land is put to a non-forest use.

Eave Opening: A vent located in an eave or soffit which allows airflow into the attic and/or walls of a structure.

Ecosystem: A functional unit consisting of all the living organisms (plants, animals, microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow. An ecosystem can be of any size a log, pond, field, forest, or the earth's biosphere but it always functions as a whole unit. Ecosystems are commonly described according to the major type of vegetation; for example, forest ecosystem, old-growth ecosystem, or range ecosystem.

Escape route: A preplanned and understood route firefighters take to retreat from an unsafe or fire threatened area and move to a safety zone or other low-risk area.

Extreme Fire Behavior: A level of fire behavior that ordinarily precludes firefighting methods involving direct attack on the fire. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

Felling: The cutting down of trees.

Firebrands: Flaming or glowing fuels lofted into the air during intense burning by strong upward convection currents. Also referred to as airborne embers.

Fire break: A natural or constructed fuel-free barrier used to stop or check fires that may occur, or to provide a control line from which to work.

Fire front / Flame front: The part of a fire within which continuous flaming combustion is taking place. Unless otherwise specified, the fire front is assumed to be the leading edge of the fire perimeter.

Fire Dependent: Requiring one or more fires of varying frequency, timing, severity, and size in order to achieve optimal conditions for population survival or growth.

Fire Hazard Mitigation: Various methods by which existing fire hazards can be reduced in a certain area, such as fuel breaks, non-combustible roofing, spark arresters, etc.

Fire Management: The activities concerned with the protection of people, property, and forest areas from wildfire and the use prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social, and economic criteria.

Fire Suppression: All activities concerned with controlling and extinguishing a fire following its detection.

Firewise: A National Fire Protection Association's (NFPA) program encouraging local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from wildfire risks.

Forest Fire: Any wildfire or prescribed burn that is burning in forest, grass, alpine, or tundra vegetation types.

Forest Type: A group of forested areas or stands of similar composition (species, age, height, and stocking) which differentiates it from other such groups.

Fuel: Any living or dead material that will burn.

Fuel break: An existing barrier or change in fuel type (to one that is less flammable than that surrounding it) or a wide strip of land on which the native vegetation has been modified or cleared, that acts as a buffer to fire spread so that fires burning into them can be more readily controlled. Often selected or constructed to protect a high value area from fire.

Fuel 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.

Fuel reduction zone: An area similar to a fuel break but not necessarily linear, in which fuels have been reduced or modified to reduce the likelihood of ignition and/or to reduce fire intensity thereby lessening potential damage and resistance to control.

Germination: The development of a seedling from a seed.

Home Ignition Zone (HIZ): An area including the home and its immediate surroundings within which burning fuels could potentially ignite the structure; usually considered to be an area extending out roughly 100 feet from the home. The HIZ is often used to describe the area in which fuel modifications measures should be taken to protect the home.

Ladder Fuels: Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to crown fires.

Lines of Effort: Tasks or sets of actions that are linked or coordinated with other task sets to accomplish a larger mission or reach a desired end state. Lines of effort allow leaders and decision makers to direct a variety of separate actions toward a unified result.

Maximum Density: The maximum allowable stand density above which stands must be spaced to a target density of well-spaced, acceptable stems to achieve free-growing status.

National Fire Protection Association (NFPA): A private, nonprofit organization dedicated to reducing fire hazards and improving fire service.

Phloem: A layer of tree tissue just inside the bark that conducts food from the leaves to the stem and roots.

Pitch Tubes: A tubular mass of resin that forms on bark surface at bark-beetle entrance holes.

Prescribed Burning: Controlled application of fire to wildland fuels, in either their natural or modified state, under certain conditions of weather, fuel moisture, soil moisture, etc. as to allow the fire to be confined to a predetermined area and at the same time to produce results to meet planned land management objective.

Ready, Set, Go (RSG): A program, managed by the [International Association of Fire Chiefs \(IAFC\)](#), seeking to develop and improve the dialogue between fire departments and residents. The program helps fire departments teach individuals who live in high-risk wildfire areas how to best prepare themselves and their properties against fire threats.

Regeneration: The act of renewing tree cover by establishing young trees, naturally or artificially note regeneration usually maintains the same forest type and is done promptly after the previous stand or forest was removed.

Saddle: A depression, dip or pass in a ridgeline; significant in wildland firefighting because winds may be funneled through a saddle, causing an increase in wind speed.

Safety zone: An area essentially cleared of flammable materials, used by firefighters to escape unsafe or threatening fire conditions. Safety zones are greatly enlarged areas in which firefighters can distance themselves from threatening fire behavior without having to take extraordinary measures to shield themselves from fire/heat.

Sapwood: The light-colored wood that appears on the outer portion of a cross-section of a tree.

Serotinous: Pertaining to fruit or cones that remain on a tree without opening for one or more years, note in some species cones open and seeds are shed when heat is provided by fires or hot and dry conditions.

Shaded fuel break: A fuel break built in a timbered area where the trees within the break are thinned and limbed up to reduce crown fire potential, yet retain enough crown canopy to provide shade, thereby making a less favorable microclimate for surface fire's.

Silviculture: The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands. Silviculture entails the manipulation of forest and woodland vegetation in stands and on landscapes to meet the diverse needs and values of landowners and society on a sustainable basis.

Snag: A standing dead tree or part of a dead tree from which at least the smaller branches have fallen.

Stand: A continuous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

Spot Fire / Spotting: Fires ignited beyond control lines or outside the perimeter of a fire by firebrands landing on/among flammable material. Spot fires/spotting are a form of extreme fire behavior typically resulting from high wind conditions.

Structure protection: A defensive strategy in wildland firefighting in which firefighters are assigned to evaluate, prepare and, when possible, defend structures/homes that may be threatened by a wildfire.

Structure triage: Evaluating and sorting structures/homes into categories based on their relative likelihood of surviving a wildland fire threat (*defensibility*). Triage decisions are based multiple factors and conditions occurring during an actual fire - weather, fire behavior, home ignition potential, defensible space, presence of escape routes, and availability of firefighting resources, among others - with the goal of doing the most good with the resources available.

Succession (or Ecological Succession): The replacement of one plant and/or animal species over time by another in progressive development toward climax vegetation.

Surface fuels: Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low-lying live vegetation.

Survivable space: A term typically used to describe the area around a structure/home indicating that fuels in the area have been reduced to the point that there is little or no serious fire threat to the structure; the structure has a high probability of surviving a wildland fire without anyone on scene providing active protection.

Thinning: A cutting made in an immature crop or stand primarily to accelerate diameter increment, but also, by suitable selection, to improve the average form of the tree that remain.

Torching: The burning of the foliage of a single tree or a small group of trees, from the bottom up. Sometimes, also called candlering. Torching is an extreme form of fire behavior, similar to but less extreme than crowning in that crowning affects larger numbers, even entire stands of trees.

USDAFS: United States Department of Agriculture - Forest Service, what is commonly known as just "The Forest Service"

Windbreak: A strip of trees or shrubs maintained mainly to alter wind flow and microclimates in the sheltered zone, usually farm buildings.

Wildland-Urban Interface or Wildland-Urban Intermix (WUI): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Although *Interface* is the more general, more commonly used term; it technically refers specifically to the area where development and wildlands meet. *Intermix* indicates the presence of wildland vegetation/fuels intermingled throughout the developed area.

Appendix C:

INSECT AND DISEASE INFORMATION

Literally thousands of insects and diseases are present in the forests surrounding Manitou Springs or any other forested area. Fortunately, like the common cold, most do no serious or lasting damage. But when in poor health, trees, like humans, are more prone to infection from other causes; the concept of preventive medicine applies to forests, as well as to humans. Maintaining forests in good health will prevent problems in the future. For the most part, forest insect and disease issues are typical for the region.

Every summer, insect and disease specialists from the USDA Forest Service and Colorado State Forest Service (CSFS) survey Colorado's forests from the air to monitor insect and disease outbreaks. These flights are an excellent means of finding new areas of insect and disease activity and monitoring trends in existing outbreaks. Maps of the previous year's findings are published in January and can be found on the CSFS website at



Well maintained forests have a multitude of benefits. They are resistant to catastrophic fires, insect and disease, sustain wildlife populations and pleasant places to be.

<http://csfs.colostate.edu/pages/common-insects.html>.

This link also contains more detailed information on the insect and disease issues presented here.

The unnaturally dense forest conditions that cause the potential for hazardous fire also create the potential for cyclical insect and disease outbreaks. Trees weakened by overcrowding and severe competition for water and sunlight are susceptible to invasion by insects and disease. When planning wildfire hazard mitigation projects, it is important to address current insect or disease issues and prevent those that are likely to become a problem. Following is information on some of the common forest insect and disease problems that have been identified in the region.

DWARF MISTLETOE

Dwarf mistletoe is a parasitic plant that robs moisture and nutrients from the host tree. Over many years, it causes the tree to decline in vigor and eventually may cause death. More commonly, the tree declines to the point where bark beetles attack and kill it.

Three common species of dwarf mistletoe are found in the region, each named after its principle host – ponderosa pine, lodgepole pine and Douglas-fir. Locally, ponderosa and lodgepole varieties grow on any pine species, but Douglas-fir dwarf mistletoe is exclusive to Douglas-fir trees. Spruce, true firs and deciduous trees are immune to all three species of dwarf mistletoe.



A ponderosa pine with advanced dwarf mistletoe infection. Note the heavy contorted “witches’ brooms” in the lower branches. After long periods of infection, the needles become sparse and shorter.

The most obvious symptom of dwarf mistletoe infection is the dense, distorted growth of the branches, called witch’s brooms because they appear to be twisted or tied in knots. The shoots of ponderosa dwarf mistletoe are visible on the branch as

thick fingerlike growths extending out of the branch or trunk.

Mistletoe shoots are only reproductive structures with no photosynthetic function. Removing the shoots from a branch does not control dwarf mistletoe, except to temporarily halt seed production. Structures called sinkers, (analogous to roots in plants) embedded in the wood cause the damage, and the mistletoe plant continues to absorb the host tree’s water and nutrients. Shoots that are removed grow back in two or three years.

During the growing season, dwarf mistletoe shoots develop berries containing a seed. In August, the berries fill with water and explode, shooting the seed as far as 40 feet. Most seeds strike branches of the host tree and do not travel the full 40 feet, so the expansion of dwarf mistletoe pockets averages two feet per year.

When the seed strikes a branch, it germinates, and the sinkers penetrate the bark into the tree's conductive tissues. The growing mistletoe begins to steal the tree's food and water. The first visible symptom of infection is swelling in the branch at the site of the growing mistletoe plant, but nubs of the emerging shoots won't be visible for three years and a shoot won't bear its first seeds until seven years after. As seeds spread, all susceptible trees in the vicinity may become infected; it is extremely rare to find an isolated infected tree in the forest.

The tendency of mistletoe to infect all trees in a stand makes eradication difficult. No effective chemical treatment exists for mistletoe, and the only way to kill the parasite is to kill the host. In stands where only the susceptible species of tree exists, total eradication of the mistletoe would require a clearcut, which is unacceptable to most landowners.

Fortunately, mistletoe kills trees slowly, so it is not necessary to eradicate the parasite. The disease can be controlled by a program of thinning to increase tree vigor. Pruning the more heavily infected branches also helps, even if not all the mistletoe is eliminated. The final step in the process is to replant with non-susceptible species so that new trees will grow before the mistletoe kills the remaining trees.

The spread of mistletoe can be halted by a minimum 40-foot buffer zone between infected and non-infected trees. In this situation, cut 20 feet into non-infected trees to remove any mistletoe that is not yet visible; cut the remaining 20 feet into the infected stand. Non-infected trees outside the buffer should be checked each spring for mistletoe and any infected branches should be immediately pruned before seeds develop.

In forest stands with mixed tree species, it may be possible to eliminate all mistletoe by retaining only non-susceptible trees if they are in good health.

Dwarf mistletoe treatment is a complicated process that depends on the site conditions and the landowner's tolerance for cutting trees. In most cases, a combination of treatment methods will best suit the landowner's objectives. Consultation with a qualified forester is recommended to develop an effective and acceptable treatment plan.

MOUNTAIN PINE BEETLE

Mountain pine beetles are at endemic levels in the Black Forest. Most beetle activity is in stands with heavy infections of dwarf mistletoe that are weak and vulnerable to beetle attack. Beetles are also active in the burn scar where the fire weakened but did not kill the trees outright. Elsewhere in the forest, beetles kill isolated trees here and there.

Adult beetles fly and attack new trees from midsummer through the first frost. Females seek a large, weak tree in which to mate and lay eggs. Vigorous trees generate enough pitch to prevent the female from burrowing through the bark, and this attempt by the tree to prevent entry creates the pitch tubes symptomatic of beetle attack. Pitch tubes are **not** a particularly reliable indicator of a successful attack. If

pitch tubes are seen, check for reddish boring dust (fine sawdust) at the base of the tree and in the bark crevices. Boring dust is a more reliable indicator of successful attack.

Once a female penetrates the bark, she hollows out a circular mating chamber between the bark and the wood, releasing a pheromone (scent) to attract a mate. The pheromone also attracts additional females to the tree and the tree is attacked in mass. After mating, the female burrows up the trunk between the bark and wood laying eggs. She inoculates the tree with spores of blues-tain fungus, which provides food for the larvae. The fungus clogs the tissues that conduct water throughout the tree, leading to death within a few weeks.

Eggs hatch within a few days. The developing larvae feed horizontally from the maternal gallery over winter. The vertical maternal gallery and horizontal larval galleries are characteristic of the mountain pine beetle. The feeding larvae spread the bluestain fungus horizontally through the tree, and it becomes visible in the wood around February. The presence of bluestain is

absolute confirmation that beetles have successfully entered the tree. Woodpeckers feed on the larvae through the fall and winter. The holes made by woodpeckers are a visual clue to an infested tree. Untrained observers often are confused by the holes

woodpeckers make when they feed on beetle larvae and sapsuckers feed on the sap. Woodpecker feeding is characterized by random holes about one-half inch in diameter that make it appear as though the tree was peppered with a shotgun. Sapsuckers, on the other hand, make a small hole about one-eighth inch in diameter, and the holes are in straight lines or a grid pattern. Sapsuckers do not indicate the presence of beetles in the tree.

Although the tree is dead within a few weeks of successful attack, needles remain green until the following spring. Within the space of a few weeks, in late May or early June the tree will turn straw yellow and then reddish-brown. Once beetles invade a tree, nothing can be done to save it; the tree must be cut and disposed of in a way that will kill the beetles. No insecticide is available to kill beetles under the bark; thus, some sort of mechanical treatment is necessary. Any wood greater than four inches in diameter may harbor beetles and must be treated.

The following are treatment options for beetle-infested trees:



Boring dust on a ponderosa pine after bark beetle attack. The reddish-brown sawdust at the base of the tree and in the bark crevasses is a strong indication of successful beetle attack. Colorado State Forest Service
photo by David Leatherman

- The sawmill on the property is an effective treatment for any bark beetle (MPB or Douglas-fir beetle). Larval beetles are between the bark and the wood. When the trees are squared in the mill, the slabs dry and the beetles perish.
- Move all wood to a landfill or bury it under at least eight inches of dirt.
- Completely debark any wood that is larger than four inches in diameter.
- Chip or masticate the tree. Many tree services have chippers capable of chipping large diameter trees. The beetles are killed when the wood is chipped.
- Cover wood with at least six-mill clear plastic. This method, known as solar treatment, warms the wood to temperatures lethal to the larvae, and increases moisture, encouraging mold growth in the logs, which kills the beetles. Treat the wood properly for successful control. Cut into firewood lengths and stack no more than two logs high. Be sure there are no exposed stubs or sharp edges that might tear the plastic. Trench around the pile and, if possible, wet down the pile to encourage mold growth. Cover



Mountain pine beetle galleries under the bark of a ponderosa pine. The maternal beetle burrowed straight up the tree creating the central gallery. Larve feed horizontally creating the smaller side galleries A larva is in the upper right and a pupa is in the lower left. Note the blue stain in the wood.

the pile with plastic, push the edges of the plastic into the trenches, and seal the edges with duct tape. Check periodically to be sure the plastic has not torn. If torn, it can be repaired with duct tape.

It is best to check for infested trees in October of each year – remember that infested trees, although dead, are still green at this time. Pitch tubes and boring dust will be the most obvious clues. If infested trees are located early, there is adequate time to treat them.

While no insecticide effectively treats infested trees, spraying with insecticides such as carbaryl or permethrin prevents attack. Preventive sprays will not kill beetles under the bark. Spray trees between May 1st and July 1st each year for maximum effectiveness. It is not practical to spray every tree on a large tract of land, so choosing which trees to spray depends on the landowner's budget and the value of individual trees to the landowner. It is advisable to solicit bids from several different spray companies, as prices can vary widely. It also is wise to request and check references.

Preventative spraying should be done only if there is a serious threat from infested trees within a mile or less of the property. Preventative sprays kill predators of aphids. These predators keep aphids at low levels and trees can easily tolerate their feeding. Frequent preventative spraying

allows aphid populations to increase to concentrations where they may do serious injury or kill a tree outright.

Thinning forests for increased health and vigor by far is the best preventive measure for mountain pine beetles. Because trees require several years to respond to thinning, it is best done before beetles reach epidemic levels. Follow thinning guidelines for wildfire mitigation to reduce susceptibility to MPB.

IPS (ENGRAVER) BEETLES

There are several species of these small bark beetles that may infest ponderosa pine piñon pine or spruce. Piñon ips is active along the Highway 115 corridor south of Colorado Springs. The other species are always present in the forest but are not currently at epidemic levels. Ips beetles usually attack trees less than four inches in diameter and, in such circumstances, may be useful in thinning dense stands of young trees. Thus, it usually is not considered as threatening mountain pine beetle. Ips will attack larger trees if they are severely weakened by disease (most often dwarf mistletoe), or are damaged by construction, lightning strikes or in horse corrals where soil compaction injures the roots. Like the mountain pine beetle, ips burrow beneath the bark and inoculate the tree with bluestain fungus, and they often follow mountain pine beetles into larger trees.

The differences between mountain pine beetle and ips are significant to anyone implementing a forest management program. Ips become active in spring when the weather exceeds 50 degrees F, developing from egg to adult within eight weeks, and they continue to attack trees until the first frost. For this reason, preventive spraying should be done with permethrin or carbaryl in April and repeated in July. When spraying preventively for ips, it is important to spray the branches, as well as the trunk.



Ips attack causes no pitch tubes to form on live trees, so the only visual clue is boring dust or woodpecker holes in the trunk. Smaller trees quickly turn reddish-brown, but when they attack larger trees, ips often infest only the upper portion of the tree. The first symptom is browning of the top, but subsequent generations emerge and continue down the tree.

ponderosa pine slash indicates it has been invaded by ips beetles. Adult beetles will emerge in eight weeks if the slash is not properly treated. The reddish-brown boring dust on this branch indicates that it is infested with ips beetles.

Ips will infest green slash and downed logs from forest management projects. If slash is not promptly treated, ips will emerge to attack living trees; treat slash within four to six weeks after cutting. If weather conditions permit, thinning trees in winter when ips are dormant will prevent

problems with beetles in slash. However, slash cut after March 1 may still be green enough to attract ips when the weather warms.

Chipping slash will kill ips beetles. Lopping and scattering slash into lengths less than 24 inches promotes rapid drying and prevents infestation. Untreated slash left over the winter will produce live broods the following April. Due to their short lifecycle, solar treatment of ips-infested logs is ineffective. Bucking larger diameter logs and promptly splitting them into firewood accelerates the drying process and usually is effective in preventing ips infestations.

Many high value trees have been lost as a result of the common, and ultimately costly, practice of stacking firewood against green trees. Ips beetles will burrow out of infested firewood directly into standing trees.

DOUGLAS-FIR BEETLE

During the forest inventory, no Douglas-fir beetle infested trees were observed on the property, but the potential of attack is present. Some similarities exist between Douglas-fir beetle and MPB, but there are important differences that require different treatment strategies for infested trees.

Both species burrow under the bark to lay eggs and both carry blue stain fungus that kills the tree within a few weeks of infestation. Each beetle prefers dense stands with large diameter, low vigor trees; thus, thinning Douglas-fir for wildfire mitigation also reduces susceptibility to beetles.

Adult Douglas-fir beetles emerge in mid-June, and a few adults may overwinter in trees and emerge as early as April. There are no insecticides available for treatment of beetle infested trees. Infested trees should be treated prior to April of each year to prevent emergence of overwintering adults. Other effective treatments are whole tree chipping, debarking of all wood greater than four inches in diameter, transportation to a safe site or landfill, and burying under eight inches of dirt. Solar treatments should begin in the fall, preferably early fall.

Preventative spraying is an option for high value trees. Permethrin or carbaryl are effective as Douglas-fir beetle preventatives, but, because of the earlier emergence of overwintering adults, spraying should be done in April. Preventative sprays are not an effective treatment for infested wood.



Pitch streamers on the bark of a beetle-infested Douglas-fir. Not all infested trees will exhibit pitch. Trees should be checked for boring dust in the early fall.

Unlike MPB-infested trees, Douglas-fir trees do not form pitch tubes when attacked, so there may not be an obvious visual indication of infestation. Some Douglas-fir bleed sap when attacked, resulting in rivulets of sap on the trunk; however, this does not occur in all infested trees. Trees should be checked carefully for boring dust in early October. Later in the year, woodpecker holes may provide a visual clue that trees are infested.

Trees partially defoliated by western spruce budworm (see the following section) are particularly susceptible to attack by Douglas-fir beetles. Injury, overcrowding or any conditions that adversely affect the vigor of the tree will make it more susceptible. Managing the forest for open, vigorous stands of Douglas-fir is the best prevention.

References

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Memorandum

Title: First Reading of Ordinance No. 1025, An Ordinance Amending Section 13.36.100 of the Municipal Code

From: Frederick Rollenhagen, Planning Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 10 Minutes

June 3, 2025

Purpose:

To remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE), amendments to Titles 6, 13, 14, and 18 of the Municipal Code are being proposed to better address illegal discharges into the city's storm sewer system and waters of the State. Amendments to Title 13 are specifically to amend the definitions of "storm sewer system" and "storm water management system".

Background:

In March 2021, the City's stormwater consultant, Chavez Consulting Inc., LLC, conducted a baseline MS4 permit compliance evaluation for the City. The baseline compliance evaluation was an initial evaluation of existing MS4 regulatory mechanisms and program documentation compared to the compliance schedule found in Table 2 of the MS4 permit.

The evaluation had two goals:

1. Identify any issues that may exist relative to the compliance schedule found in Table 2 of the MS4 permit
2. Develop a report with recommendations on how to bring the City into compliance with its MS4 permit, if necessary.

A thorough review of the City's stormwater regulatory mechanisms and the Program Description Document (PDD) was conducted during the baseline compliance evaluation. Although Title 14 appeared to have been updated in 2019, the initial evaluation found several inconsistencies with MS4 permit requirements for construction oversight exemptions, inspection frequencies and inspection scopes. The PDD was determined to be significantly inadequate. These proposed code amendments are the City's follow-up on the recommendations included in the baseline compliance evaluation report. Initially, the Municipal Code will be updated to accurately reflect conditions included in the MS4 Permit. A new Program Description Document along with several



procedural documents will be developed after the Municipal Code is amended.

Pros and Cons:

Pros: Proposed revisions are necessary in order for the City to remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE).

Cons: If revisions are not made, the City will be out of compliance with its MS4 Permit.

Fiscal Impact:

The City received a \$20,000 matching grant from the Colorado Department of Local Affairs for this project. The \$20,000 match from the City has been allocated to the Planning Department's budget and is being drawn down during the 2024 and 2025 fiscal years as work is being accomplished.

Workload Impact:

This is a major project that was identified as a Planning Department goal for 2025 to complete. Staff secured the DOLA grant, advertised and hired the consultant, and has been working with the consultant in scheduling and holding staff meetings with other City Staff members, reviewing drafts, making and collecting comments on the draft, and recommending revisions. Additionally, staff scheduled and presented these draft revisions to the City Planning Commission for consideration and recommendation on April 9, 2025.

Recommended Action:

Move to approve on First Reading, Ordinance No. 1025, an ordinance amending Section 13.36.100 of the Municipal Code and set a public hearing for June 17, 2025, at 6:00 p.m., or as soon thereafter as the matter may be heard.

ORDINANCE

AN ORDINANCE AMENDING SECTION 13.36.100 OF THE MANITOU SPRINGS MUNICIPAL CODE REGARDING THE STORM WATER UTILITY

WHEREAS, the City desires to amend Section 13.36.100 of the City of Manitou Springs Municipal Code to update the definition of storm sewer system to make consistent with MS4 permit requirements.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

Section 1. Section 13.36.100 of the Manitou Springs Municipal Code is hereby repealed and reenacted to read as follows:

13.36.100 – Definitions.

As used in this article, unless the context in which they are used clearly requires otherwise:

Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, storm drains, and permanent stormwater quality or flood control structures); owned or operated by the City of Manitou Springs; designed or used for the collecting or conveying of stormwater; and is not a combined sewer and not part of a Publicly Owned Treatment Works (POTW).

Storm water management system means all of the structures that comprise the separate storm sewer system used by the city for the control of runoff.

Section 2. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 3. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 4. This ordinance shall take effect five (5) days after publication following final passage.

Passed on first reading and ordered published this 3rd day of June 2025.

City Clerk, Elena Krebs

A Public Hearing on this ordinance will be held at the June 17, 2025, City Council meeting. The Council Meeting will be held at 6:00 P.M. at City Hall, 606 Manitou Avenue, Manitou Springs, Colorado.

Ordinance Published:

City's Official Website and City Hall

Passed on second reading and adopted by Council this ____ day of June 2025.

Mayor, John Graham

Attest:

City Clerk, Elena Krebs

Chapter 13.36 STORM WATER UTILITY¹

Sections:

13.36.100 Definitions.

As used in this article, unless the context in which they are used clearly requires otherwise:

~~Storm water facilities means any one or more of various devices used in the collection, treatment or disposition of storm, flood or surface drainage waters, including man-made structures and natural watercourses, for the conveyance of runoff, such as detention areas, berms, swales, improved watercourses, channels, facilities, inlets, collection, drainage or disposal lines, intercepting sewers, joint storm and sanitary sewers, sewage disposal plants, outfall sewers, pumping plants and other equipment and appurtenances, and all extensions, improvements, remodeling, additions and alterations thereof; and any and all rights or interests in such sewerage or facilities.~~

Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, storm drains, and permanent stormwater quality or flood control structures); owned or operated by the City of Manitou Springs; designed or used for the collecting or conveying of stormwater; and is not a combined sewer and not part of a Publicly Owned Treatment Works (POTW).

Storm water management system means all of the ~~storm water facilities~~ structures that comprise the separate storm sewer -used system used by the city for the control of runoff.

(Ord. No. 2209, § 1, 1-5-2010)

13.36.110 Declaration of purpose.

The purpose of this chapter is to promote the public health, safety and welfare by minimizing flood losses and damage from storm water runoff; to establish a storm water utility to coordinate, design, construct, manage, operate and maintain the storm water management system; to establish a program to finance storm water management capital projects and operation, maintenance and administrative activities; and to encourage and facilitate the control of storm water, to reduce pollution and to enhance the environment.

(Ord. No. 2209, § 1, 1-5-2010)

13.36.120 Assessments—Rate.

Each individual water service shall be assessed at a monthly rate set by resolution of the city council.

¹Editor's note(s)—Ord. No. 2209, § 1, adopted January 5, 2010, amended the Code by repealing former Ch. 13.36, §§ 13.36.100—13.36.140, and adding a new Ch. 13.36. Former Ch. 13.36 pertained to storm drainage and flood management utility, and derived from Ord. 1087 of 1987.

(Ord. No. 0215, § 55, 2-3-2015; Ord. No. 2112, § 1, 12-18-2012)

Editor's note(s)—Ord. No. 2112, § 1, adopted December 18, 2012, amended the Code by repealing former § 13.36.120 and adding a new § 13.36.120. Formerly, § 13.36.120 pertained to storm water utility considered a city-owned enterprise, and derived from Ord. No. 2209, adopted January 5, 2010.

13.36.130 Storm water utility enterprise fund.

There is hereby established a storm water utility enterprise fund. All monies received from storm water utility fees shall be paid into such fund. Such fund shall be used only for capital improvements and operating expenses for storm drainage and flood management purposes, and shall not be used for general governmental purposes.

(Ord. No. 2209, § 1, 1-5-2010)

13.36.140 Storm water utility fee.

There is hereby imposed on each water utility account with the city a storm water utility fee. The amount of such fee shall be as set by the city council by resolution and may be changed from time to time.

(Ord. No. 2209, § 1, 1-5-2010)

13.36.150 Unpaid storm water utility fees—Lien.

All storm water utility fees shall be a lien upon the respective lots or parcels of land upon which they were imposed from the time when due and shall be a perpetual charge against such lots or parcels of land until paid, and in the event that charges are not paid when due, the city clerk shall certify such delinquent charges to the county treasurer and the charges shall be collected in the same manner as though they were part of the taxes.

(Ord. No. 2209, § 1, 1-5-2010)



Memorandum

Title: First Reading of Ordinance No. 1125, An Ordinance Repealing and Reenacting Title 14 of the Manitou Springs Municipal Code Concerning Stormwater Quality Management and Discharge Control

From: Frederick Rollenhagen, Planning Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 10 Minutes

June 3, 2025

Purpose:

To remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE), amendments to Titles 6, 13, 14, and 18 of the Municipal Code are being proposed to better address illegal discharges into the city's storm sewer system and waters of the State. Amendments to Title 14 contain the bulk of the proposed amendments to the Municipal Code. Title 14 is the City's Stormwater Quality Management and Discharge Control Code and is being entirely revised and updated to address; 1) applicable construction activity and applicable development sites, 2) plan review and exemptions, 3) inspections, 4) permanent stormwater quality management, 5) base design standards, and 6) long term operation and maintenance.

Background:

In March 2021, the City's stormwater consultant, Chavez Consulting Inc., LLC, conducted a baseline MS4 permit compliance evaluation for the City. The baseline compliance evaluation was an initial evaluation of existing MS4 regulatory mechanisms and program documentation compared to the compliance schedule found in Table 2 of the MS4 permit.

The evaluation had two goals:

1. Identify any issues that may exist relative to the compliance schedule found in Table 2 of the MS4 permit
2. Develop a report with recommendations on how to bring the City into compliance with its MS4 permit, if necessary.

A thorough review of the City's stormwater regulatory mechanisms and the Program Description Document (PDD) was conducted during the baseline compliance evaluation. Although Title 14 appeared to have been updated in 2019, the initial evaluation found several inconsistencies with MS4 permit requirements for construction



oversight exemptions, inspection frequencies and inspection scopes. The PDD was determined to be significantly inadequate. These proposed code amendments are the City's follow-up on the recommendations included in the baseline compliance evaluation report. Initially, the Municipal Code will be updated to accurately reflect conditions included in the MS4 Permit. A new Program Description Document along with several procedural documents will be developed after the Municipal Code is amended.

Pros and Cons:

Pros: Proposed revisions are necessary in order for the City to remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE).

Cons: If revisions are not made, the City will be out of compliance with its MS4 Permit.

Fiscal Impact:

The City received a \$20,000 matching grant from the Colorado Department of Local Affairs for this project. The \$20,000 match from the City has been allocated to the Planning Department's budget and is being drawn down during the 2024 and 2025 fiscal years as work is being accomplished.

Workload Impact:

This is a major project that was identified as a Planning Department goal for 2025 to complete. Staff secured the DOLA grant, advertised and hired the consultant, and has been working with the consultant in scheduling and holding staff meetings with other City Staff members, reviewing drafts, making and collecting comments on the draft, and recommending revisions. Additionally, staff scheduled and presented these draft revisions to the City Planning Commission for consideration and recommendation on April 9, 2025.

Recommended Action:

Move to approve on First Reading, Ordinance No. 1125, an ordinance repealing and reenacting Title 14 of the Manitou Springs Municipal Code concerning stormwater quality management and discharge control, and set a public hearing for June 17, 2025, at 6:00 p.m., or as soon thereafter as the matter may be heard.

ORDINANCE

**AN ORDINANCE REPEALING AND REENACTING TITLE 14 OF THE
MANITOU SPRINGS MUNICIPAL CODE CONCERNING
STORMWATER QUALITY MANAGEMENT AND DISCHARGE
CONTROL**

WHEREAS, a new Stormwater Quality Management and Discharge Control Code has been drafted and supported by the City Council of Manitou Springs;

WHEREAS, this revision establishes the regulatory mechanisms required by the MS4 permit to reduce or prevent the discharge of pollutants to the MS4 from applicable construction activities and applicable development sites that occur within the jurisdictional limits of the city.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

Section 1. Title 14 of the Manitou Springs Municipal Code is hereby repealed in its entirety and replaced with the Stormwater Quality Management and Discharge Code as set forth in **Exhibit A**.

Section 2. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 3. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 4. This ordinance shall take effect five (5) days after publication following final passage.

Passed on first reading and ordered published this 3rd day of June 2025.

City Clerk, Elena Krebs

A Public Hearing on this ordinance will be held at the June 17, 2025, City Council meeting. The Council Meeting will be held at 6:00 P.M. at City Hall, 606 Manitou Avenue, Manitou Springs, Colorado.

Ordinance Published:

City's Official Website and City Hall

Passed on second reading and adopted by Council this ____ day of June 2025.

Mayor, John Graham

Attest:

City Clerk, Elena Krebs

EXHIBIT A

Title 14

STORMWATER QUALITY MANAGEMENT AND DISCHARGE CONTROL

Chapters:

Chapter 14.01 GENERAL PROVISIONS

Sections:

14.01.010 Title.

This title shall be known as the Stormwater Quality Management and Discharge Control Code and may so be cited.

(Ord. 1507 § 1 (part), 2008)

14.01.020 Purpose.

The Federal Clean Water Act (CWA) establishes the National Pollutant Discharge Elimination System (NPDES), which is a permitting system that regulates point sources of pollution that discharge directly to a state water. Point sources of pollution are pipes and drains that flow directly to a state water and typically come from industries, some agricultural facilities, and municipalities. Storm sewer systems that discharge to a state water are point sources of pollution and require a permit. The Colorado Department of Public Health and Environment issued the first Municipal Separate Storm Sewer System (MS4) permits to small municipalities, including the City of Manitou Springs in 2003.

This chapter establishes the regulatory mechanisms required by the MS4 permit to reduce or prevent the discharge of pollutants to the MS4 from applicable construction activities and applicable development sites that occur within the jurisdictional limits of the city.

(Ord. 1507 § 1 (part), 2008)

14.01.030 Definitions.

The definitions below are intended strictly for clarification purposes and may not contain the full legal definition as per regulation. For the purposes of this chapter:

- A. Applicable Construction Activity: Construction activities with land disturbance (surface disturbing and associated activities) of one or more acres, or disturbing less than one acre if that construction activity is part of a larger common plan of development or sale that would disturb, or has disturbed one or more acres, unless excluded in section 14.02.020 of this code. Applicable construction activities include the land

disturbing activity and all activities and materials associated with the construction site and located at, or contiguous to, the land disturbing activities.

- B. Applicable Development Sites: Sites that result in land disturbance of greater than or equal to one acre, including sites less than one acre that are part of a larger common plan of development or sale, unless excluded below. Applicable development sites include all new development and redevelopment sites for which permanent water quality control measures were required in accordance with an MS4 permit. "New Development" means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision for a site that does not meet the definition of redevelopment.
- C. Base Design Standard: The minimum design standard for new and redevelopment before applying exclusions or alternative standards.
- D. Best Management Practices: Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "state surface waters". BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. For the purpose of this permit, the term BMP is used interchangeably with the term control measure, and can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.
- E. Common Plan of Development or Sale: A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The Division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile).
- F. Construction activity: Refers to ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is cleared, graded, or excavated as part of the repaving operation are considered construction activities unless they are an excluded site in section 14.04.010 of this code. Construction activity is from initial groundbreaking to final stabilization regardless of ownership of the construction activities.
- G. Construction Dewatering: Discharge of groundwater, surface water, and stormwater that has mixed with the groundwater and/or surface water (i.e. commingled stormwater runoff) that has come into contact with applicable construction activities.
- H. Construction Site – The location where construction activity is occurring and associated discharges are covered by this code, including offsite locations for storage, staging, etc. For use in this permit, the terms construction site, site, and facility are used interchangeably
- I. Contiguous: Within 0.25 miles.
- J. Control Measure: Any best management practice or other method used to prevent or reduce the discharge of pollutants to waters of the state. Control measures include, but are not limited to best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.
- K. Control Measure Requiring Routine Maintenance: Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent associated potential for failure during a runoff event. See also Inadequate control measure.
- L. Discharge: The discharge of pollutants as defined in section 25-8-103(3) C.R.S. For the purposes of this title, discharges do not include land application or discharges to the ground.
- M. Discharge of a Pollutant: The introduction or addition of a pollutant into state waters. See 25-8-103(3) C.R.S.
- N. Division: The Water Quality Control Division of the Colorado Department of Public Health and Environment.

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- O. Effluent Limitation: Any restriction or prohibition established under the Colorado Water Quality Control Act, state regulations, or federal law on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into state waters, including, but not limited to, standards of performance for new sources, toxic effluent standards and schedules of compliance.
 - P. Exclusion: A removal of the applicability of the terms or conditions in this title from applying to the given conditions.
 - Q. Exemption: An exemption, waiver, or variance implemented by the city for city control measures used to meet the effluent limits in the MS4 permit.
 - R. Final Stabilization: The condition reached when all ground surface disturbing activities at the site have been completed, and for all areas of ground surface disturbing activities a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre- disturbance levels, or equivalent permanent, physical erosion reduction methods have been installed.
 - S. Good Engineering, Hydrologic and Pollution Control Practices: Methods, procedures, and practices that:
 - 1. Are based on basic scientific fact(s).
 - 2. Reflect best industry practices and standards.
 - 3. Are appropriate for the conditions and pollutant sources.
 - 4. Provide appropriate solutions to meet the associated permit requirements, including practice based and numeric effluent limits.
 - T. Green infrastructure: Generally, refers to control measures that use vegetation, soils, and natural processes or mimic natural processes to manage stormwater. Green infrastructure can be used in place of or in addition to low impact development principles.
 - U. Illicit Discharge: Any discharges to an MS4 that is not composed entirely of stormwater except discharges specifically authorized by a CDPS or NPDES permit and discharges resulting from emergency firefighting activities. Please refer to Title 6 of the municipal code for a complete definition of illicit discharge.
 - V. Impervious Area: Developed areas with covering or pavement that prevents the land's natural ability to absorb and infiltrate typical precipitation and irrigation events. Impervious areas include, but are not limited to; roof tops, walkways, patios, driveways, parking lots, impervious storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering.
 - W. Inadequate Control Measure: Any control measure that is not designed, implemented, or operating in accordance with the requirements of this title, and implemented and maintained to operate in accordance with the design specifications. See also Control measure Requiring Routine Maintenance.
 - X. Land Disturbing Activity: Any activity that results in a change to the existing land surface (both vegetative and non-vegetative). Land disturbing activities include, but are not limited to clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity.
 - Y. Minimize: For purposes of implementing control measures of this chapter, means reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable considering best industry practices.
 - Z. MS4: A municipal separate storm sewer system. See municipal separate storm sewer system.
 - AA. Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
 - 1. Owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;
 - 2. Designed or used for collecting or conveying stormwater;

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3. Which is not a combined sewer; and
 4. Which is not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).
- BB. Municipal Separate Storm Sewer System Outfall (Outfall): A point source, as defined herein, at the point where a municipal separate storm sewer discharges to state waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other state waters and are used to convey state waters.
- CC. New Development: Land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision for a site that does not meet the definition of redevelopment.
- DD. Non-Structural Control Measures: Includes control measures that are not structural control measures, and include, but are not limited to, control measures that prevent or reduce pollutants being introduced to water or that prevent or reduce the generation of runoff or illicit discharges.
- EE. Owner: The person or entity who is responsible for the overall operation of the facility or activity from which the associated discharge originates.
- FF. Pavement Management Sites: Sites, or portions of sites, for the rehabilitation, maintenance, and reconstruction of pavement, which includes roadway resurfacing, mill and overlay, white topping, black topping, curb and gutter replacement, concrete panel replacement, and pothole repair. The purpose of the site is to provide additional years of service life and optimize service and safety. The site also must be limited to the repair and replacement of pavement in a manner that does not result in an increased impervious area and the infrastructure must not substantially change. The types of sites covered under this exclusion include day-to-day maintenance activities, rehabilitation, and reconstruction of pavement.
- GG. Permanent Control Measure (PCM): Control measures designed to permanently mitigate stormwater quality impacts from applicable development sites.
- HH. Point Source: Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).
- II. Pollutant: Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).
- JJ. Pollution: Man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. See 5 CCR 1002-61.2(77)
- KK. Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater control measures implemented to meet the requirements of this permit.
- LL. Redevelopment: Includes a site that is already substantially developed and has 35% or more of existing hard surface coverage, the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.
- MM. Regulatory Mechanism: The mechanisms that allow the city to implement and enforce the requirements of this title.
- NN. Roadway: Roads and bridges that are improved, designed or ordinarily used for vehicular travel and contiguous areas improved, designed or ordinarily used for pedestrian or bicycle traffic, drainage for the roadway, and/or parking along the roadway. Areas primarily used for parking or access to parking are not included.

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- OO. Site Plan: Also known as construction stormwater site plans, sediment and erosion control plans, stormwater pollution prevention plans, drainage reports, drainage plans, stormwater management plans, drainage and erosion control plans, etc.
- PP. Stormwater: Stormwater runoff, snow melt runoff, and surface runoff and drainage caused by precipitation.
- QQ. Structural Control Measures: Includes control measures that are comprised of facilities and structures that remove pollutants from water or retain, reuse, or provide for infiltration or evaporation of water.
- RR. Water Quality Capture Volume (WQCV): The volume equivalent to the runoff from an 80th percentile storm, meaning that 80 percent of the most frequently occurring storms are fully captured and treated, and larger events are partially treated.
- SS. Water Quality Standards: Any standard promulgated pursuant to section 25-8-204 C.R.S. For purposes of this permit, water quality standards are a narrative and/or numeric restriction established by the Water Quality Commission applied to state surface waters to protect one or more beneficial uses of such waters. Whenever only numeric or only narrative standards are intended, the wording shall specifically designate which is intended. See 5 CCR 1002- 31.5(37).
- TT. Waters of the State of Colorado: Any and all surface waters and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed. This definition can include water courses that are usually dry.

14.01.040 Criteria Incorporated by Reference

The chapters of this title, when combined with the following documents, their amendments and successors form the criteria used for protecting stormwater quality during construction and development activity in the city. These criteria shall be used for the planning, design and construction of permanent control measures.

- The City of Colorado Springs Drainage Criteria Manual Volume 1 (DCMV1), May 2014, revised January 2021)
- The City of Colorado Springs Drainage Criteria Manual Volume 2 (DCMV2), May 2014, revised December 2020.
- The City of Colorado Springs Stormwater Construction Manual (SCM) Appendix E (latest version and approved alternatives).
- The Mile High Flood Control District (MHFD) Urban Stormwater Drainage Criteria Manual (USDCM) Volumes 1 through 3 (latest versions).

Chapter 14.02 GRADING AND EROSION CONTROL PERMIT

Sections:

14.02.010 Permit Requirements.

It is unlawful to initiate any land disturbing activities that meet the definition of applicable construction activities or applicable development site without first obtaining a Grading and Erosion Control Permit pursuant to the requirements of this Chapter and Title 18.

- A. Permit Application. Grading and Erosion Control permit submittals shall follow the general application procedures in Section 18.06.3 of Title 18. Applicants shall make an application to the Planning Department in accordance with the Grading and Erosion Control Permit Checklist. Grading and Erosion Control Plan submittals for applicable construction activities shall be developed by a professional engineer licensed to operate in the state of Colorado, consistent with content requirements of the Grading and Erosion Control Plan checklist. A copy of the Grading and Erosion Control Plan Checklist can be obtained at the Planning Department.
- B. Stormwater Management Plan. A Stormwater Management Plan (SWMP) shall be developed and submitted with a Grading and Erosion Control Plan for all applicable construction activities and applicable development sites. A Stormwater Management Plan (SWMP) is a plan developed in compliance with the content requirements of Stormwater Management Plan Checklist. A copy of the SWMP Checklist can be obtained from the Planning Department.

The SWMP shall be a separate, standalone document from the engineering plan set. The purpose of the SWMP is to develop and document a systematic approach to identify possible pollutant sources that may contribute pollutants to stormwater, and identify construction control measures that, when implemented, will prevent or reduce the discharge of pollutants to state waters. The SWMP shall be completed and implemented prior to beginning ground disturbing activities, and revised as construction proceeds to accurately reflect the conditions and practices at the site. Revisions must be made to the SWMP before changes are made in the field. A map showing the current location, status and changes to the control measures are required. The owner or his representative shall keep records of the control measures as they are installed or removed according to the SWMP. The SWMP shall be developed by a Qualified Stormwater Manager.

- C.
- C. Notice to Proceed. No work shall begin on an approved Grading and Erosion Control Permit until a Notice to Proceed is issued by the Planning Director or their designee. A Notice to Proceed will be issued after all necessary approvals are issued by the Planning Director, all fees are paid, and financial assurance is received when applicable, and the installation of initial control measures are verified by a City inspector, Starting work without a Notice to Proceed may result in an immediate Stop Work Order issued by the Planning Director.

14.02.020 Exclusions.

- A. Construction activities may be excluded from the definition of applicable construction activity only when the Division waives requirements for stormwater discharges associated with small construction activity in accordance with Regulation 61.3(2)(f)(ii)(B) (the “R-Factor” waiver).
- B. Construction activities do not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of a facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine

maintenance. Repaving activities where underlying and/or surrounding soil is cleared, graded, or excavated as part of the repaving operation are considered construction activities and are not excluded.

14.02.030 Permit Conditions.

The following additional requirements apply to applicable construction activity. Appropriate control measures must be implemented prior to the start of construction activity, must control potential pollutants during each phase of construction, and must be continued through final stabilization. Appropriate structural control measures must be maintained in operational condition.

- A. Control measures must be selected, designed, installed, implemented, and maintained to provide control of all potential pollutants, such as but not limited to sediment, construction site waste, trash, discarded building materials, concrete truck washout, chemicals, sanitary waste, and contaminated soils in discharges to the MS4 or waters of the state. At a minimum pollutant sources associated with the following activities (if part of the applicable construction activity) must be addressed:
1. Land disturbance and storage of soils
 2. Vehicle tracking
 3. Loading and unloading operations
 4. Outdoor storage of construction site materials, building materials, fertilizers, and chemicals
 5. Bulk storage of materials
 6. Vehicle and equipment maintenance and fueling
 7. Significant dust or particulate generating processes
 8. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, and oils
 9. Concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment
 10. Dedicated asphalt and concrete batch plants.
 11. Other areas or operations where spills can occur.
 12. Other non-stormwater discharges including construction dewatering not covered under the Construction Dewatering Discharges general permit and wash water that may contribute pollutants to the MS4.
- B. Correction of Deficiencies. The project owner is responsible for ensuring and documenting that control measures are maintained and are operating as intended by the design specifications. Control measures must be routinely maintained in accordance with good engineering, hydrologic and pollution control practices. When there is a failure to implement control measures or a control measure has failed or is determined by the Qualified Stormwater Manager to be an inadequate control measure, it must be addressed as soon as possible, immediately in most cases to minimize

the discharge of pollutants. All corrective actions for control measures must be completed within 3 calendar days after the noncompliance issue is first identified.

14.02.040 Permit Inspections.

Inspections of applicable construction activities are conducted by the City Inspectors to ensure compliance with the GEC Plan and the SWMP. The focus of construction sites inspections is to ensure construction is following the approved plans and that control measures are installed and maintained consistent with the onsite SWMP to prevent non-stormwater discharges from leaving the site and create negative public safety, property or stormwater quality impacts.

The following inspections may be performed at applicable construction activity in the City. Not all inspection types may be performed at all sites.

- A. Initial Inspections. Initial inspections are performed by a City Inspector to confirm that the initial control measures are implemented according to the approved GEC Plan. The initial inspection also serves to establish contact between inspectors and the site personnel responsible for implementing the approved plans. No land disturbance or construction activities may occur prior to the initial inspection, with the exception of initial control measure installation. No stockpiling of materials is permitted prior to the initial inspection. The City Inspector will verify all initial Control Measures have been properly installed, take pre-disturbance photographs, and discuss self-inspection requirements with the Qualified Stormwater Manager. Dewatering measures will be discussed, including State dewatering permit requirements as applicable.
- B. Self-Inspections. The project owner is required to conduct self-inspections of applicable construction activity. The purpose of these inspections is to ensure that all control measures are installed according to the approved plans, appropriate for the intended use, operating effectively, and are properly maintained. The self-inspections shall be conducted by a Qualified Stormwater Manager. There are two options for conducting self-inspections.
 - 1. A thorough inspection shall be conducted at least once every 14 calendar days and after storm events. Post-storm event inspections must be conducted within 24 hours following the end of any precipitation or snowmelt event that causes surface erosion. The post-storm inspections may be used to fulfill the 14-day routine inspection requirement.
 - 2. The Qualified Stormwater Manager may choose to perform self-inspections every 7 calendar days without the requirement for post-storm event inspections. The self-inspection schedule must be identified in the self-inspection reports. A more frequent inspection schedule than this minimum may be necessary to ensure that Control Measures continue to operate intended. Site conditions such as steep grades and close proximity to a water of the state are reasons for increasing the frequency of self-inspections.

The Qualified Stormwater Manager shall retain copies of all self-inspection reports on site during active construction and provide them to the City upon request.

- C. Reduced Frequency Inspections. The Qualified Stormwater Manager may perform self inspections at a minimum of one inspection every thirty (30) days when the following conditions are met.
 - 1. All construction activities resulting in ground disturbance are complete;

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2. All activities required for final stabilization, identified in the stormwater management plan are completed, with the exception of the application of sod or seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
 3. The stormwater management plan has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.
- D. City Oversight Inspections. Applicable construction activities shall be inspected by a City Inspector (Planning or Public Works) during construction and until final stabilization is achieved. City oversight inspections shall be performed at all applicable construction activities for the purpose of assuring compliance with the City's MS4 Permit. Inspections performed by City Inspectors do not fulfill the requirement for Self-Monitoring Inspections to be conducted by the project owner. City inspections will include observations and documentation of control measures and permanent stormwater control facilities for conformance with the SWMP, approved construction drawings and the GEC Plan. During a City inspection the site is assessed for general compliance with the permit, overall site management, and record-keeping.

The City may conduct the following types of inspections: Routine Inspections, Compliance Inspections, Complaint Response Inspections, Inactive Site Inspections, Staff Vacancy Inspections and Indicator Inspections. Not all inspection types may be performed at all sites. For all inspections conducted by the City inspectors, a copy of the completed inspection report will be provided to the project owner and Qualified Stormwater Manager typically within two (2) business days following the inspection.

1. Routine Inspections. Routine Inspections are conducted to assess control measures, pollutant sources, and discharge points. During a Routine Inspection, any failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be evaluated to determine if any non-allowable discharges have occurred. Discharge points to the MS4 and adjacent property will be evaluated to determine if any non-allowable discharges have occurred. The removal of pollutants will be required, when feasible, if a failure to implement a control measure, or an inadequate control measure results in an off-site discharge of pollutants.

During a Routine Inspection, the City Inspector may review all Self-Monitoring Inspection reports for accuracy and completeness. In addition, the SWMP and GEC Plan may be reviewed to ensure the plans reflect current site conditions.

Routine Inspections are conducted at least once every 45 days.

2. Compliance Inspections. Compliance Inspections are conducted as a follow up to an Illicit Discharge, or a previously documented failure to implement a control measure, or an inadequate control measure. During Compliance Inspections the City Inspector shall verify if corrective actions have been completed on sites where an Illicit Discharge, a failure to implement a control measure, or an inadequate control measure was documented in the previous inspection report,

A compliance inspection, or alternative inspection listed below, must identify if corrections have been completed on sites where the permittee has documented an illicit discharge or failure to implement a control measure or an inadequate control measure during the previous inspection.

One of the following, that incorporates this required scope, may be performed or required in lieu of a compliance inspection within 14 days of the permittee site inspection identifying that there is a failure to implement a control measure or an inadequate control measure:

- i. Routine inspection in accordance with paragraph 1 above;
- ii. Indicator Inspection in accordance with paragraph 4.c. below; or
- iii. Operator Compliance Inspection: The City requires the operator to inspect and report that the corrective actions are complete as necessary to meet the requirements of the permit. The operator report must include photographs of the new/adequate control measure(s).

Compliance Inspections are conducted within 14 days of the previous inspection, unless the necessary corrections were made and observed by the City Stormwater Inspector during the previous inspection when the compliance issue was observed.

3. Complaint Response Inspections. Complaint Response Inspections are conducted in response to a complaint received by the City. Complaint Response Inspections are conducted to assess control measures, pollutant sources, and discharge points. During a Complaint Response Inspections, any failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be evaluated to determine if any non-allowable discharges are occurring. Discharge points to the MS4 or adjacent property will be evaluated to determine if an Illicit Discharge has occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.
4. Reduced Site Inspections. Reduced Site Inspections are conducted by City Stormwater Inspectors at the frequency indicated below:
 - a. Inactive Site Inspections. Inactive Site Inspections are conducted on sites where land disturbing activities are complete and pending growth of vegetation for final stabilization, or for sites where no construction activity has occurred since the last inspection. During an Inactive Site Inspection, failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be inspected to determine if any non-allowable discharges have occurred. Discharge points to the MS4 or adjacent property will be evaluated to determine if any non-allowable discharge has occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

Inactive Site Inspections are conducted at least once every 90 days.
 - b. Staff Vacancy Inspection. Staff Vacancy Inspections are conducted as needed to accommodate a City staff vacancy or leave due to vacation or illness. During a Staff Vacancy Inspection, failures to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be evaluated to determine if any non-allowable discharges have occurred. Discharge points to the MS4 and adjacent property will be evaluated to determine if any non-allowable discharges have occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

Staff Vacancy Inspections are conducted at least once every 90 days.

- c. Indicator Inspection. Indicator inspections are a drive-by or screening, conducted to assess sites for indicators of noncompliance and do not fully assess the adequacy of control measures and overall site management. Before an indicator inspection may be conducted, a routine inspection of an applicable construction activity must first occur. During this inspection the perimeter of a site will be evaluated for indicators of failure to implement, and inadequate control measures. Discharge points to the MS4 and adjacent property will be evaluated to determine if any non-allowable discharges have occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

Indicator inspections may be conducted at least once every 14 days with a routine inspection conducted at least once every 90 days.

- E. Final Inspection. When a request to terminate a Grading and Erosion Control Permit is received by the Planning Director the City and the Qualified Stormwater Manager will conduct a final inspection of the site to determine if the conditions for permit termination are met.

Final inspections are also used by the City to determine if permanent control measures are constructed according to approved plans; and to determine if:

- Any sediment or other pollutant that may have been transferred off-site has been removed.
- All PCMs have been maintained and are functioning in accordance with the design and the O&M Manual.
- As-Built Drawings are accurate and provided to the City.
- All CCMs have been removed from the site.
- Streets, parking lots and other paved surfaces (on-site and off-site) are free of sediment and debris.
- Drainage structures such as pipes, inlets and channels are clean and in good service.
- The site is in compliance with all required corrective action identified during previous Inspections.
- A copy of the CDPHE Colorado Discharge Permit System Notice of Termination, Permit Modification Certification, or Permit Transfer Certification is provided to the City.

14.02.050 Permit Termination.

A request to terminate a Grading and Erosion Control Permit for an applicable construction activity must be submitted by the project owner to the Planning Director, after a site establishes final stabilization. The following conditions must be met for approval to terminate the permit.

- A. All construction activities at the site are complete and no further land disturbing activities will occur.

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- B. For all areas where ground surface disturbing activities occurred a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

For sites using vegetation cover as a final stabilization method the following criteria shall be met.

1. The vegetation may include perennial grasses, plants, shrubs and trees consistent with regionally approved seed mixes.
2. Individual plant density equivalent to 70% of pre-disturbance levels shall be evenly distributed and be based on a locally representative location that is undisturbed.
3. Noxious weeds shall not be present.

Following the Final Inspection, the City Inspector will send the owner a Final Inspection Report. Once all Final Inspection Report findings have been addressed, the City will provide the owner a written Notice of Termination stating that the GEC Permit has been terminated.

All Self-Monitoring and City Inspections shall cease at Permit Termination.

14.02.060 Other Permits.

The project owner is responsible for ensuring all other applicable, local, state and federal permits are obtained prior to initiating land disturbing activities. Construction sites meeting the definition of applicable construction activity also meet the applicability requirements of the Colorado Discharge Permit System (CDPS) Stormwater Discharges Associated with Construction Activity (COR400000) permit. Projects that require construction dewatering require additional CDPS permit coverage for that activity. Sites occurring in a live stream or within a designated floodplain may also be subject to additional local and federal permitting requirements.

14.03 Grading and Erosion Control Plan

A Grading and Erosion Control Plan (GEC Plan) meeting the requirements of this Title shall be submitted with all applications for a Grading and Erosion Control Permit for applicable construction activities and applicable development sites. The GEC Plan shall be developed, signed and stamped by a professional engineer licensed to work in Colorado. The GEC Plan shall be developed to include all the required elements and standard notes identified in the Grading and Erosion Control Plan Checklist provided by the Planning Department.

14.04 Permanent Stormwater Management.

All applicable development sites shall have operational permanent stormwater quality control measures at the completion of the site. In the case where permanent water quality control measures are part of future phasing, the owner must have a mechanism to ensure that all control measures will be implemented, regardless of completion of future phases or site ownership. In such cases, temporary water quality control measures must be implemented as feasible and maintained until removed or modified. All stormwater water quality control measures must meet one of the base design standards of this Chapter.

14.04.01 Exclusions.

The following sites may be excluded from the definition of applicable development site.

- A. **Pavement Management Sites:** Sites, or portions of sites, for the rehabilitation, maintenance, and reconstruction of roadway pavement, which includes roadway resurfacing, mill and overlay, white topping, black topping, curb and gutter replacement, concrete panel replacement, and pothole repair. The purpose of the site must be to provide additional years of service life and optimize service and safety. The site must be limited to the repair and replacement of pavement in a manner that does not result in an increased impervious area and the infrastructure must not substantially change. The types of sites covered under this exclusion include day-to-day maintenance activities, rehabilitation, and reconstruction of pavement. Roadways include: roads and bridges that are improved, designed or ordinarily used for vehicular travel, and contiguous areas improved, designed and ordinarily used for pedestrian or bicycle traffic; drainage for the roadway; and/or parking along the roadway. Areas used primarily for
- B. **Excluded Roadway Redevelopment:** Redevelopment sites for existing roadways, when one of the following criteria is met:
 - 1. The site adds less than 1 acre of paved area per mile of roadway to an existing roadway, or
 - 2. The site does not add more than 8.25 feet of paved width at any location to the existing roadway.
- C. **Excluded Existing Roadway Areas:** For redevelopment of existing roadways, only the area of the existing roadway is excluded from the requirements of an applicable development site when the site does not increase the width by two times or more, on average, of the original roadway area. The entire site is not excluded from being considered an applicable development site for this exclusion. The area of the site that is part of the added new roadway area is still an applicable development site.
- D. **Aboveground and Underground Utilities:** Activities for installation or maintenance of underground utilities or infrastructure that does not permanently alter the terrain, ground cover, or drainage patterns from those present prior to the construction activity. This exclusion includes, but is not limited to, activities to install, replace, or maintain utilities under roadways or other paved areas that return the surface to the same condition.
- E. **Large Lot Single Family Sites:** A single-family residential lot, greater than or equal to 2.5 acres in size per dwelling and having a total lot impervious area of less than 10 percent. A total lot imperviousness greater than 10 percent is allowed when a study specific to the watershed and/or MS4 shows that expected soil and vegetation conditions are suitable for infiltration/filtration of the WQCV for a typical site, and the permittee accepts such study as applicable within its MS4 boundaries. The maximum total lot impervious covered under this exclusion shall be 20 percent.
- F. **Non-Residential and Non-Commercial Infiltration Conditions:** This exclusion does not apply to residential or commercial sites for buildings. This exclusion applies to applicable development sites for which post-development surface conditions do not percentile stormwater runoff event. In addition, post-development surface conditions must not be projected to result in a

surface water discharge from the 80th percentile stormwater runoff events. percentile event must be infiltrated and not discharged as concentrated flow. For this exclusion to apply, a study specific to the site, watershed and/or MS4 must be conducted. The study must show rainfall and soil conditions present within the permitted area; must include allowable slopes, surface conditions, and ratios of impervious area to pervious area; and the permittee must accept such study as applicable within its MS4 boundaries.

- G. Sites with Land Disturbance to Undeveloped Land that will Remain Undeveloped: Permittees may exclude sites with land disturbance to undeveloped land (land with no human-made structures such as buildings or pavement) that will remain undeveloped after the site.
- H. Stream Stabilization Sites: Permittees may exclude stream stabilization sites.
- I. Trails: Bike and pedestrian trails are excluded. Bike lanes for roadways are not included in this exclusion, unless attached to a roadway that qualifies under another exclusion in this section.

14.04.02 Base Design Standards.

The City's oversight for applicable development sites shall be implemented to address the selection, installation, implementation, and maintenance of control measures in accordance with requirements of the MS4 permit. The "base design standard" is the minimum design standard for new development and redevelopment. The permanent control measures for applicable development sites shall meet one of the following base design standards.

- A. WQCV Standard: The control measure(s) is designed to provide treatment and/or infiltration of the WQCV and:
 - 1. 100% of the applicable development site is captured, except the owner may exclude up to 20 percent, not to exceed 1 acre of the applicable development site area when the City has determined that it is not practicable to capture runoff from portions of the site that will not drain towards control measures. In addition, the owner must also determine that the implementation of a separate control measure for that portion of the site is not practicable (e.g., driveway access that drains directly to the street).
 - 2. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the control measure implemented. Consideration of drain time shall include maintaining vegetation necessary for operation of the control measure (e.g., wetland vegetation).
- B. Pollutant Removal Standard: The control measure(s) is designed to treat at a minimum the 80th percentile storm event. The control measure(s) shall be designed to treat stormwater runoff in a manner expected to reduce the event mean concentration of total suspended solids (TSS) to a median value of 30 mg/L or less.

100% of the applicable development site is captured, except the owner may exclude up to 20 percent not to exceed 1 acre of the applicable development site area when the owner has determined that it is not practicable to capture runoff from portions of the site that will not drain towards control measures. In addition, the owner must also determine that the implementation of a separate control measure for that portion of the site is not practicable (e.g., driveway access that drains directly to the street).

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- C. **Runoff Reduction Standard:** The control measure(s) is designed to infiltrate into the ground where site geology permits, evaporate, or evapotranspire a quantity of water equal to 60% of what the calculated WQCV would be if all impervious area for the applicable development site discharged without infiltration.

This base design standard can be met through practices such as green infrastructure. “Green infrastructure” generally refers to control measures that use vegetation, soils, and natural processes or mimic natural processes to manage stormwater. Green infrastructure can be used in place of or in addition to low impact development principles.

- D. **Applicable Development Site Draining to a Regional WQCV Control Measure:** The regional WQCV control measure must be designed to accept the drainage from the applicable development site. Stormwater from the site must not discharge to a water of the state before being discharged to the regional WQCV control measure. The regional WQCV control measure must meet the requirements of the WQCV in B.1.above.
- E. **Applicable Development Site Draining to a Regional WQCV Facility:** The regional WQCV facility is designed to accept drainage from the applicable development site. Stormwater from the site may discharge to a water of the state before being discharged to the regional WQCV facility. Before discharging to a water of the state, at least 20 percent of the upstream imperviousness of the applicable development site must be disconnected from the storm drainage system and drain through a receiving pervious area control measure comprising a footprint of at least 10 percent of the upstream disconnected impervious area of the applicable development site. The control measure must be designed in accordance with a design criteria included in this Title. In addition, the stream channel between the discharge point of the applicable development site and the regional WQCV facility must be stabilized.

The regional WQCV facility must meet the following requirements:

1. The regional WQCV facility must be implemented, functional, and maintained following good engineering, hydrologic and pollution control practices.
2. The regional WQCV facility must be designed and maintained for 100% WQCV for its entire drainage area.
3. The regional WQCV facility must have the capacity to accommodate the drainage from the applicable development site.
4. The regional WQCV facility be designed and built to comply with all assumptions for the development activities planned by the permittee within its drainage area, including the imperviousness of its drainage area and the applicable development site.
5. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the facility. Consideration of drain time shall include maintaining vegetation necessary for operation of the facility (e.g., wetland vegetation).
6. The permittee shall meet the requirements in Parts I.E.4.a.v. and vii. and Part I.E.4.b. of the City MS4 Permit for the regional WQCV facility consistent with requirements and actions for control measures.
7. The regional WQCV facility must be subject to the City’s authority.
8. Regional Facilities must be designed and implemented with flood control or water quality as

the primary use. Recreational ponds and reservoirs may not be considered Regional Facilities. Water bodies listed by name in surface water quality classifications and standards regulations (5 CCR 1002-32 through 5 CCR 1002-38) may not be considered regional facilities.

F. Constrained Redevelopment Sites Standard.

1. Applicability: the design standards in this paragraph may be used for sites meeting the following constrained redevelopment sites criteria.
 - a. The applicable redevelopment site is for a site that has greater than 75% impervious area, and
 - b. The City has determined that it is not practicable to meet any of the base design standards of this section. The City's determination shall include an evaluation of the applicable redevelopment site's ability to install a permanent control measure without reducing surface area covered with the structures.
2. Constrained Redevelopment Sites Design Standard. The control measure(s) is designed to meet **one** of the following:
 - a. Provide treatment of the WQCV for the area captured. The captured area shall be 50% or more of the impervious area of the applicable redevelopment site. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the control measure implemented,
 - b. The control measure(s) is designed to provide for treatment of the 80th percentile storm event. The control measure(s) shall be designed to treat stormwater runoff in a manner expected to reduce the event mean concentration of total suspended solids (TSS) to a median value of 30 mg/L or less.
 - c. A minimum of 50% of the applicable development area including 50% or more of the impervious area of the applicable development area shall drain to the control measure(s). This standard does not require that 100% of the applicable redevelopment site area be directed to control measure(s) as long as the overall removal goal is met or exceeded (e.g., providing increased removal for a smaller area), or
 - d. Infiltrate, evaporate, or evapotranspiration, through practices such as green infrastructure, a quantity of water equal to 30% of what the calculated WQCV would be if all impervious area for the applicable redevelopment site discharged without infiltration.

14.04.03 Financial Surety.

Grading and Erosion Control Plans that include the construction of public and private development improvements shall be required to provide financial security pursuant to Title 18. The financial surety amount shall be determined by the engineer of record and based on the current Financial Assurance Estimate form provided by El Paso County. The owner shall submit financial security to the Planning Department prior to the approval of the Grading and Erosion Control Permit.

14.04.04 Final As-built Drawings.

All GEC Plans that include the construction of public and private development improvements shall provide Final As-built construction drawings for all public improvements and public and private permanent stormwater quality control structures. The final as-built drawings shall document the final configurations for all improvements as they were constructed. The professional engineer of record, registered in the State of Colorado shall certify the final as-built plans. If no significant or material changes occurred between the approved plans and final construction, the owner may submit a letter from the engineer of record certifying conformance with the approved plans and construction drawings. In this case, record drawings are not required to be submitted to the Planning Department.

14.04.05 Permanent Control Measure Operation, Maintenance and Access.

The MS4 Permit requires the City to ensure the long-term operation and maintenance of permanent stormwater quality control measures. The City must implement inspection and acceptance procedures to ensure that PCMs are constructed, implemented, and operate in accordance with the approved GEC Plan, construction drawings and drainage report. All applicable development sites shall have operational permanent water quality control measures at the completion of the site.

- A. Confirmation that post-construction stormwater quality control measures operate according to approved plans occurs through the use of an inflow hydrograph routed through a basin model. This analysis and the resulting hydrograph shall be performed by the Engineer of Record for the owner or authorized agent of the applicable development site and provided with Final Drainage Report included in the development plan submitted to the Planning Department. If the Planning Director determines that significant changes to the approved plans are identified in the "as-built" drawings, an additional inflow hydrograph based on the "as-built" changes shall be provided to the City to confirm that the changes made during construction did not negatively alter the effective operation of the control measure.
- B. Ownership. Permanent stormwater management infrastructure, including but not limited to storm drain inlets, swales, channels, pipes, and PCMs located on private property shall be owned and operated by the owner of the property on which the structures are located.
- C. Easement. Prior to approval of a subdivision or issuance of a Certificate of Occupancy, owners of applicable development sites with permanent stormwater quality control measures, shall submit to the Planning Department a signed private maintenance and access agreement for all permanent control measures that were constructed. This agreement shall be submitted to and recorded by the El Paso County Clerk and Recorder. The City uses these agreements as the primary mechanism to ensure the long-term operation and maintenance of post construction stormwater quality control measures. The agreement shall also provide for access by the City for inspection and repair if required. The agreement templates are available through the Planning Department.
- D. Operation and Maintenance Manual. A detailed Operation and Maintenance Manual covering inspections, operation and maintenance of permanent BMPs shall be provided to the person responsible for the Private Maintenance Agreement for Permanent BMPs. The Operation and Maintenance Manual shall include specifics on frequency of inspections and maintenance; standards

for vegetation or structures, such as species of vegetation, mowing height, revegetation of worn or eroded areas, cleaning methods; depth of sediment requiring removal; replacement frequencies; and other relevant topics.

- E. **Acceptance.** Upon completion of all required corrective actions or maintenance items identified in a Final Inspection report, a PCM will be added into the Manitou Springs Permanent Control Measure Inventory. Addition to the City inventory does not negate the owner's the long-term operation and maintenance requirements for the PCMs.
- F. **Inspections.** The owner of PCMs shall inspect each facility in accordance with the Operations and Maintenance Manual. The City will inspect private PCMs at minimum once every year to evaluate the long-term operation and maintenance of structures. If during an inspection of a post-construction stormwater quality control structure it is determined and documented by a City Inspector that any owner or authorized agent failed to adequately operate and maintain a permanent stormwater quality control measures or remove the temporary control measures, an enforcement action described in this Title.

14.05 Enforcement.

A process of escalating enforcement measures will be used to ensure compliance with City Grading and Erosion Control Permits and the City MS4 permit. Enforcement shall be applied to sites with an existing GEC Permit, and sites that do not obtain a GECP permit when one is required prior to starting construction. In addition to the enforcement provisions in Title 18, the enforcement procedures included in the Section will be used for applicable construction activities and applicable development sites.

14.05.01 Sites with a GEC Permit.

It is the responsibility of the owner to take all necessary measures to ensure that the site is in compliance with the GEC Permit. The basis for implementing enforcement actions are the inspections conducted by the City and the QSM for the site. City Inspectors will take a compliance assistance approach with the owner during inspections. However, Failure to adequately respond to noncompliance findings documented in any Inspection Report provided by the City may result in an enforcement action.

- A. **Escalation.** The MS4 permit requires an enforcement process and sanctions designed to minimize the occurrence of violations and obtain compliance from chronic and recalcitrant violators of stormwater control measure requirements. Thus, escalation of enforcement must occur, as necessary, based upon the severity of the violation and/or the recalcitrance of the violator. As a general outline, the following process will be followed until the site is brought into compliance:
Non-compliance documented on Inspection Report > Verbal Notice of Noncompliance > Written Notice of Noncompliance > Stop Work Order > Revocation of Permit > Performance of Remedial Work and/or Court Order.

The City will exercise its discretion in applying enforcement mechanisms as circumstances warrant. Accelerated enforcement action or the immediate imposition of stricter remedies may be pursued in certain instances. Factors to be considered include:

- Recurrence of the same violation at a site,
- Repeated failure to correct violations at a site; and
- A history of noncompliance or recalcitrance.

- B. **Correction of Noncompliance.** With each inspection the City performs at a site, the inspector will document any observed violations of the GEC Permit and SWMP. The owner will remain noncompliant until all violations are corrected.

When the City Inspector observes violations of the GEC Permit, the findings will be documented in the inspection report. Examples of findings include failure to implement control measures, inadequate control measures, or control measures requiring routine maintenance. At the subsequent Compliance Inspection (within 14 days of the previous inspection), if the findings have not been resolved before or during the inspection, then the City Inspector may issue a Notice of Noncompliance to the owner.

When control measures have not been implemented, are inadequate, or require routine maintenance, the owner shall take all necessary steps to minimize or prevent the discharge of pollutants. If it is not feasible to immediately install, repair, or perform maintenance on a control measure, the SWMP must be amended to describe the reason(s) such action is infeasible and establish a schedule for installing, repairing, or performing maintenance as soon as possible.

The owner shall remove and properly dispose of any unauthorized release or discharge (e.g., non-stormwater discharge, trash, sediment, spill, or leak) and clean up any contaminated surfaces on site to minimize future unauthorized discharges.

- C. **Notice of Noncompliance.** There are two types of Notices of Noncompliance issued by the City.
1. **Initial Notice of Noncompliance.** During a Compliance Inspection the City Inspector will identify findings from the previous report that have not been resolved and identify these issues as noncompliant in the current inspection report. The informal notice of noncompliance will be provided to the owner as a note in the inspection report. During a subsequent Compliance Inspection (within 14 days of the previous inspection), if the findings have not been resolved before or during the inspection, the City Inspector may issue a Formal Notice of Noncompliance to the owner.
 2. **Formal Notice of Noncompliance.** Following issuance of the Informal Notice of Noncompliance the City will conduct a follow-up Compliance Inspection (within 14 days of the previous Compliance Inspection) to determine if the previous findings were adequately resolved. Findings that have not been adequately resolved from the previous report will be documented in the current Compliance Inspection report and the City Inspector will issue a Formal Notice of Noncompliance. This is a written notice to formally inform the owner that the permitted site is not in compliance with the GEC Permit or other requirements of City criteria, codes or ordinances relating to grading, erosion, and stormwater quality. Failure to subsequently correct the violations prior to the next Compliance Inspection will result in the issuance of a Stop Work Order.

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- D. **Stop Work Order.** A Stop Work Order (SWO) is a written order to immediately cease all construction activities at a site. The SWO may be issued by the Planning Director or City Inspector to the owner. An immediate SWO (i.e., enforcement notifications steps described above are skipped) shall be issued when the owner has failed to obtain a Notice to Proceed prior to commencing any land disturbing activities. An immediate SWO may also be issued if the owner has demonstrated noncompliance with the GEC Permit after repeated and documented attempts by the City Stormwater Inspector to bring the site into compliance (i.e., Informal Notice of Noncompliance and Formal Notice of Noncompliance) or if the impacts of noncompliance are great enough, in the City's discretion, to warrant issuance of a SWO. When a SWO is issued, it requires all work on the site to cease. No further land use approvals relative to the site will be allowed by the City, nor will work be allowed to resume, until the owner takes the measures necessary to bring the site into compliance, as described in the SWO. The only work that may continue under a SWO is work associated with bringing the site into compliance and/or stabilizing all land disturbance using temporary or permanent stabilization measures. The owner shall notify the City Inspector, once corrective actions are completed, in order to schedule a follow-up inspection. The City Stormwater Inspector will perform a Compliance Inspection to verify satisfactory completion of required corrective actions identified in the SWO. No work shall commence until the owner receives the Compliance Inspection report with a written notice to resume full Construction Activities.
- E. **Revocation of Permit.** The City may revoke a GEC Permit if the requirements of the SWMP and GEC Plan are not implemented. Revocation of the GEC Permit results in a Stop Work Order and the owner shall submit to the Planning Director an adequate SWMP, GEC Plan, a new permit application, fees. This enforcement level is used in the following instances.
- A. A site refuses to comply with a SWO.,
 - B. The current stormwater management plan has been demonstrated to be inadequate and the owner failed to take the necessary measures to improve the plan,
 - C. The owner received three (3) Stop Works Orders, independent of site, from the city within a rolling twelve (12) month period.
- F. **Performance or Contracting of Remedial Work.** If the owner does not successfully complete all required work or violates any requirement of the GEC Permit, the City may take remedial measures (e.g., City staff or a private contractor may be retained to perform remedial work), charge the cost to the owner, and draw on posted collateral to cover such cost. Such costs shall include the actual cost of any work deemed necessary by the City plus reasonable administrative and inspection costs and penalties, as established by Resolution adopted by the City Council or by a fee schedule adopted by the Planning Director as authorized by the City Council. If the total of such costs exceeds the owner collateral, as determined by the approved FAE Form, the owner shall be responsible for payment of the remaining balance within thirty calendar days of receipt of an accounting of such from the City. This enforcement level is used when a site is vulnerable to significant erosion or sediment migration and offsite discharge of pollutants and when the owner cannot or will not come into compliance.
- G. **Civil Court Action.** Failure to comply with a SWO or Revocation of Permit, or failure to reimburse the City for costs incurred in the Performance or Contracting of Remedial Work, may result in a civil court action being filed against the owner.

14.05.02 Sites without a GEC Permit.

When construction activity is started without an approved GEC Permit, the City considers the owner the ultimate responsible party for all construction activities. When a City Inspector determines that applicable construction activity is occurring or has occurred without an approved GEC Permit, an immediate SWO will be issued to the owner. All construction activity shall cease at the site until a Grading and Erosion Control Permit is obtained from the City. The only work that may continue is implementation of control measures to prevent an offsite discharge. The owner shall follow the procedures outlined in Title 18 and this Title 14 of City Code to obtain the required approval(s). Failure to comply with a SWO may result in a Civil Court Action being filed against the owner.

14.05.03 Illicit Discharges.

The City at its discretion may consider an unauthorized discharge of a pollutant to the MS4 or waters of the state as illicit discharge. In such cases, additional enforcement provided in Title 6 may be pursued. When an illicit discharge occurs directly into Waters of the State, the City, may notify the Colorado Department of Public Health and Environment pursuant to the reporting requirements included in the City MS4 permit or the CDPS General Permit for Stormwater Discharges Associated with Construction Activity.

In addition to any other penalties, any person convicted of any violation of this Stormwater Quality Management and Discharge Control Code may be punished in accordance with the provisions of Section 1.01.100 of the Code of Ordinances of the City of Manitou Springs.

14.06 Severability

If any section, sentence, clause or phrase of this Code is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Code

(Ord. 1507 § 1 (part), 2008)

Title 14

STORMWATER QUALITY MANAGEMENT AND DISCHARGE CONTROL CODE

Chapters:

Chapter 14.01 GENERAL PROVISIONS

Sections:

14.01.010 Title.

This title shall be known as the Stormwater Quality Management and Discharge Control Code and may so be cited.

(Ord. 1507 § 1 (part), 2008)

14.01.020 Purpose.

~~The purpose and intent of this title is to protect the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. § 1251 et seq.) by reducing pollutants in stormwater discharges to the maximum extent practicable and by prohibiting nonstormwater discharges into the City's Municipal Separate Storm Sewer System (MS4).~~

~~A. The objectives of this Code are as follows:~~

- ~~1. To promote, preserve, and enhance the natural resources within the City of Manitou Springs from adverse or undesirable impacts caused by development or other activities;~~
- ~~2. To protect and promote the health, safety, and welfare of the people and property through effective stormwater quality management practices;~~
- ~~3. To regulate land development activity, land disturbing activity, or other activities that may have an adverse impact on stormwater quality, and/or environmentally sensitive lands and to encourage compatibility between such uses;~~
- ~~4. To establish detailed review standards and procedures for land development activities throughout the city of Manitou Springs, thereby achieving a balance between growth and development and the protection of water quality; and~~
- ~~5. To provide for adequate stormwater system analysis and design as necessary to protect public and private property, water quality and existing natural resources.~~

~~B. This Code sets forth uniform requirements for Stormwater Management Systems within the City of Manitou Springs. In the event of any conflict between the City of Manitou Springs, El Paso County, State or Federal authorities, the more restrictive standard shall prevail.~~

~~C. This Code applies in the City of Manitou Springs, Colorado and to persons outside the City who are, by contract or agreement with the City, users of the City Stormwater Management System. Except, as~~

~~otherwise provided herein, the Stormwater Manager shall administer, implement, and enforce the provisions of this Code.~~

The Federal Clean Water Act (CWA) establishes the National Pollutant Discharge Elimination System (NPDES), which is a permitting system that regulates point sources of pollution that discharge directly to a state water. Point sources of pollution are pipes and drains that flow directly to a state water and typically come from industries, some agricultural facilities, and municipalities. Storm sewer systems that discharge to a state water are point sources of pollution and require a permit. The Colorado Department of Public Health and Environment issued the first Municipal Separate Storm Sewer System (MS4) permits to small municipalities, including the City of Manitou Springs in 2003.

This chapter establishes the regulatory mechanisms required by the MS4 permit to reduce or prevent the discharge of pollutants to the MS4 from applicable construction activities and applicable development sites that occur within the jurisdictional limits of the city.

(Ord. 1507 § 1 (part), 2008)

14.01.030 -Definitions.

~~For the purpose of this Code, the following terms, phrases, and words, and their derivatives, shall have the meaning as stated in this section. When inconsistent with the context, words used in the present tense include the future tense. Words in plural number include the singular number, and words in the singular number include the plural number. The word "shall" is always mandatory and the word "may" is always permissive.~~

~~"Best management practices (BMP)" means erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing, and minimizing the length of time soil areas are exposed, prohibitions, and other management practices published by federal, state, or designated area-wide planning agencies.~~

~~BMPs are measures designed to: (1) prevent pollutants from leaving a specific area; (2) reduce/eliminate the introduction of pollutants; (3) protect sensitive areas; or (4) prevent the interaction between precipitation and pollutants.~~

~~"City" means the City of Manitou Springs.~~

~~"Colorado Department of Public Health and Environment (CDPHE)" means the agency responsible for managing Stormwater programs in the state of Colorado.~~

~~"Colorado discharge permit system (CDPS)" means Colorado's version of the NPDES program.~~

~~"Council" means the City Council of the City of Manitou Springs.~~

~~"Development" means any land disturbance activity that changes the site's runoff characteristics in conjunction with residential, commercial, industrial, mining or institutional construction or alteration. The act of subdivision or platting properties for personal use, adding value or for the purposes of resale. This includes the construction and/or demolition of buildings, structures, roads, parking lots, paved storage areas, and similar facilities.~~

~~"Erosion" means wearing the surface of the land by the action of water, wind, ice, or gravity. Erosion can be accelerated by the activities of man and nature.~~

~~"Erosion control" means methods employed to prevent erosion. Examples include soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing.~~

"Erosion and stormwater quality control plan (ESQC plan)" means a written description (Stormwater Management Plan) and plan (Grading and Erosion Control Plan) indicating the number, locations, sizes, and other pertinent information about best management practice methods designed to reduce erosion of the land surface and the deposition of sediment within a waterway. The ESQC Plan should be used in developing the State mandated Stormwater Management Plan (SWMP). An ESQC Plan may be required as outlined in this Code or determined necessary by the City Planning Office.

"Erosion and stormwater quality control permit (ESQC permit)" means a permit issued by the City prior to initiating land development, land disturbing, or other activities which result in an increase in stormwater quantities, degradation of stormwater quality, or restriction of flow in any storm sewer system, open ditch or natural channel, stormwater easement, water body or wetland outlet within the City's jurisdiction, as defined in the Code.

"Exposed soil areas" means all areas of the construction site where the vegetation (trees, shrubs, brush, grasses, etc.) or impervious surface has been removed, thus rendering the soil more prone to erosion. This includes topsoil stockpile areas, borrow areas and disposal areas within the construction site. It does not include temporary stockpiles or surcharge areas of clean sand, gravel, concrete or bituminous, which have less stringent protection. Once soil is exposed, it is considered "exposed soil," until it meets the definition of "final stabilization."

"Final stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform (evenly distributed, e.g., without large bare areas) perennial vegetative cover with a density of at least seventy percent of the pre-disturbed cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures have been employed. Simply sowing grass seed is not considered final stabilization.

Grading and Erosion Control Plan. A Grading and Erosion Control Plan provides topographic information on the final grading layout of a developed site. The Grading Plan will identify permanent stormwater quantity and quality features, including all permanent BMPs, as defined in the Code.

"Impervious area" means a constructed hard surface that either prevents or retards the entry of water into the soil, and causes water to run off the surface in greater quantities and at an increased rate of flow than existed prior to development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel parking lots and roads.

"Land disturbing activity" means any land change that may result in soil erosion from water or wind and the movement of sediments into or upon waters or lands within the City's jurisdiction, including construction, clearing and grubbing, grading, excavating, transporting and filling of land. Within the context of this Code, land disturbance activity does not mean:

1. — Minor land disturbance activities such as home gardens and an individual's home landscaping, repairs, and maintenance work, which will not result in sediments entering the stormwater system.
2. — Tilling, planting, or harvesting of agricultural, horticultural, or silvicultural (forestry) crops.
3. — Emergency work to protect life, limb, or property and emergency repairs, unless the land disturbing activity would have otherwise required an approved erosion and sediment control plan, except for the emergency. If such a plan would have been required, then the disturbed land area shall be shaped and stabilized in accordance with the City's requirements as soon as possible.

Municipal Separate Storm Sewer Systems (MS4). An MS4 is defined as a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. — Owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or

~~drainage district, or similar entity, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges to state waters;~~

~~2. — Designed or used for collecting or conveying stormwater;~~

~~3. — Which is not a combined sewer; and~~

~~4. — Which is not part of a Publicly Owned Treatment Works (POTW).~~

~~"MS4 Permit" means discharge permit issued by the CDPHE that authorizes the discharge of Stormwater from the MS4 to state waters.~~

~~"National pollution discharge elimination system (NPDES) permit" means any permit or requirement enforced pursuant to the Clean Water Act as amended for the purposes of regulating Stormwater discharge. Section 402 of the federal Clean Water Act.~~

~~"Noncompliance fee" means the administrative penalty fee for re-inspection of a property which may be assessed to a Permittee, Land Owner, Developer or their Contractor(s) for noncompliance with the provisions and/or conditions of an approved stormwater plan and/or permit or the violation of any other provisions contained in this stormwater Code.~~

~~"Owner" means the owner of record, whether person, partnership, firm, corporation, governmental agency, or other association of persons, or any authorized agent or representative of the owner of record.~~

~~"Prohibited discharge" means a nonstormwater discharge into the stormwater system or natural water, including but not limited to:~~

~~1. — Debris or other materials such as grass, clippings, vegetative materials, tree branches, earth fill, rocks, concrete chunks, metal, other demolition or construction materials, or structures.~~

~~2. — The disposal or misuse of chemicals or any other materials that would degrade the quality of waters within the system, including, but not limited to chemicals (fertilizers, herbicides, pesticides, etc.) or petroleum-based products (gasoline, oil, fuels, solvents, paints, etc.)~~

~~3. — Erosion and sediment originating from a property and deposited onto City streets, private properties or into the stormwater conveyance system, including those areas not specifically covered under an approved Stormwater Management Plan or Stormwater Permit.~~

~~4. — Failure to remove sediments transported or tracked onto City streets by vehicles or construction traffic within twenty-four hours of it being deposited on the street.~~

~~5. — For the purposes of this Code, Prohibited Discharges do not include the following, unless information is available to indicate otherwise:~~

~~a. — Water line flushing;~~

~~b. — Landscape and lawn irrigation water;~~

~~c. — Diverted stream flows;~~

~~d. — Rising ground water;~~

~~e. — Uncontaminated ground water infiltration;~~

~~f. — Uncontaminated pumped ground water, including; water from crawl space pumps;~~

~~g. — Discharges from potable water sources;~~

~~h. — Foundation and footing drains;~~

~~i. — Air conditioning condensate;~~

- j. — Springs;
- k. — Individual residential car washing;
- l. — Flows from riparian habitats and wetlands;
- m. — Street wash water;
- n. — Emergency firefighting water; and
- o. — Discharges authorized by a Colorado Discharge Permit system (CDPS) permit.

"Runoff" means the portion of rainfall, snowmelt, dewatering, or irrigation water flowing over the ground surface and into open channels, underground storm sewers, and detention or retention ponds.

"Sediment" means solid material or organic material that, in suspension, is being transported or has been moved by air, water, gravity, or ice, and deposited at another location.

"Sediment control" means the methods employed to prevent sediment from leaving the development site. Examples of sediment control practices include, but are not limited to silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.

"State" means the state of Colorado.

Stormwater Manager. The stormwater manager shall be assigned by the City Administrator. Person responsible for enforcing the Stormwater Quality Management and Discharge Control Code.

Stormwater Management. The planned set of public policies and activities undertaken to regulate runoff and reduce erosion, and maintain or improve water quality under various specified conditions within various portions of the drainage system. It may establish criteria for controlling peak flows and/or runoff volumes, for runoff detention and retention, or for pollution control, and may specify criteria for the relative elevations among various elements of the drainage system. Stormwater management is primarily concerned with limiting future flood damages and environmental impacts due to development, whereas flood control aims at reducing the extent of flooding that occurs under current conditions.

"Stormwater management plan (SWMP)" means a document required to be prepared for obtaining an Erosion and Stormwater Quality Control Permit (ESQC Permit) and a CDPHE Stormwater Construction Permit.

"Stormwater management system" means physical facilities that collect, store, convey, and treat stormwater runoff in urban areas. These facilities normally include detention and retention facilities, streets, storm sewers, inlets, open channels, and special structures, such as inlets, manholes, and energy dissipaters.

"Temporary protection" means short-term methods employed to prevent erosion. Examples of protection are straw, mulch, erosion control blankets, wood chips, and erosion netting.

"Violation" means the willful or negligent act of noncompliance with the conditions attached to an approved stormwater plan and/or permit, or any other provisions contained in this Code, subject to enforcement and penalty or noncompliance fees.

"Waters of the state" means and includes all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies of accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

"Watercourse" means the natural path for the flow of water where there is sufficient natural and accustomed runoff to form and maintain a distinct and defined channel or an open channel facility that has been constructed for such purpose. This shall include any easements obtained for the purposes of runoff conveyance.

(Ord. 1507 § 1 (part), 2008)

The definitions below are intended strictly for clarification purposes and may not contain the full legal definition as per regulation. For the purposes of this chapter:

1. Applicable Construction Activity: Construction activities with land disturbance (surface disturbing and associated activities) of one or more acres, or disturbing less than one acre if that construction activity is part of a larger common plan of development or sale that would disturb, or has disturbed one or more acres, unless excluded in section 14.02.020 of this code. Applicable construction activities include the land disturbing activity and all activities and materials associated with the construction site and located at, or contiguous to, the land disturbing activities.
2. Applicable Development Sites: Sites that result in land disturbance of greater than or equal to one acre, including sites less than one acre that are part of a larger common plan of development or sale, unless excluded below. Applicable development sites include all new development and redevelopment sites for which permanent water quality control measures were required in accordance with an MS4 permit. "New Development" means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision for a site that does not meet the definition of redevelopment.
3. Base Design Standard: The minimum design standard for new and redevelopment before applying exclusions or alternative standards.
4. Best Management Practices: Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "state surface waters". BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. For the purpose of this permit, the term BMP is used interchangeably with the term control measure, and can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.
5. Common Plan of Development or Sale: A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The Division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile).
6. Construction activity: Refers to ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is cleared, graded, or excavated as part of the repaving operation are considered construction activities unless they are an excluded site in section 14.04.010 of this code. Construction activity is from initial groundbreaking to final stabilization regardless of ownership of the construction activities.
7. Construction Dewatering: Discharge of groundwater, surface water, and stormwater that has mixed with the groundwater and/or surface water (i.e. commingled stormwater runoff) that has come into contact with applicable construction activities.
8. Construction Site – The location where construction activity is occurring and associated discharges are covered by this code, including offsite locations for storage, staging, etc. For use in this permit, the terms construction site, site, and facility are used interchangeably
9. Contiguous: Within 0.25 miles.
10. Control Measure: Any best management practice or other method used to prevent or reduce the discharge of pollutants to waters of the state. Control measures include, but are not limited to best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

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11. Control Measure Requiring Routine Maintenance: Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent associated potential for failure during a runoff event. See also Inadequate control measure.
 12. Discharge: The discharge of pollutants as defined in section 25-8-103(3) C.R.S. For the purposes of this title, discharges do not include land application or discharges to the ground.
 13. Discharge of a Pollutant: The introduction or addition of a pollutant into state waters. See 25-8-103(3) C.R.S.
 14. Division: The Water Quality Control Division of the Colorado Department of Public Health and Environment.
 15. Effluent Limitation: Any restriction or prohibition established under the Colorado Water Quality Control Act, state regulations, or federal law on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into state waters, including, but not limited to, standards of performance for new sources, toxic effluent standards and schedules of compliance.
 16. Exclusion: A removal of the applicability of the terms or conditions in this title from applying to the given conditions.
 17. Exemption: An exemption, waiver, or variance implemented by the city for city control measures used to meet the effluent limits in the MS4 permit.
 18. Final Stabilization: The condition reached when all ground surface disturbing activities at the site have been completed, and for all areas of ground surface disturbing activities a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre- disturbance levels, or equivalent permanent, physical erosion reduction methods have been installed.
 19. Good Engineering, Hydrologic and Pollution Control Practices: Methods, procedures, and practices that:
 - a. Are based on basic scientific fact(s).
 - b. Reflect best industry practices and standards.
 - c. Are appropriate for the conditions and pollutant sources.
 - d. Provide appropriate solutions to meet the associated permit requirements, including practice based and numeric effluent limits.
 20. Green infrastructure: Generally, refers to control measures that use vegetation, soils, and natural processes or mimic natural processes to manage stormwater. Green infrastructure can be used in place of or in addition to low impact development principles.
 21. Illicit Discharge: Any discharges to an MS4 that is not composed entirely of stormwater except discharges specifically authorized by a CDPS or NPDES permit and discharges resulting from emergency firefighting activities. Please refer to Title 6 of the municipal code for a complete definition of illicit discharge.
 22. Impervious Area: Developed areas with covering or pavement that prevents the land's natural ability to absorb and infiltrate typical precipitation and irrigation events. Impervious areas include, but are not limited to; roof tops, walkways, patios, driveways, parking lots, impervious storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering.
 23. Inadequate Control Measure: Any control measure that is not designed, implemented, or operating in accordance with the requirements of this title, and implemented and maintained to operate in accordance with the design specifications. See also Control measure Requiring Routine Maintenance.
 24. Land Disturbing Activity: Any activity that results in a change to the existing land surface (both vegetative and non-vegetative). Land disturbing activities include, but are not limited to clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity.
 25. Minimize: For purposes of implementing control measures of this chapter, means reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable considering best industry practices.
 26. MS4: A municipal separate storm sewer system. See municipal separate storm sewer system.
 27. Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

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- a. Owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;
 - b. Designed or used for collecting or conveying stormwater;
 - c. Which is not a combined sewer; and
 - d. Which is not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).
28. Municipal Separate Storm Sewer System Outfall (Outfall): A point source, as defined herein, at the point where a municipal separate storm sewer discharges to state waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other state waters and are used to convey state waters.
29. New Development: Land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision for a site that does not meet the definition of redevelopment.
30. Non-Structural Control Measures: Includes control measures that are not structural control measures, and include, but are not limited to, control measures that prevent or reduce pollutants being introduced to water or that prevent or reduce the generation of runoff or illicit discharges.
31. Owner: The person or entity who is responsible for the overall operation of the facility or activity from which the associated discharge originates.
32. Pavement Management Sites: Sites, or portions of sites, for the rehabilitation, maintenance, and reconstruction of pavement, which includes roadway resurfacing, mill and overlay, white topping, black topping, curb and gutter replacement, concrete panel replacement, and pothole repair. The purpose of the site is to provide additional years of service life and optimize service and safety. The site also must be limited to the repair and replacement of pavement in a manner that does not result in an increased impervious area and the infrastructure must not substantially change. The types of sites covered under this exclusion include day-to-day maintenance activities, rehabilitation, and reconstruction of pavement.
33. Permanent Control Measure (PCM): Control measures designed to permanently mitigate stormwater quality impacts from applicable development sites.
34. Point Source: Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).
35. Pollutant: Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).
36. Pollution: Man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. See 5 CCR 1002-61.2(77)
37. Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater control measures implemented to meet the requirements of this permit.
38. Redevelopment: Includes a site that is already substantially developed and has 35% or more of existing hard surface coverage, the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.
39. Regulatory Mechanism: The mechanisms that allow the city to implement and enforce the requirements of this title.

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40. Roadway: Roads and bridges that are improved, designed or ordinarily used for vehicular travel and contiguous areas improved, designed or ordinarily used for pedestrian or bicycle traffic, drainage for the roadway, and/or parking along the roadway. Areas primarily used for parking or access to parking are not included.
 41. Site Plan: Also known as construction stormwater site plans, sediment and erosion control plans, stormwater pollution prevention plans, drainage reports, drainage plans, stormwater management plans, drainage and erosion control plans, etc.
 42. Stormwater: Stormwater runoff, snow melt runoff, and surface runoff and drainage caused by precipitation.
 43. Structural Control Measures: Includes control measures that are comprised of facilities and structures that remove pollutants from water or retain, reuse, or provide for infiltration or evaporation of water.
 44. Total Maximum Daily Loads (TMDLs): The sum of the individual waste load allocations (WLA) for point sources and load allocations (LA) for nonpoint sources and natural background. For the purposes of this permit, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes WLAs, LAs, and must include a margin of safety (MOS), and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 C.F.R. 130.2 and 130.7).
 45. Water Quality Capture Volume (WQCV): The volume equivalent to the runoff from an 80th percentile storm, meaning that 80 percent of the most frequently occurring storms are fully captured and treated, and larger events are partially treated.
 46. Water Quality Standards: Any standard promulgated pursuant to section 25-8-204 C.R.S. For purposes of this permit, water quality standards are a narrative and/or numeric restriction established by the Water Quality Commission applied to state surface waters to protect one or more beneficial uses of such waters. Whenever only numeric or only narrative standards are intended, the wording shall specifically designate which is intended. See 5 CCR 1002- 31.5(37).
 47. Waters of the State of Colorado: Any and all surface waters and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed. This definition can include water courses that are usually dry.

~~14.01.040 Stormwater quality management guidelines.~~

- ~~A. Prohibited Discharges. It is an offense for any person to cause or allow a Prohibited Discharge, as defined by this code, into Waters of the State, including the City stormwater management system, or any natural water.~~
- ~~B. Land Disturbing Activities Requiring an ESQC Permit. Any construction activity requiring a HLDR Plan, Minor Development Plan, Major Development Plan, or Grading Plan as determined by the Planning Director, or any activity resulting in land disturbance within the City that require a Grading Permit per Zoning Code, Chapter 18.68.~~
- ~~C. Land Disturbing Activity Requiring an ESQC Plan. Any construction activities, resulting in land disturbance within the City greater than 0.5 acres.~~

~~No building permit shall be issued until approval of an ESQC Permit or a waiver of the permit requirements has been obtained in strict conformance with the provisions of this Code. No land shall be disturbed until the permit is approved by the City and conforms to the standards set forth herein.~~

~~Exemptions to the ESQC Plan requirements of this section include:~~

1. ~~Any part of a subdivision that has been approved for construction by the City Planning Department on or before the effective date of this Code. An ESQC Permit for land disturbing activities on such properties may still be required, as determined by the Stormwater Manager, and such activities are still subject to other compliance requirements in accordance with this Code;~~
2. ~~An ESQC Plan is not required for individual lots or properties located within a subdivision or plat for which an ESQC Plan has already been approved. This exemption is subject to the City's Planning Office's and Stormwater Manager's consideration and approval. ESQC Permits, however, are required subject to the other exemptions noted in this section;~~
3. ~~A parcel for which a building permit has been approved on or before the effective date of this Code;~~
4. ~~Emergency work to protect life, limb, or property.~~

~~D. Installation and repair of utility service lines.~~

1. ~~At project sites that require permit coverage where a utility contractor is not the site owner or operator, each utility contractor must comply with the provisions of the ESQC Permit for the project their construction activities will impact. Each utility contractor must ensure that their activities do not render ineffective, the erosion prevention and sediment control best management practices (BMPs) for the site. Should a utility contractor damage or render ineffective any BMPs for the site, the utility contractor must repair or replace such BMPs immediately on the site. The utility contractor will be responsible for a BMP that includes seed or sod and must provide maintenance, including any watering necessary to insure the establishment of the sod or seed. The establishment period for a BMP that includes sod or seed shall be thirty days, after which, if the area does not have an acceptable level of establishment, the utility contractor must re-sod or re-seed until satisfactory establishment is achieved.~~
2. ~~Utility contractors working in a street right-of-way to repair existing or install new utilities shall meet the requirements of Part B of this Section of this Code. The utility contractor is required to provide appropriate inlet protection and sediment control during the course of the work so as to ensure the storm sewer system is protected from pollution. The utility contractor is also required to provide street sweeping as necessary to insure that sediments resulting from their activity do not enter the stormwater system following construction. The street shall be swept within one working day of completion of utility installation on the site. All disturbed vegetation shall be replaced with seed or sod within seven days of completion of utility installation on the site.~~

~~E. Waivers. The City's Planning Office may waive any requirement of this Code upon making a finding that compliance with the requirement will involve an unnecessary hardship.~~

~~(Ord. 1507-5-1 (part), 2008)~~

14.01.040 Criteria Incorporated by Reference

This chapter, when combined with the following documents, their amendments and successors form the criteria used for protecting stormwater quality during construction and development activity in the city. These criteria shall be used for the planning, design and construction of permanent control measures.

- The City of Colorado Springs Drainage Criteria Manual Volume 1 (DCMV1), May 2014, revised January 2021)
- The City of Colorado Springs Drainage Criteria Manual Volume 2 (DCMV2), May 2014, revised December 2020.

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- [The City of Colorado Springs Stormwater Construction Manual \(SCM\) Appendix E \(latest version and approved alternatives\).](#)
 - [The Mile High Flood Control District \(MHFD\) Urban Stormwater Drainage Criteria Manual \(USDCM\) Volumes 1 through 3 \(latest versions\).](#)

Chapter 14.02 GRADING AND EROSION CONTROL PERMIT ~~EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQC PERMIT)~~

Sections:

14.02.010 Permit requirements.

~~It is unlawful to initiate any land development activity, land disturbing activity, or other activities which may result in an increase in stormwater quantities, degradation of stormwater quality, or restriction of flow in any storm sewer system, open ditch or natural channel, stormwater easement, water body, or wetland outlet within the jurisdiction of the City, without having first complied with the terms of this Code.~~

[It is unlawful to initiate any land disturbing activities that meet the definition of applicable construction activities or applicable development site without first obtaining a Grading and Erosion Control Permit pursuant to the requirements of this Chapter and Title 18.](#)

~~A. — Permit Application. All persons subject to meeting the requirements and needing to obtain a ESQC Permit shall complete and file with the Stormwater Manager an application in the form prescribed by the Stormwater Manager and accompanied by a fee established by the City Council. The permit application may need to be accompanied by an ESQC Plan, if such a plan has not been previously approved. Permit applications may be denied if the applicant is not in compliance on another ESQC Permit currently in effect.~~

[1. Permit Application. Grading and Erosion Control permit submittals shall follow the general application procedures in Section 18.06.3 of Title 18. Applicants shall make an application to the Planning Department in accordance with the Grading and Erosion Control Permit Checklist. Grading and Erosion Control Plan submittals for applicable construction activities shall be developed by a professional engineer licensed to operate in the state of Colorado, consistent with content requirements of the Grading and Erosion Control Plan checklist. A copy of the Grading and Erosion Control Plan Checklist can be obtained at the Planning Department.](#)

~~B. ESQC Permit Applicability. An ESQC Permit will be required for construction activities resulting in a land disturbance, within the City, as defined by Chapter 18.68—Grading Permit of the Zoning Code. An ESQC Permit application does not require certification by a Professional Engineer registered in the State of Colorado, but will only be issued at the discretion of the Stormwater Manager. Commencing earthwork on a project prior to ESQC Permit approval is considered a violation of this Code.~~

[2. Stormwater Management Plan. A Stormwater Management Plan \(SWMP\) shall be developed and submitted with a Grading and Erosion Control Plan for all applicable construction activities and applicable development sites. A Stormwater Management Plan \(SWMP\) is a plan developed in](#)

compliance with the content requirements of Stormwater Management Plan Checklist. A copy of the SWMP Checklist can be obtained from the Planning Department.

The SWMP shall be a separate, standalone document from the engineering plan set. The purpose of the SWMP is to develop and document a systematic approach to identify possible pollutant sources that may contribute pollutants to stormwater, and identify construction control measures that, when implemented, will prevent or reduce the discharge of pollutants to state waters. The SWMP shall be completed and implemented prior to beginning ground disturbing activities, and revised as construction proceeds to accurately reflect the conditions and practices at the site. Revisions must be made to the SWMP before changes are made in the field. A map showing the current location, status and changes to the control measures are required. The owner or his representative shall keep records of the control measures as they are installed or removed according to the SWMP. The SWMP shall be developed by a Qualified Stormwater Manager.

- C. ~~Permit Delays. The Stormwater Manager may withhold granting approval of an ESQC Permit until all issues associated with the site are resolved to the satisfaction of the Stormwater Manager. Permits may be conditioned with delays such that work cannot begin until a specified date or until after the site is inspected.~~

3. Notice to Proceed. No work shall begin on an approved Grading and Erosion Control Permit until a Notice to Proceed is issued by the Planning Director or their designee. A Notice to Proceed will be issued after all necessary approvals are issued by the Planning Director, all fees are paid, and financial assurance is received when applicable, and the installation of initial control measures are verified by a City inspector. Starting work without a Notice to Proceed may result in an immediate Stop Work Order issued by the Planning Director.

~~D. Permit Conditions. Permits are issued subject to all provisions of this Code, the Zoning Code, the Subdivision Regulations, and all other applicable regulations, user charges and fees established by the City Council. Permits may contain, but are not limited to, any of the following conditions:~~

- ~~1. A Stormwater Connection Fee for a Stormwater Outlet utilizing the City's Municipal Separate Storm Sewer System (MS4) in accordance with a cost determined by the Stormwater Manager and approved by the City Council for said Outlet;~~
- ~~2. Limits on the maximum rate of allowable stormwater discharge;~~
- ~~3. Requirements for water quality of stormwater discharge;~~
- ~~4. Requirements for the installation, operation and maintenance of stormwater facilities including detention/retention or other treatment facilities;~~
- ~~5. Requirements for erosion and sediment control, including measures to be implemented and other procedures necessary to protect the stormwater system;~~
- ~~6. Compliance schedule;~~
- ~~7. Requirements for notification to and acceptance by the Stormwater Manager of any land disturbing activities which have the potential for increasing the rate of stormwater discharge resulting in degradation of stormwater quality;~~
- ~~8. Easements; and~~
- ~~9. Other conditions as deemed appropriate by the Stormwater Manager to insure compliance with this Code.~~

14.02.020 Exclusions.

Construction activities may be excluded from the definition of applicable construction activity only when the Division waives requirements for stormwater discharges associated with small construction activity in accordance with Regulation 61.3(2)(f)(ii)(B) (the “R-Factor” waiver).

Construction activities do not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of a facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is cleared, graded, or excavated as part of the repaving operation are considered construction activities and are not excluded.

~~E. — Permit Duration. Permits must be issued for a time period specified by the Stormwater Manager. The applicant, if necessary, shall apply for permit renewal a minimum of ninety days prior to the expiration of the applicant's existing permit. The terms and conditions of a permit are subject to modification by the Stormwater Manager during the term of the permit. Any denied or expired application may be resubmitted with additional information addressing the concerns contained within the denial or the reason why the original permit was allowed to expire. The resubmitted application shall be subject to all applicable fees and review time lines as if it were a new application.~~

14.02.030 Permit Conditions.

The following additional requirements apply to applicable construction activity. Appropriate control measures must be implemented prior to the start of construction activity, must control potential pollutants during each phase of construction, and must be continued through final stabilization. Appropriate structural control measures must be maintained in operational condition.

1. Control measures must be selected, designed, installed, implemented, and maintained to provide control of all potential pollutants, such as but not limited to sediment, construction site waste, trash, discarded building materials, concrete truck washout, chemicals, sanitary waste, and contaminated soils in discharges to the MS4 or waters of the state. At a minimum pollutant sources associated with the following activities (if part of the applicable construction activity) must be addressed:

1. Land disturbance and storage of soils
2. Vehicle tracking
3. Loading and unloading operations
4. Outdoor storage of construction site materials, building materials, fertilizers, and chemicals
5. Bulk storage of materials
6. Vehicle and equipment maintenance and fueling
7. Significant dust or particulate generating processes
8. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, and oils
9. Concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment

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10. Dedicated asphalt and concrete batch plants.
 11. Other areas or operations where spills can occur.
 12. Other non-stormwater discharges including construction dewatering not covered under the Construction Dewatering Discharges general permit and wash water that may contribute pollutants to the MS4.

F. —

2. Correction of Deficiencies. The project owner is responsible for ensuring and documenting that control measures are maintained and are operating as intended by the design specifications. Control measures must be routinely maintained in accordance with good engineering, hydrologic and pollution control practices. When there is a failure to implement control measures or a control measure has failed or is determined by the Qualified Stormwater Manager to be an inadequate control measure, it must be addressed as soon as possible, immediately in most cases to minimize the discharge of pollutants. All corrective actions for control measures must be completed within 3 calendar days after the noncompliance issue is first identified.

14.02.040 Permit Inspections.

Inspections of applicable construction activities are conducted by the City Inspectors to ensure compliance with the GEC Plan and the SWMP. The focus of construction sites inspections is to ensure construction is following the approved plans and that control measures are installed and maintained consistent with the onsite SWMP to prevent non-stormwater discharges from leaving the site and create negative public safety, property or stormwater quality impacts.

The following inspections may be performed at applicable construction activity in the City. Not all inspection types may be performed at all sites.

1. Initial Inspections. Initial inspections are performed by a City Inspector to confirm that the initial control measures are implemented according to the approved GEC Plan. The initial inspection also serves to establish contact between inspectors and the site personnel responsible for implementing the approved plans. No land disturbance or construction activities may occur prior to the initial inspection, with the exception of initial control measure installation. No stockpiling of materials is permitted prior to the initial inspection. The City Inspector will verify all initial Control Measures have been properly installed, take pre-disturbance photographs, and discuss self-inspection requirements with the Qualified Stormwater Manager. Dewatering measures will be discussed, including State dewatering permit requirements as applicable.
2. Self-Inspections. The project owner is required to conduct self-inspections of applicable construction activity. The purpose of these inspections is to ensure that all control measures are installed according to the approved plans, appropriate for the intended use, operating effectively, and are properly maintained. The self-inspections shall be conducted by a Qualified Stormwater Manager. There are two options for conducting self-inspections.
 - A. A thorough inspection shall be conducted at least once every 14 calendar days and after storm events. Post-storm event inspections must be conducted within 24 hours following the end of any precipitation or snowmelt event that causes surface erosion. The post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

B. The Qualified Stormwater Manager may choose to perform self-inspections every 7 calendar days without the requirement for post-storm event inspections. The self-inspection schedule must be identified in the self-inspection reports. A more frequent inspection schedule than this minimum may be necessary to ensure that Control Measures continue to operate intended. Site conditions such as steep grades and close proximity to a water of the state are reasons for increasing the frequency of self-inspections.

The Qualified Stormwater Manager shall retain copies of all self-inspection reports on site during active construction and provide them to the City upon request.

3. Reduced Frequency Inspections. The Qualified Stormwater Manager may perform self inspections at a minimum of one inspection every thirty (30) days when the following conditions are met.

A. All construction activities resulting in ground disturbance are complete;

B. All activities required for final stabilization, identified in the stormwater management plan are completed, with the exception of the application of sod or seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

C. The stormwater management plan has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

4. City Oversight Inspections. Applicable construction activities shall be inspected by a City Inspector (Planning or Public Works) during construction and until final stabilization is achieved. City oversight inspections shall be performed at all applicable construction activities for the purpose of assuring compliance with the City's MS4 Permit. Inspections performed by City Inspectors do not fulfill the requirement for Self-Monitoring Inspections to be conducted by the project owner. City inspections will include observations and documentation of control measures and permanent stormwater control facilities for conformance with the SWMP, approved construction drawings and the GEC Plan. During a City inspection the site is assessed for general compliance with the permit, overall site management, and record-keeping.

The City may conduct the following types of inspections: Routine Inspections, Compliance Inspections, Complaint Response Inspections, Inactive Site Inspections, Staff Vacancy Inspections and Indicator Inspections. Not all inspection types may be performed at all sites. For all inspections conducted by the City inspectors, a copy of the completed inspection report will be provided to the project owner and Qualified Stormwater Manager typically within two (2) business days following the inspection.

A. Routine Inspections. Routine Inspections are conducted to assess control measures, pollutant sources, and discharge points. During a Routine Inspection, any failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be evaluated to determine if any non-allowable discharges have occurred. Discharge points to the MS4 and adjacent property will be evaluated to determine if any non-allowable discharges have occurred. The removal of pollutants will be required, when feasible, if a failure to implement a control measure, or an inadequate control measure results in an off-site discharge of pollutants.

During a Routine Inspection, the City Inspector may review all Self-Monitoring Inspection reports for accuracy and completeness. In addition, the SWMP and GEC Plan may be reviewed to ensure the plans reflect current site conditions.

Routine Inspections are conducted at least once every 45 days.

- B. Compliance Inspections. Compliance Inspections are conducted as a follow up to an Illicit Discharge, or a previously documented failure to implement a control measure, or an inadequate control measure. During Compliance Inspections the City Inspector shall verify if corrective actions have been completed on sites where an Illicit Discharge, a failure to implement a control measure, or an inadequate control measure was documented in the previous inspection report,

A compliance inspection, or alternative inspection listed below, must identify if corrections have been completed on sites where the permittee has documented an illicit discharge or failure to implement a control measure or an inadequate control measure during the previous inspection. One of the following, that incorporates this required scope, may be performed or required in lieu of a compliance inspection within 14 days of the permittee site inspection identifying that there is a failure to implement a control measure or an inadequate control measure:

- i. Routine inspection in accordance with paragraph A above;
- ii. Indicator Inspection in accordance with paragraph D.3. below; or
- iii. Operator Compliance Inspection: The City requires the operator to inspect and report that the corrective actions are complete as necessary to meet the requirements of the permit. The operator report must include photographs of the new/adequate control measure(s).

Compliance Inspections are conducted within 14 days of the previous inspection, unless the necessary corrections were made and observed by the City Stormwater Inspector during the previous inspection when the compliance issue was observed.

- C. Complaint Response Inspections. Complaint Response Inspections are conducted in response to a complaint received by the City. Complaint Response Inspections are conducted to assess control measures, pollutant sources, and discharge points. During a Complaint Response Inspections, any failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be evaluated to determine if any non-allowable discharges are occurring. Discharge points to the MS4 or adjacent property will be evaluated to determine if an Illicit Discharge has occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

- D. Reduced Site Inspections. Reduced Site Inspections are conducted by City Stormwater Inspectors at the frequency indicated below:

- 1. Inactive Site Inspections. Inactive Site Inspections are conducted on sites where land disturbing activities are complete and pending growth of vegetation for final stabilization, or for sites where no construction activity has occurred since the last inspection. During an Inactive Site Inspection, failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be inspected to determine if any non-allowable

discharges have occurred. Discharge points to the MS4 or adjacent property will be evaluated to determine if any non-allowable discharge has occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

Inactive Site Inspections are conducted at least once every 90 days.

2. Staff Vacancy Inspection. Staff Vacancy Inspections are conducted as needed to accommodate a City staff vacancy or leave due to vacation or illness. During a Staff Vacancy Inspection, failures to implement control measures, inadequate control measures, and control measures requiring routine maintenance will be identified. All sources of pollution, including trash, will be evaluated to determine if any non-allowable discharges have occurred. Discharge points to the MS4 and adjacent property will be evaluated to determine if any non-allowable discharges have occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

Staff Vacancy Inspections are conducted at least once every 90 days.

3. Indicator Inspection. Indicator inspections are a drive-by or screening, conducted to assess sites for indicators of noncompliance and do not fully assess the adequacy of control measures and overall site management. Before an indicator inspection may be conducted, a routine inspection of an applicable construction activity must first occur. During this inspection the perimeter of a site will be evaluated for indicators of failure to implement, and inadequate control measures. Discharge points to the MS4 and adjacent property will be evaluated to determine if any non-allowable discharges have occurred. The removal of pollutants will be required, when feasible, when an off-site discharge of pollutants has occurred.

Indicator inspections may be conducted at least once every 14 days with a routine inspection conducted at least once every 90 days.

- E. Final Inspection. When a request to terminate a Grading and Erosion Control Permit is received by the Planning Director the City and the Qualified Stormwater Manager will conduct a final inspection of the site to determine if the conditions for permit termination are met.

Final inspections are also used by the City to determine if permanent control measures are constructed according to approved plans; and to determine if:

- Any sediment or other pollutant that may have been transferred off-site has been removed.
- All PCMs have been maintained and are functioning in accordance with the design and the O&M Manual.
- As-Built Drawings are accurate and provided to the City.
- All CCMs have been removed from the site.
- Streets, parking lots and other paved surfaces (on-site and off-site) are free of sediment and debris.
- Drainage structures such as pipes, inlets and channels are clean and in good service.

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- The site is in compliance with all required corrective action identified during previous Inspections.
 - A copy of the CDPHE Colorado Discharge Permit System Notice of Termination, Permit Modification Certification, or Permit Transfer Certification is provided to the City.

14.02.050 Permit Termination.

A request to terminate a Grading and Erosion Control Permit for an applicable construction activity must be submitted by the project owner to the Planning Director, after a site establishes final stabilization. The following conditions must be met for approval to terminate the permit.

1. All construction activities at the site are complete and no further land disturbing activities will occur.
2. For all areas where ground surface disturbing activities occurred a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

For sites using vegetation cover as a final stabilization method the following criteria shall be met.

- a) The vegetation may include perennial grasses, plants, shrubs and trees consistent with regionally approved seed mixes.
- b) Individual plant density equivalent to 70% of pre-disturbance levels shall be evenly distributed and be based on a locally representative location that is undisturbed.
- c) Noxious weeds shall not be present.

Following the Permit Termination Inspection, the City Inspector will send the owner a Termination Inspection Report.

Once all Permit Termination Inspection Report findings have been addressed, the City will provide the owner a written Notice of Termination stating that the GEC Permit has been terminated.

All Self-Monitoring and City Inspections shall cease at Permit Termination.

~~Permit Modification. The Stormwater Manager for just cause and upon thirty day notice may modify any ESQC Permit. Just cause shall include but not limited to:~~

- ~~1. Promulgation of new federal, state or local regulatory requirements;~~
- ~~2. Changes in the requirements of this Code, the Zoning Code or the Subdivision Regulations;~~
- ~~3. Changes in the process used by the Permittee or changes in discharge rate, volume, or character; and~~
- ~~4. Changes in the design or capability of the receiving Stormwater Systems.~~

~~The applicant must be informed of any proposed changes in the permit at least thirty days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.~~

~~G. —~~

~~Permit Amendments. ESQC Permit's may be amended (by applicant) only by a written request submitted by the Permittee to the Stormwater Manager. This request shall contain the reason for the change and documentation related to any additional impacts, which may result from amendment approval. Amendment requests submitted prior to issuance of an ESQC Permit shall be considered part of the original submittal. Amendment requests filed after permit approval shall be considered and reviewed under the same procedures and guidelines used for the ESQC Permit Applications under this Section. Depending on the extent of the amendment, the Stormwater Manager may waive any additional fees for a permit amendment review.~~

~~H. — Permit Transfer. A permit runs with the property it covers, until the permitted activities are completed, and is transferable to new Landowners in its entirety or by parcel, with each parcel being subject to the permit and any conditions, which apply to that parcel. Land transfers must be reported to the Stormwater Manager within seven days of the transfer. This section refers to City issued permits and does not release the applicant or owner from transfer requirements for a CDPS/Stormwater Construction Permit, including but not limited to permit transfers or subdivision registration.~~

~~I. — Monitoring Facilities. The Stormwater Manager may require the Applicant to provide and operate at the applicant's expense a monitoring facility to allow inspection, sampling, and flow measurements of each Stormwater System component. Where at all possible, the monitoring facility shall be located on the Applicant's property as opposed to being located on public rights-of-way. Ample room must be allowed for accurate flow measuring and sampling and the facility shall be kept in a safe and proper operating condition.~~

~~J. — Inspection. The Stormwater Manager may inspect the Stormwater Management System of any Permittee to determine compliance with the requirements of this Code. The applicant shall promptly allow the City and their authorized representatives upon presentation of credentials, to:~~

- ~~1. — Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations, inspections or surveys;~~
- ~~2. — Bring such equipment upon the permitted site as is necessary to conduct such inspections, surveys and investigations;~~
- ~~3. — Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this permitted site;~~
- ~~4. — Inspect the stormwater pollution control measures (BMPs);~~
- ~~5. — Sample and monitor any items or activities pertaining to stormwater pollution control measures (BMPs).~~

~~Any temporary or permanent obstruction to the safe and easy access of such an inspection shall be promptly removed upon the inspector's request. The cost of providing such access shall be born by the Permittee.~~

~~K. — Inspections of the ESQC Plan's BMPs. At a minimum, such inspections shall be done weekly by the Permittee (general contractor, developer or the developer's designated representative), and within twenty four hours after every storm or snow melt event large enough to result in runoff from the site (approximately 0.25 inches or more in twenty four hours). At a minimum, these inspections shall be done during active construction.~~

~~L. — Other Permits. All conditions of the Colorado Department of Public Health and Environment (CDPHE) Stormwater Construction Permit and the City's Municipal Separate Storm Sewer Systems (MS4) CDPS General Permit shall be met prior to issuance of an ESQC Permit.~~

14.02.060 Other Permits.

The project owner is responsible for ensuring all other applicable, local, state and federal permits are obtained prior to initiating land disturbing activities. Construction sites meeting the definition of applicable construction activity also meet the applicability requirements of the Colorado Discharge Permit System (CDPS) Stormwater Discharges Associated with Construction Activity (COR400000) permit. Projects that require construction dewatering require additional CDPS permit coverage for that activity. Sites occurring in a live stream or within a designated floodplain may also be subject to additional local and federal permitting requirements.

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.02.020 Erosion and stormwater quality control plan (ESQC plan).~~

14.03 Grading and Erosion Control Plan

~~A. The ESQC Plan shall consist of the following:~~

- ~~1. Stormwater Management Plan (SWMP), consistent with guidelines outlined in the CDPHE Stormwater Construction Permit and El Paso County SWMP Checklist.~~
- ~~2. Detailed Grading and Erosion Control Plan (GEC) consistent with the El Paso County GEC Submittal Checklist.~~

~~B. The ESQC plan must be:~~

- ~~1. Consistent with the ESQC Permit approved by the Stormwater Manager, including any special provisions or conditions.~~
- ~~2. In conformance with the requirements of the City of Manitou Springs Municipal Specifications, this Code, the Zoning Code, the Subdivision Regulations, and any other necessary permits required and issued by other government agencies.~~
- ~~3. Sealed and signed by a Professional Engineer registered in the State of Colorado.~~
- ~~4. Submitted to the Stormwater Manager for approval.~~
- ~~5. Approved by the Stormwater Manager prior to commencing construction.~~

~~C. The ESQC Plan, in a format acceptable to the Stormwater Manager, shall contain a drawing or drawings delineating the features, described to be implemented, including details of perimeter protection, construction phasing, storm drain inlet protection, erosion control measures, temporary stabilization measures, including all BMPs. In addition the construction specifications shall contain technical provisions describing erosion, sedimentation, and water control measures to be utilized during construction as well as to define the entities responsible for the installation and maintenance of the BMPs. The ESQC Plans must be incorporated into the approved construction documents.~~

~~(Ord. 1507 § 1 (part), 2008)~~

A Grading and Erosion Control Plan (GEC Plan) meeting the requirements of this Title shall be submitted with all applications for a Grading and Erosion Control Permit for applicable construction activities and applicable development sites. The GEC Plan shall be developed, signed and stamped by a professional engineer licensed to work in Colorado. The GEC Plan shall be developed to include all the required

elements and standard notes identified in the Grading and Erosion Control Plan Checklist provided by the Planning Department.

14.04 Permanent Stormwater Management.

All applicable development sites shall have operational permanent stormwater quality control measures at the completion of the site. In the case where permanent water quality control measures are part of future phasing, the owner must have a mechanism to ensure that all control measures will be implemented, regardless of completion of future phases or site ownership. In such cases, temporary water quality control measures must be implemented as feasible and maintained until removed or modified. All stormwater water quality control measures must meet one of the base design standards of this Chapter.

14.04.01 Exclusions.

The following sites may be excluded from the definition of applicable development site.

- A. Pavement Management Sites: Sites, or portions of sites, for the rehabilitation, maintenance, and reconstruction of roadway pavement, which includes roadway resurfacing, mill and overlay, white topping, black topping, curb and gutter replacement, concrete panel replacement, and pothole repair. The purpose of the site must be to provide additional years of service life and optimize service and safety. The site must be limited to the repair and replacement of pavement in a manner that does not result in an increased impervious area and the infrastructure must not substantially change. The types of sites covered under this exclusion include day-to-day maintenance activities, rehabilitation, and reconstruction of pavement. Roadways include: roads and bridges that are improved, designed or ordinarily used for vehicular travel, and contiguous areas improved, designed and ordinarily used for pedestrian or bicycle traffic; drainage for the roadway; and/or parking along the roadway. Areas used primarily for
- B. Excluded Roadway Redevelopment: Redevelopment sites for existing roadways, when one of the following criteria is met:
 - A. The site adds less than 1 acre of paved area per mile of roadway to an existing roadway, or
 - B. The site does not add more than 8.25 feet of paved width at any location to the existing roadway.
- C. Excluded Existing Roadway Areas: For redevelopment of existing roadways, only the area of the existing roadway is excluded from the requirements of an applicable development site when the site does not increase the width by two times or more, on average, of the original roadway area. The entire site is not excluded from being considered an applicable development site for this exclusion. The area of the site that is part of the added new roadway area is still an applicable development site.
- D. Aboveground and Underground Utilities: Activities for installation or maintenance of underground utilities or infrastructure that does not permanently alter the terrain, ground

cover, or drainage patterns from those present prior to the construction activity. This exclusion includes, but is not limited to, activities to install, replace, or maintain utilities under roadways or other paved areas that return the surface to the same condition.

- E. Large Lot Single Family Sites: A single-family residential lot, greater than or equal to 2.5 acres in size per dwelling and having a total lot impervious area of less than 10 percent. A total lot imperviousness greater than 10 percent is allowed when a study specific to the watershed and/or MS4 shows that expected soil and vegetation conditions are suitable for infiltration/filtration of the WQCV for a typical site, and the permittee accepts such study as applicable within its MS4 boundaries. The maximum total lot impervious covered under this exclusion shall be 20 percent.
- F. Non-Residential and Non-Commercial Infiltration Conditions: This exclusion does not apply to residential or commercial sites for buildings. This exclusion applies to applicable development sites for which post-development surface conditions do not percentile stormwater runoff event. In addition, post-development surface conditions must not be projected to result in a surface water discharge from the 80th percentile stormwater runoff events. percentile event must be infiltrated and not discharged as concentrated flow. For this exclusion to apply, a study specific to the site, watershed and/or MS4 must be conducted. The study must show rainfall and soil conditions present within the permitted area; must include allowable slopes, surface conditions, and ratios of impervious area to pervious area; and the permittee must accept such study as applicable within its MS4 boundaries.
- G. Sites with Land Disturbance to Undeveloped Land that will Remain Undeveloped: Permittees may exclude sites with land disturbance to undeveloped land (land with no human-made structures such as buildings or pavement) that will remain undeveloped after the site.
- H. Stream Stabilization Sites: Permittees may exclude stream stabilization sites.
- I. Trails: Bike and pedestrian trails are excluded. Bike lanes for roadways are not included in this exclusion, unless attached to a roadway that qualifies under another exclusion in this section.

14.04.02 Base Design Standards.

The City's oversight for applicable development sites shall be implemented to address the selection, installation, implementation, and maintenance of control measures in accordance with requirements of the MS4 permit. The "base design standard" is the minimum design standard for new development and redevelopment. The permanent control measures for applicable development sites shall meet one of the following base design standards.

- 1. WQCV Standard: The control measure(s) is designed to provide treatment and/or infiltration of the WQCV and:
 - A. 100% of the applicable development site is captured, except the owner may exclude up to 20 percent, not to exceed 1 acre of the applicable development site area when the City has determined that it is not practicable to capture runoff from portions of the site that will not drain towards control measures. In addition, the owner must also determine that the implementation of a separate control measure for that portion of the site is not practicable (e.g., driveway access that drains directly to the street).
 - B. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism

and functionality of the control measure implemented. Consideration of drain time shall include maintaining vegetation necessary for operation of the control measure (e.g., wetland vegetation).

2. Pollutant Removal Standard: The control measure(s) is designed to treat at a minimum the 80th percentile storm event. The control measure(s) shall be designed to treat stormwater runoff in a manner expected to reduce the event mean concentration of total suspended solids (TSS) to a median value of 30 mg/L or less.

100% of the applicable development site is captured, except the owner may exclude up to 20 percent not to exceed 1 acre of the applicable development site area when the owner has determined that it is not practicable to capture runoff from portions of the site that will not drain towards control measures. In addition, the owner must also determine that the implementation of a separate control measure for that portion of the site is not practicable (e.g., driveway access that drains directly to the street).

3. Runoff Reduction Standard: The control measure(s) is designed to infiltrate into the ground where site geology permits, evaporate, or evapotranspire a quantity of water equal to 60% of what the calculated WQCV would be if all impervious area for the applicable development site discharged without infiltration.

This base design standard can be met through practices such as green infrastructure. "Green infrastructure" generally refers to control measures that use vegetation, soils, and natural processes or mimic natural processes to manage stormwater. Green infrastructure can be used in place of or in addition to low impact development principles.

4. Applicable Development Site Draining to a Regional WQCV Control Measure: The regional WQCV control measure must be designed to accept the drainage from the applicable development site. Stormwater from the site must not discharge to a water of the state before being discharged to the regional WQCV control measure. The regional WQCV control measure must meet the requirements of the WQCV in B.1.above.

5. Applicable Development Site Draining to a Regional WQCV Facility: The regional WQCV facility is designed to accept drainage from the applicable development site. Stormwater from the site may discharge to a water of the state before being discharged to the regional WQCV facility. Before discharging to a water of the state, at least 20 percent of the upstream imperviousness of the applicable development site must be disconnected from the storm drainage system and drain through a receiving pervious area control measure comprising a footprint of at least 10 percent of the upstream disconnected impervious area of the applicable development site. The control measure must be designed in accordance with a design criteria included in this Title. In addition, the stream channel between the discharge point of the applicable development site and the regional WQCV facility must be stabilized.

The regional WQCV facility must meet the following requirements:

- A. The regional WQCV facility must be implemented, functional, and maintained following good engineering, hydrologic and pollution control practices.
- B. The regional WQCV facility must be designed and maintained for 100% WQCV for its entire drainage area.

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- C. The regional WQCV facility must have the capacity to accommodate the drainage from the applicable development site.
 - D. The regional WQCV facility be designed and built to comply with all assumptions for the development activities planned by the permittee within its drainage area, including the imperviousness of its drainage area and the applicable development site.
 - E. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the facility. Consideration of drain time shall include maintaining vegetation necessary for operation of the facility (e.g., wetland vegetation).
 - F. The permittee shall meet the requirements in Parts I.E.4.a.v. and vii. and Part I.E.4.b. for the regional WQCV facility consistent with requirements and actions for control measures.
 - G. The regional WQCV facility must be subject to the City's authority.
 - H. Regional Facilities must be designed and implemented with flood control or water quality as the primary use. Recreational ponds and reservoirs may not be considered Regional Facilities. Water bodies listed by name in surface water quality classifications and standards regulations (5 CCR 1002-32 through 5 CCR 1002-38) may not be considered regional facilities.

6. Constrained Redevelopment Sites Standard.

- A. Applicability: the design standards in this paragraph may be used for sites meeting the following constrained redevelopment sites criteria.

- 1) The applicable redevelopment site is for a site that has greater than 75% impervious area, and
- 2) The City has determined that it is not practicable to meet any of the base design standards of this section. The City's determination shall include an evaluation of the applicable redevelopment site's ability to install a permanent control measure without reducing surface area covered with the structures.

- B. Constrained Redevelopment Sites Design Standard. The control measure(s) is designed to meet **one** of the following:

- 1) Provide treatment of the WQCV for the area captured. The captured area shall be 50% or more of the impervious area of the applicable redevelopment site. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the control measure implemented,
- 2) The control measure(s) is designed to provide for treatment of the 80th percentile storm event. The control measure(s) shall be designed to treat stormwater runoff in a manner expected to reduce the event mean concentration of total suspended solids (TSS) to a median value of 30 mg/L or less.

A minimum of 50% of the applicable development area including 50% or more of the impervious area of the applicable development area shall drain to the control measure(s). This standard does not require that 100% of the applicable redevelopment site area be directed to control measure(s) as long as the overall removal goal is met or exceeded (e.g., providing increased removal for a smaller area), or

- 3) Infiltrate, evaporate, or evapotranspiration, through practices such as green

infrastructure, a quantity of water equal to 30% of what the calculated WQCV would be if all impervious area for the applicable redevelopment site discharged without infiltration.

14.04.03 Financial Surety.

Grading and Erosion Control Plans that include the construction of public and private development improvements shall be required to provide financial security pursuant to Title 18. The financial surety amount shall be determined by the engineer of record and based on the current Financial Assurance Estimate form provided by El Paso County. The owner shall submit financial security to the Planning Department prior to the approval of the Grading and Erosion Control Permit.

14.04.04 Final As-built Drawings.

All GEC Plans that include the construction of public and private development improvements shall provide Final As-built construction drawings for all public improvements and public and private permanent stormwater quality control structures. The final as-built drawings shall document the final configurations for all improvements as they were constructed. The professional engineer of record, registered in the State of Colorado shall certify the final as-built plans. If no significant or material changes occurred between the approved plans and final construction, the owner may submit a letter from the engineer of record certifying conformance with the approved plans and construction drawings. In this case, record drawings are not required to be submitted to the Planning Department.

14.04.05 Permanent Control Measure Operation, Maintenance and Access.

The MS4 Permit requires the City to ensure the long-term operation and maintenance of permanent stormwater quality control measures. The City must implement inspection and acceptance procedures to ensure that PCMs are constructed, implemented, and operate in accordance with the approved GEC Plan, construction drawings and drainage report. All applicable development sites shall have operational permanent water quality control measures at the completion of the site.

1. Confirmation that post-construction stormwater quality control measures operate according to approved plans occurs through the use of an inflow hydrograph routed through a basin model. This analysis and the resulting hydrograph shall be performed by the Engineer of Record for the owner or authorized agent of the applicable development site and provided with Final Drainage Report included in the development plan submitted to the Planning Department. If the Planning Director determines that significant changes to the approved plans are identified in the "as-built" drawings, an additional inflow hydrograph based on the "as-built" changes shall be provided to the City to confirm that the changes made during construction did not negatively alter the effective operation of the control measure.
2. Ownership. Permanent stormwater management infrastructure, including but not limited to storm drain inlets, swales, channels, pipes, and PCMs located on private property shall be owned and operated by the owner of the property on which the structures are located.
3. Easement. Prior to approval of a subdivision or issuance of a Certificate of Occupancy, owners of applicable development sites with permanent stormwater quality control measures, shall submit to

the Planning Department a signed private maintenance and access agreement for all permanent control measures that were constructed. This agreement shall be submitted to and recorded by the El Paso County Clerk and Recorder. The City uses these agreements as the primary mechanism to ensure the long-term operation and maintenance of post construction stormwater quality control measures. The agreement shall also provide for access by the City for inspection and repair if required. The agreement templates are available through the Planning Department.

4. Operation and Maintenance Manual. A detailed Operation and Maintenance Manual covering inspections, operation and maintenance of permanent BMPs shall be provided to the person responsible for the Private Maintenance Agreement for Permanent BMPs. The Operation and Maintenance Manual shall include specifics on frequency of inspections and maintenance; standards for vegetation or structures, such as species of vegetation, mowing height, revegetation of worn or eroded areas, cleaning methods; depth of sediment requiring removal; replacement frequencies; and other relevant topics.
5. Acceptance. Upon completion of all required corrective actions or maintenance items identified in a Final Inspection report, a PCM will be added into the Manitou Springs Permanent Control Measure Inventory. Addition to the City inventory does not negate the owner's the long-term operation and maintenance requirements for the PCMs.
6. Inspections. The owner of PCMs shall inspect each facility in accordance with the Operations and Maintenance Manual. The City will inspect private PCMs at minimum once every year to evaluate the long-term operation and maintenance of structures. If during an inspection of a post-construction stormwater quality control structure it is determined and documented by a City Inspector that any owner or authorized agent failed to adequately operate and maintain a permanent stormwater quality control measures or remove the temporary control measures, an enforcement action described in this Title.

14.05 Enforcement.

A process of escalating enforcement measures will be used to ensure compliance with City Grading and Erosion Control Permits and the City MS4 permit. Enforcement shall be applied to sites with an existing GEC Permit, and sites that do not obtain a GECP permit when one is required prior to starting construction. In addition to the enforcement provisions in Title 18, the enforcement procedures included in the Section will be used for applicable construction activities and applicable development sites.

14.05.01 Sites with a GEC Permit.

It is the responsibility of the owner to take all necessary measures to ensure that the site is in compliance with the GEC Permit. The basis for implementing enforcement actions are the inspections conducted by the City and the QSM for the site. City Inspectors will take a compliance assistance approach with the owner during inspections. However, Failure to adequately respond to noncompliance findings documented in any Inspection Report provided by the City may result in an enforcement action.

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1. **Escalation.** The MS4 permit requires an enforcement process and sanctions designed to minimize the occurrence of violations and obtain compliance from chronic and recalcitrant violators of stormwater control measure requirements. Thus, escalation of enforcement must occur, as necessary, based upon the severity of the violation and/or the recalcitrance of the violator. As a general outline, the following process will be followed until the site is brought into compliance:

Non-compliance documented on Inspection Report > Verbal Notice of Noncompliance > Written Notice of Noncompliance > Stop Work Order > Revocation of Permit > Performance of Remedial Work and/or Court Order.

The City will exercise its discretion in applying enforcement mechanisms as circumstances warrant. Accelerated enforcement action or the immediate imposition of stricter remedies may be pursued in certain instances. Factors to be considered include:

- Recurrence of the same violation at a site,
- Repeated failure to correct violations at a site; and
- A history of noncompliance or recalcitrance.

2. **Correction of Noncompliance.** With each inspection the City performs at a site, the inspector will document any observed violations of the GEC Permit and SWMP. The owner will remain noncompliant until all violations are corrected.

When the City Inspector observes violations of the GEC Permit, the findings will be documented in the inspection report. Examples of findings include failure to implement control measures, inadequate control measures, or control measures requiring routine maintenance. At the subsequent Compliance Inspection (within 14 days of the previous inspection), if the findings have not been resolved before or during the inspection, then the City Inspector may issue a Notice of Noncompliance to the owner.

When control measures have not been implemented, are inadequate, or require routine maintenance, the owner shall take all necessary steps to minimize or prevent the discharge of pollutants. If it is not feasible to immediately install, repair, or perform maintenance on a control measure, the SWMP must be amended to describe the reason(s) such action is infeasible and establish a schedule for installing, repairing, or performing maintenance as soon as possible.

The owner shall remove and properly dispose of any unauthorized release or discharge (e.g., non-stormwater discharge, trash, sediment, spill, or leak) and clean up any contaminated surfaces on site to minimize future unauthorized discharges.

3. **Notice of Noncompliance.** There are two types of Notices of Noncompliance issued by the City.

- A. **Initial Notice of Noncompliance.** During a Compliance Inspection the City Inspector will identify findings from the previous report that have not been resolved and identify these issues as noncompliant in the current inspection report. The informal notice of noncompliance will be provided to the owner as a note in the inspection report. During a subsequent Compliance Inspection (within 14 days of the previous inspection), if the findings have not been resolved before or during the inspection, the City Inspector may issue a Formal Notice of Noncompliance to the owner.

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- B. Formal Notice of Noncompliance.** Following issuance of the Informal Notice of Noncompliance the City will conduct a follow-up Compliance Inspection (within 14 days of the previous Compliance Inspection) to determine if the previous findings were adequately resolved. Findings that have not been adequately resolved from the previous report will be documented in the current Compliance Inspection report and the City Inspector will issue a Formal Notice of Noncompliance. This is a written notice to formally inform the owner that the permitted site is not in compliance with the GEC Permit or other requirements of City criteria, codes or ordinances relating to grading, erosion, and stormwater quality. Failure to subsequently correct the violations prior to the next Compliance Inspection will result in the issuance of a Stop Work Order.
4. **Stop Work Order.** A Stop Work Order (SWO) is a written order to immediately cease all construction activities at a site. The SWO may be issued by the Planning Director or City Inspector to the owner. An immediate SWO (i.e., enforcement notifications steps described above are skipped) shall be issued when the owner has failed to obtain a Notice to Proceed prior to commencing any land disturbing activities. An immediate SWO may also be issued if the owner has demonstrated noncompliance with the GEC Permit after repeated and documented attempts by the City Stormwater Inspector to bring the site into compliance (i.e., Informal Notice of Noncompliance and Formal Notice of Noncompliance) or if the impacts of noncompliance are great enough, in the City's discretion, to warrant issuance of a SWO. When a SWO is issued, it requires all work on the site to cease. No further land use approvals relative to the site will be allowed by the City, nor will work be allowed to resume, until the owner takes the measures necessary to bring the site into compliance, as described in the SWO. The only work that may continue under a SWO is work associated with bringing the site into compliance and/or stabilizing all land disturbance using temporary or permanent stabilization measures. The owner shall notify the City Inspector, once corrective actions are completed, in order to schedule a follow-up inspection. The City Stormwater Inspector will perform a Compliance Inspection to verify satisfactory completion of required corrective actions identified in the SWO. No work shall commence until the owner receives the Compliance Inspection report with a written notice to resume full Construction Activities.
5. **Revocation of Permit.** The City may revoke a GEC Permit if the requirements of the SWMP and GEC Plan are not implemented. Revocation of the GEC Permit results in a Stop Work Order and the owner shall submit to the Planning Director an adequate SWMP, GEC Plan, a new permit application, fees. This enforcement level is used in the following instances.
- A. A site refuses to comply with a SWO.
- B. The current stormwater management plan has been demonstrated to be inadequate and the owner failed to take the necessary measures to improve the plan,
- C. The owner received three (3) Stop Works Orders, independent of site, from the city within a rolling twelve (12) month period.
6. **Performance or Contracting of Remedial Work.** If the owner does not successfully complete all required work or violates any requirement of the GEC Permit, the City may take remedial measures (e.g., City staff or a private contractor may be retained to perform remedial work), charge the cost to the owner, and draw on posted collateral to cover such cost. Such costs shall include the actual cost of any work deemed necessary by the City plus reasonable administrative and inspection costs and penalties, as established by Resolution adopted by the City Council or by a fee schedule

adopted by the Planning Director as authorized by the City Council. If the total of such costs exceeds the owner collateral, as determined by the approved FAE Form, the owner shall be responsible for payment of the remaining balance within thirty calendar days of receipt of an accounting of such from the City. This enforcement level is used when a site is vulnerable to significant erosion or sediment migration and offsite discharge of pollutants and when the owner cannot or will not come into compliance.

7. **Civil Court Action.** Failure to comply with a SWO or Revocation of Permit, or failure to reimburse the City for costs incurred in the Performance or Contracting of Remedial Work, may result in a civil court action being filed against the owner.

14.05.02 Sites without a GEC Permit.

When construction activity is started without an approved GEC Permit, the City considers the owner the ultimate responsible party for all construction activities. When a City Inspector determines that applicable construction activity is occurring or has occurred without an approved GEC Permit, an immediate SWO will be issued to the owner. All construction activity shall cease at the site until a Grading and Erosion Control Permit is obtained from the City. The only work that may continue is implementation of control measures to prevent an offsite discharge. The owner shall follow the procedures outlined in Title 18 and this Title 14 of City Code to obtain the required approval(s). Failure to comply with a SWO may result in a Civil Court Action being filed against the owner.

14.05.03 Illicit Discharges.

The City at its discretion may consider an unauthorized discharge of a pollutant to the MS4 or waters of the state as illicit discharge. In such cases, additional enforcement provided in Title 6 may be pursued. When an illicit discharge occurs directly into Waters of the State, the City, may notify the Colorado Department of Public Health and Environment pursuant to the reporting requirements included in the City MS4 permit or the CDPS General Permit for Stormwater Discharges Associated with Construction Activity.

~~1.—~~

~~14.02.040 New development stormwater management.~~

~~Stormwater quality control best management practices (BMPs) included as part of the final construction for a new development or a significant redevelopment shall be addressed in the grading and erosion control plan and shall comply with the following requirements:~~

- ~~A. — Pre Versus Post Hydrological Response of Site. An applicant shall install or construct, on or for the proposed land disturbing activity or development activity, all stormwater management facilities necessary to manage runoff such that increases in flow under the design conditions will not occur that could exceed the capacity of the outlet, or the stormwater management system, into which the site discharges or that would cause the stormwater management system to be overloaded or accelerate channel erosion as a result of the proposed land disturbing activity or development activity. Under no circumstances shall the two, ten, or one hundred year developed peak flow exceed the two, ten, or one hundred year existing peak flow without prior written approval by the stormwater manager. For regional detention or stormwater management system, the stormwater manager shall recommend a~~

proposed system charge or assessment to be approved by the city council based upon an approved watershed master plan and an analysis of required drainage systems, projected costs and flood protection benefits provided to those properties directly or indirectly impacted by the regional detention or stormwater management system.

- B. ~~Natural Features of the Site.~~ The applicant shall give consideration to reducing the need for stormwater management system facilities by incorporating the use of natural topography and land cover such as wetlands, ponds, natural swales and depressions as they exist before development to the degree that they can accommodate the additional water flow without compromising the integrity or quality of these natural features.
- C. ~~Stormwater Management Strategies.~~ The following stormwater management practices shall be investigated when developing permanent erosion control and stormwater quality best management practices (BMPs) for the grading and erosion control plan:
 - 1. ~~Natural infiltration of precipitation and runoff on-site, if suitable soil profiles can be created during site grading. The purpose of this strategy is to encourage the development of a grading and erosion control plan that encourages natural infiltration. This includes providing as much natural or vegetated area on the site as possible, minimizing impervious surfaces, and directing runoff to vegetated areas rather than onto adjoining streets, storm sewers and ditches;~~
 - 2. ~~Flow attenuation by use of open vegetated swales and natural depressions;~~
 - 3. ~~Stormwater detention facilities;~~
 - 4. ~~Stormwater retention facilities; and~~
 - 5. ~~Other facilities, as requested by the stormwater manager.~~
- C. ~~All permanent BMPs shall be in conformance with the requirements of the City of Manitou Springs Municipal Specifications, this Code, the zoning code, the subdivision regulations, and any other necessary permits required and issued by other government agencies.~~
- D. ~~Structural BMPs, such as pipes and inlets, located on private property shall be owned and operated by the owners of the property on which the BMP is located, unless the city in writing agrees that a person other than the owner shall own or operate such BMP.~~
- E. ~~As a condition of approval of the BMP, the owner shall agree to maintain the BMP to its design capacity unless or until the city relieves the property owner of that responsibility in writing. The obligation to maintain the BMP shall be memorialized on the subdivision plat, annexation plat, development agreement or other instrument in a form acceptable to the city and shall be recorded in the office of the county clerk and Recorded.~~
- F. ~~Certification of Permanent BMPs. Upon completion of a project, and before a certificate of occupancy shall be granted, the city shall be provided a written certification stating that the completed project is in compliance with the approved grading and erosion control plan. All applicants are required to submit final "as built" grading and erosion control plans for any permanent BMPs after final construction is completed and must be certified by a Colorado licensed professional engineer. A final inspection by the city is required before the release of any performance securities can occur.~~
- G. ~~Ongoing Inspection and Maintenance of Permanent BMPs.~~
 - 1. ~~Maintenance Agreements. The owner of site must, unless an on-site stormwater management facility or practice is dedicated to and accepted by the city, execute an inspection and maintenance agreement that shall be binding on all subsequent owners of the permanent BMPs.~~
 - 2. ~~Long Term Inspection of Permanent BMPs. Permanent BMPs included in a final grading and erosion control plan which are subject to an inspection and maintenance agreement must~~

undergo ongoing inspections to document maintenance and repair needs and to ensure compliance with the requirements of the agreement, the plan and this chapter.

(Ord. 1507 § 1 (part), 2008)

14.02.050 Technical standards and specifications.

- A. All BMPs (temporary and permanent) designed to meet the requirements of this chapter shall comply with the following technical standards:
1. Applicable procedures and guidelines outlined in the city specifications, this code, the zoning code and the subdivision regulations.
 2. By reference, the City of Colorado Springs Drainage Criteria Manual, Volume I, dated May 2014, and as may be amended.
 3. By reference, the City of Colorado Springs Drainage Criteria Manual, Volume II, dated May 2014, and as may be amended.
- B. All proposed BMPs shall be approved prior to construction. Details of proposed BMPs and appropriate specifications shall be submitted with the Erosion and Stormwater Quality Control Plan (ESQC Plan) Grading and Erosion Control Plan.

(Ord. No. 29106, § 1, 9-20-2016; Ord. 1507 § 1 (part), 2008)

14.02.060 Operation, maintenance and inspection.

All stormwater management systems shall be designed to minimize the need for maintenance, to provide easy vehicle (typically eight feet or wider) and personnel access for maintenance purposes, and to be structurally sound. All stormwater management systems shall have a plan of operation and maintenance that assures continued effective removal of pollutants carried in stormwater runoff. The stormwater manager may inspect all public and private stormwater management systems at any time. Inspection records will be kept on file at the stormwater manager. It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow to the stormwater management system for inspection and maintenance purposes. The stormwater manager shall retain enforcement powers for assuring adequate operation and maintenance activities through permit conditions, penalties, noncompliance orders and fees.

The city or its designated representative shall inspect all stormwater management systems during construction, during the first year of operation and at least once every five years thereafter. The city will keep all inspection records on file for a period of three years beyond the Colorado Department of Public Health and Environment (CDPHE) Stormwater Construction Permit period.

(Ord. 1507 § 1 (part), 2008)

14.02.070 Easements.

Easements may be required as conditions to the approval of a grading and erosion control plan or issuance of an ESQC permit. If a grading and erosion control plan involves directing some or all of the site's runoff to a drainage easement, the applicant or his designated representative shall obtain from the property owners any necessary easements or other property interests concerning the flowing of such water.

(Ord. 1507 § 1 (part), 2008)

~~14.02.080 Grading and erosion control plan amendment.~~

~~Grading and erosion control plans may be amended only by a written request submitted to the development director and stormwater manager. This request shall contain the reason for the change and documentation related to any additional change in projected impacts, which may result from amendment approval. Amendment requests submitted prior to final approval of a plan application shall be considered part of the original submittal. Amendment requests filed after plan approval shall be considered following the same procedures as if it were a new application and subject to all applicable fees and review periods.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.02.090 Final (as-built) grading and erosion control plan.~~

~~Upon completion of all required construction activities, the poermittee shall submit to the stormwater manager a final grading and erosion control plan to document any elevation changes greater than 0.5 feet or material modifications to the approved grading and erosion control plan. The final grading and erosion control plan shall contain record drawings showing the final configuration for all improvements as constructed. A professional engineer registered in the State of Colorado shall certify the final grading and erosion control plan and record drawings. If no significant or material changes occurred between the approved plan and final construction, the owner shall submit a letter certifying conformance with the original grading and erosion control plan and record drawings need not be submitted to the stormwater manager. The permittee, however, is responsible to retain copies of said drawings and provide them to the stormwater manager upon request. Failure to provide these drawings upon written request constitutes a violation of this code.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~Chapter 14.03 SUSPENSIONS, REVOCATIONS AND STOP WORK ORDERS~~

~~Sections:~~

~~14.03.010 Stormwater violations and reporting.~~

~~A. —Erosion and stormwater quality control permit (ESQC permit) and nonpermit related stormwater violations include, but are not limited to:~~

- ~~1. —Commencing site grading or preparation work without first having obtained the required CDPHE stormwater construction permit and/or an ESQC permit.~~
- ~~2. —Noncompliance with the requirements or conditions attached to an approved SWMP of a CDPHE stormwater construction permit, ESQC permit or other standards established by the stormwater manager, under authority of the city.~~
- ~~3. —The causing or allowing of a prohibited discharge to the city stormwater management system or waters of the state.~~
- ~~4. —Failure to remove sediments transported or tracked onto city streets by vehicles or construction traffic within twenty-four hours of it being deposited on the street.~~
- ~~5. —Failure to install and maintain the erosion control measures (BMPs) on a construction site as outlined in the approved ESQC plans, ESQC permit or other standards established by the stormwater manager, under authority of the city.~~

6. ~~Other violations or issues as noted or described throughout this code.~~

B. ~~The stormwater manager shall document the reporting of a violation in writing. Such violation reports may be obtained via a site inspection or a public complaint followed by a site inspection. At a minimum the complaint file shall contain the name and address of the owner, date, time and nature of the violation as well as other information as deemed necessary to document site conditions, including photos and personal conversation records. In the case of a public complaint the file shall also, if voluntarily provided, contain the name address and phone number of the individual filing the complaint. In addition the complaint file shall contain records documenting subsequent site inspections, compliance actions and a memo outlining the determination of the stormwater manager and any enforcement action taken and/or any noncompliance fees levied.~~

(Ord. 1507 § 1 (part), 2008)

~~14.03.020 Emergency suspension.~~

- A. ~~The stormwater manager may for cause order the suspension of an ESQC permit when the stormwater manager determines that an actual or threatened discharge presents or may present and imminent or substantial danger to the health or welfare of persons downstream, or substantial danger to the environment. If such permits are suspended, all work in the area covered by the permit shall cease immediately. If any person is notified of such suspension and then fails to comply voluntarily with the suspension order, the city shall commence whatever steps are necessary to obtain compliance. The stormwater manager may reinstate the ESQC permit upon proof of compliance with all plan or permit conditions. The stormwater manager may also order the immediate suspension of all work if a person or entity is conducting an activity for which a permit is needed without first obtaining the appropriate permit. The suspension shall remain in effect until the required permit(s) are obtained.~~
- B. ~~Whenever the stormwater manager orders the suspension of a plan or permit and/or orders all work to stop pursuant to the emergency provisions of this section, the stormwater manager shall serve notice on the landowner and/or permittee personally, or by registered or certified mail. The landowner and/or permittee has the right to an informal hearing before the Stormwater Manager upon request made in writing and filed with the Stormwater Manager. The informal hearing must be held within five days of the request. Following the hearing, the Stormwater Manager may affirm, modify or rescind the order.~~
- C. ~~Any person dissatisfied with an order the Stormwater Manager issued pursuant to this section may request a hearing by filing a written request for a hearing with the Stormwater Manager, within fifteen days of receipt of the order. The hearing must be held within ten days of receipt of the request. A request for a hearing filed pursuant to this section does not stay the order while the hearing is pending.~~

(Ord. 1507 § 1 (part), 2008)

~~14.03.030 Non-emergency revocation of a permit.~~

- A. ~~An ESQC Permit may be revoked following written notice of violation. An opportunity for a hearing with the Stormwater manager will be provided within five business days. The Stormwater Manager may revoke a plan or permit for cause, including but not limited to:~~
- ~~1. Violation of any terms or conditions of the applicable plan or permit;~~
 - ~~2. False statements on any required reports and applications;~~
 - ~~3. Obtaining a plan or permit by misrepresentation or failure to disclose fully all relevant facts; or~~
 - ~~4. Any other violation of this Code or related ordinance.~~

B. ~~The Stormwater Manager may revoke an ESQC Permit and order a temporary work stoppage to bring a project into compliance. Notice of such an order shall be given and a hearing opportunity provided. Under a revoked plan or permit no additional permit approvals (i.e., building, excavation, etc.) shall be issued for any properties within the area included within the plan or permit boundaries until approved by the Stormwater Manager. In addition the City may deny new permits (i.e., stormwater, building, excavation, etc.) to the Permittee or Landowner in violation for projects in other locations until current permits are brought into compliance.~~

(Ord. 1507 § 1 (part), 2008)

14.03.040 Notification.

Whenever the Stormwater Manager finds that any person has violated or is violating this Code, the approved ESQC Plans, the ESQC Permit and/or its conditions, or any prohibition, limitation or requirement contained herein, the Stormwater Manager shall serve upon such person a written notice stating the nature of the violation. Within seven days of the date of the notice, unless a shorter time frame is set by the Stormwater Manager due to the nature of the violation, a plan is not submitted in a timely manner, or the terms of such plan are not followed, the Stormwater Manager may order all work in the affected area to cease until submittal of such a plan and compliance with the plan is happening.

(Ord. 1507 § 1 (part), 2008)

14.03.050 Appeals.

A. ~~Appeals of Stormwater Manager Decisions.~~

1. ~~Scheduling Appeals. Any person aggrieved by an appealable administrative decision made by the Stormwater Manager may file a formal appeal application with the City Administrator within ten days from the date of the decision. The City Administrator shall schedule a hearing of the appeal within thirty days from the date of receipt of the application for appeal. Written notice of the hearing date, specifying the time and place, shall be provided to the appellant either personally or by registered or certified mail at least five days before the hearing. The evidence submitted at the hearing shall be considered by the City Administrator, who shall either affirm, reverse, modify, or remand back to the Stormwater Manager for additional review of the appealed decision(s).~~
2. ~~Submittal Requirements for Review of an Appeal of an Administrative Decision. In the written appeal application, the appellant must substantiate the following:~~
 - a. ~~Identify the explicit Code provisions that are in dispute;~~
 - b. ~~Show that the administrative decision is incorrect because of one or more of the following:~~
 - i. ~~It was against the language of this Stormwater Quality Code, or~~
 - ii. ~~It was against the expressed intent of this Stormwater Quality Code, or~~
 - iii. ~~It is unreasonable, or~~
 - iv. ~~It is erroneous, or~~
 - v. ~~It is clearly contrary to law;~~
 - c. ~~Identify the benefits and adverse impacts created by the decision, describe the distribution of the benefits and impacts between the community and the appellant, and show that the burdens placed on the appellant outweigh the benefits accrued by the community.~~

3. ~~Criteria for Review of an Appeal of an Administrative Decision.~~

- a. ~~Code was interpreted or applied erroneously.~~
- b. ~~Granting the appeal is not a detriment to public health, safety or welfare.~~

4. ~~Stays of Administrative Decisions. Unless the Office has suspended the Permit or ordered work to stop, a perfected appeal shall operate as a stay of the administrative decision unless determined otherwise by City Administrator.~~

5. ~~Failure to Appeal. The failure to appeal an administrative decision within the ten-day period shall be deemed to be a waiver of the applicant's, or a party in interests, right to appeal to the City Administrator and a failure to exhaust administrative remedies.~~

~~Failure to Appeal. The failure to appeal the decision of the City Administrator within the ten-day period shall be deemed to be a waiver of the applicant's or a party in interest's right to appeal to the City Council for failure to exhaust administrative remedies.~~

6. ~~Appeal Filing Fee. Any person pursuing an appeal pursuant to this subsection shall be responsible for the payment of all fees, per the published fee schedule, and for the completion of all forms which may be prescribed by the City. Failure to pay any required fee or to properly complete any required form shall be deemed a waiver of the right to appeal.~~

B. ~~Appeals of City Administrator Decisions.~~

1. ~~Notice of Appeal. Any person may appeal to the City Council any action of the City Administrator in relation to this Stormwater Quality Code, by filing a written notice of appeal with the City Clerk. The notice of appeal shall be filed with the City Clerk no later than ten days after the action from which appeal is taken, and shall briefly state the grounds upon which the appeal is based.~~

2. ~~Submittal Requirements for Review of an Appeal of a City Administrator Decision. In the written notice, the appellant must substantiate the following:~~

- a. ~~Identify the explicit Code provisions that are in dispute;~~
- b. ~~Show that the City Administrator's decision is incorrect because of one or more of the following:~~
 - i. ~~It was against the language of this Stormwater Quality Code, or~~
 - ii. ~~It was against the expressed intent of this Stormwater Quality Code, or~~
 - iii. ~~It is unreasonable, or~~
 - iv. ~~It is erroneous, or~~
 - v. ~~It is clearly contrary to law;~~

3. ~~Stays of City Administrator Decisions. A perfected appeal shall operate as a stay of the City Administrator's decision unless determined otherwise by City Council.~~

4. ~~Criteria for Review of an Appeal of a City Administrator Decision.~~

- a. ~~Code was interpreted or applied erroneously.~~
- b. ~~Granting the appeal is not a detriment to public health, safety or welfare.~~

5. ~~Action and Procedure by the City Council. Upon receipt of the notice of appeal required by this subsection, the City Clerk shall schedule the item for a City Council meeting. Publication and posting shall be required. The City Council shall hold a public hearing on appeals of a City Administrator~~

~~decision upon the date so scheduled or upon the date to which the same may be postponed or continued.~~

- ~~6. Postponement of Items on Appeal to the City Council. As a matter of course, an appellant may postpone the first scheduled Council hearing or consideration of an appeal from a decision of the City Planning Commission, made in accord with this subsection, to the next following regular Council meeting. Request for any additional postponement shall be only for good cause shown to and found by the City Council. If new or additional evidence is set forth as the grounds for a request for a postponement, the appeal may be referred to the City Administrator for further hearing and recommendations.~~
- ~~7. City Council's Powers Upon Appeal. The City Council shall have the power to refer any matter appealed back to the City Administrator for further consideration or Council may affirm, reverse or modify the action of the City Administrator. City Council may limit the hearing to matters raised on appeal, or may hear the appeal de novo, except in cases of substantial new information or additional evidence. In such cases, the City Council may remand the request back to the City Administrator for further hearing and consideration.~~
8. Failure to Appeal. The failure to appeal the decision of the City Administrator within the ten-day period shall be deemed to be a waiver of the applicant's or a party in interest's right to appeal to the City Council for failure to exhaust administrative remedies.
9. Appeal Filing Fee. The filing fee shall be per the published fee schedule. Failure to pay the fee according to the published fee schedule shall be deemed to be a waiver of the applicant's or a party in interest's right to appeal.

C. Appeals of City Council Decisions. On such appeals, the decision of the City Council shall be final, and shall be subject to review by the courts pursuant to applicable rules and statutes, unless the matter is remanded to the City Administrator. Provided that the City Administrator upholds the order stopping work, such work suspension shall not be stayed as a result of appeal to the District Court.

(Ord. 1507 § 1 (part), 2008)

14.03.060 Legal action.

~~The discharge of deposited or eroded materials onto public rights-of-way or public storm sewer systems within the City of Manitou Springs shall be considered an offense and may result in an order to remove such materials. Removal of such materials shall be at the expense of the Landowner and/or Permittee and shall have three days after receiving the notice to remove these materials. If such materials are not removed, others may remove them under the Public Service Director's order and any associated costs shall be the responsibility of the Landowner or Permittee and, if unpaid within ninety days, may be recommended for assessment action by the City Council against property of the violator.~~

If any person commences any land-disturbing activities which result in increased Stormwater quantity or Stormwater quality degradation into the City's Stormwater Management System contrary to the provisions of this Code, federal or state requirements or any order of the Stormwater Manager, the City Attorney may, commence action for appropriate legal and/or equitable relief including administrative or criminal penalties.

(Ord. 1507 § 1 (part), 2008)

Any person violating any of the provisions of this Code or who initiates an activity that causes a deposit, obstruction, or damage or other impairment to the City's Stormwater Management System is liable to the City for

any expense, loss, or damage caused by the violation or the discharge. The City may bill the person violating this Code the costs for any cleaning, repair or replacement work caused by the violation of stormwater discharge, and if unpaid within ninety days may result in assessment of such costs against the violator's property.

~~Chapter 14.04 ENFORCEMENT, PENALTIES AND NONCOMPLIANCE FEES~~

~~Sections:~~

~~14.04.010 Monitoring, sampling, inspecting and notification of spills.~~

- A. ~~Monitoring and Analysis. The Stormwater Manager may, by written notice, require that any person engaged in any activity or owning or operating any facility which may cause or contribute to stormwater pollution, prohibited discharges, or nonstormwater discharges to the storm drain system or to waters of the state, to undertake at said person's expense such monitoring and analyses, and furnish reports thereof to the City, as the Stormwater Manager may require.~~
- B. ~~Authority to Inspect Private Property. Whenever the Stormwater Manager has cause to believe that there exists or potentially exists, in or upon any premises within the City any condition which is in violation, or is potentially in violation, of any provision of this Code, the Stormwater Manager may enter such premises at any time to inspect the same and to inspect and copy any records related to stormwater compliance. During any inspection, the Stormwater Manager may take such samples and conduct such testing as he or she deems necessary. In the event any owner or occupant of any such property refuses entry, the City may seek assistance from the courts to obtain such entry.~~
- C. ~~Inspections of City Facilities and Infrastructure. The Stormwater Manager shall conduct inspections no less frequently than yearly of the waters in Fountain Creek to check, at a minimum, for suspended solids, grease and oil, chemical oxygen demand and pH. The Public Works Department shall, in addition to regular maintenance of infrastructure, monitoring, and visual point source detection, perform visual inspections no less frequently than quarterly of all sanitary sewer mains in the vicinity of creeks within the City. The City shall be notified of any and all testing and the results thereto, when performed in any creeks within the City.~~
- D. ~~Notification of Spills. In addition to any other requirement of law, as soon as any person responsible for any facility, operation, activity, or property within the City has any information of any known or suspected release into the stormwater drainage system of materials in violation of this Code, said person shall promptly notify the Stormwater Manager by calling 911. The owner of any such facility, operation activity or property shall maintain an on-site record of each such discharge for a minimum of three years following the date of the discharge.~~

(Ord. 1507 § 1 (part), 2008)

~~14.04.020 Enforcement, penalty and noncompliance fees.~~

~~Any person who is found to have violated an order of the Stormwater Manager made in accordance with this Code, or who has failed to comply with any provision of this Code and the orders, rules, regulations and permits issued hereunder, is guilty of an offense. Each day on which a violation occurs or continues to exist shall be deemed a separate and distinct offense. All land use and building permits may be suspended until the applicant has corrected the violation. A schedule for noncompliance and re-inspection fees, which may be imposed for violation of this Code, shall be approved by the City Council.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.04.030 Costs of damage.~~

~~Any person violating any of the provisions of this Code or who initiates an activity that causes a deposit, obstruction, or damage or other impairment to the City's Stormwater Management System is liable to the City for any expense, loss, or damage caused by the violation or the discharge. The City may bill the person violating this Code the costs for any cleaning, repair or replacement work caused by the violation of stormwater discharge, and if unpaid within ninety days may result in assessment of such costs against the violator's property.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.04.040 City attorney's fees and costs.~~

~~In addition to the civil penalties provided herein, the City may recover reasonable attorney's fees, court costs, court reporter's fees, and other expenses of litigation by appropriate action against the person found to have violated this Code or the orders, rules, regulations and permits issued hereunder.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.04.050 Falsifying information.~~

~~Any person who knowingly makes any false statements, representations, or certification in any applicable record, report, plan, permit or other document filed or required to be maintained pursuant to this Code, or who knowingly falsifies, tampers with, or knowingly renders inaccurate any monitoring devices or method required under this Code, shall be guilty of an offense.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.04.060 Penalties.~~

~~Any person violating any provision of this Code, in addition to other sanctions set forth above, may be charged with a criminal misdemeanor per Chapter 1.16 of the Municipal Code of the City of Manitou Springs.~~

~~(Ord. 1507 § 1 (part), 2008)~~

~~14.04.070 Severability.~~

14.06 Severability

If any section, sentence, clause or phrase of this Code is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Code. In addition to any other penalties, any person convicted of any violation of this Stormwater Quality Management and Discharge Control Code shall be punished in accordance with the provisions of Section 1.01.100 of the Code of Ordinances of the City of Manitou Springs.

(Ord. 1507 § 1 (part), 2008)



Memorandum

Title: First Reading of Ordinance No. 1225, An Ordinance Amending Title 6 with the Addition of a New Chapter 6.17 Concerning Discharges to the Municipal Separate Storm Sewer System

From: Frederick Rollenhagen, Planning Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 10 Minutes

June 3, 2025

Purpose:

To remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE), amendments to Titles 6, 13, 14, and 18 of the Municipal Code are being proposed to better address illegal discharges into the city's storm sewer system and waters of the State. Amendments to Title 6 are specifically to provide enforcement authority for the City to enforce any violations of the Stormwater Code found in Title 14.

Background:

In March 2021, the City's stormwater consultant, Chavez Consulting Inc., LLC, conducted a baseline MS4 permit compliance evaluation for the City. The baseline compliance evaluation was an initial evaluation of existing MS4 regulatory mechanisms and program documentation compared to the compliance schedule found in Table 2 of the MS4 permit.

The evaluation had two goals:

1. Identify any issues that may exist relative to the compliance schedule found in Table 2 of the MS4 permit
2. Develop a report with recommendations on how to bring the City into compliance with its MS4 permit, if necessary.

A thorough review of the City's stormwater regulatory mechanisms and the Program Description Document (PDD) was conducted during the baseline compliance evaluation. Although Title 14 appeared to have been updated in 2019, the initial evaluation found several inconsistencies with MS4 permit requirements for construction oversight exemptions, inspection frequencies and inspection scopes. The PDD was determined to be significantly inadequate. These proposed code amendments are the City's follow-up on the recommendations included in the baseline compliance evaluation report. Initially, the Municipal Code will be updated to accurately reflect conditions



included in the MS4 Permit. A new Program Description Document along with several procedural documents will be developed after the Municipal Code is amended.

Pros and Cons:

Pros: Proposed revisions are necessary in order for the City to remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE).

Cons:

If revisions are not made, the City will be out of compliance with its MS4 Permit.

Fiscal Impact:

The City received a \$20,000 matching grant from the Colorado Department of Local Affairs for this project. The \$20,000 match from the City has been allocated to the Planning Department's budget and is being drawn down during the 2024 and 2025 fiscal years as work is being accomplished.

Workload Impact:

This is a major project that was identified as a Planning Department goal for 2025 to complete. Staff secured the DOLA grant, advertised and hired the consultant, and has been working with the consultant in scheduling and holding staff meetings with other City Staff members, reviewing drafts, making and collecting comments on the draft, and recommending revisions. Additionally, staff scheduled and presented these draft revisions to the City Planning Commission for consideration and recommendation on April 9, 2025.

Recommended Action:

Move to approve on First Reading, Ordinance No. 1225, an ordinance amending Title 6 with the addition of a new chapter 6.17 concerning discharges to the municipal separate storm sewer system, and set a public hearing for June 17, 2025, at 6:00 p.m., or as soon thereafter as the matter may be heard.

ORDINANCE

AN ORDINANCE AMENDING TITLE 6 WITH THE ADDITION OF A NEW CHAPTER 6.17 CONCERNING DISCHARGES TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM

WHEREAS, the City desires to amend Chapter 6 and add a new section concerning discharges to the Municipal Separate Storm Sewer system to enable the City to enforce on violations and illicit discharges into the city's storm sewer system.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

Section 1. Title 6 of the Manitou Springs Municipal Code is hereby amended by the addition of a new Chapter 6.17 to read as follows:

Chapter 6.17 – Discharges to the Municipal Separate Storm Sewer System.

6.17.010 – Purpose.

The purpose of this Ordinance is to protect the public health, safety, and welfare of the citizens and residents of Manitou Springs, Colorado, by detecting and eliminating, to the extent possible, illicit discharges into the City's storm sewer system, which, if not eliminated, can result in water pollution detrimental to the health of the City's citizens and natural resources and in substantial sanctions imposed by the Colorado Department of Public Health and Environment.

6.17.020 – Applicability.

This Ordinance shall apply throughout the jurisdictional limits of Manitou Springs, Colorado.

6.17.030 – Definitions.

- A. Council: the City Council of Manito Springs, Colorado.
- B. City: the City of Manitou Springs, Colorado.
- C. City Administrator: the Manitou Springs City Administrator, or his or her authorized designee(s).
- D. City Public Works Manager: the Manitou Springs Public Works Manager, or his or her authorized designee(s).
- E. City storm sewer system: the system of structures owned or operated by the City designed and used for collecting or conveying stormwater. The system includes but is not limited to roads with drainage systems, inlets, catch basins, curbs, gutters, pipes, man-made and natural channels, ditches, detention and water quality basins, and storm drains. The system is not a combined sewer system, or any part of a Publicly Owned Treatment Works (POTW) as defined in 5 CCR 1002-61.2(62).

- F. Division: the Water Quality Control Division of the Colorado Department of Public

Health and Environment.

G. Illicit Discharge: Illicit discharge means any discharge to the city storm sewer system that is not composed entirely of stormwater, including without limitation any discharge of pollutants, except as exempted under Section 4(d), "Discharges to the City Storm Sewer System,"

H. Irrigation Return Flow: tailwater, tile drainage, or surfaced groundwater flow from irrigated land.

I. Owner: the owner of record of a parcel of land, whether person, partnership, firm, corporation, governmental agency, or other association of persons, or any authorized agent or representative of the owner of record.

J. Person: any individual, association of individuals, partnership, firm, corporation, agency, or agent or representative thereof.

K. Public or private property: any land or real property, including but not limited to the right-of-way of any road or highway and any body of water or watercourse.

6.17.040 – Discharges to the City Storm Sewer System.

A. Illicit Discharges Prohibited: No person shall discharge any illicit discharge into or upon the City storm sewer system, any public highway, street, sidewalk, alley, land, public place, waters of the state, ditch or other watercourse or into any cesspool, storm or private sewer or natural water outlet, except as specifically provided in this chapter and in accordance with the Manitou Springs MS4 permit.

B. Cleaning of Hard Surfaces: The owner of any paved parking lot, street or drive shall clean the pavement as necessary to prevent the buildup of pollutants and to prevent an illicit discharge. Paved surfaces shall be cleaned by dry sweeping, wet vacuum sweeping, collection and treatment of wash water or other methods in compliance with this chapter, or other applicable federal, state and local laws.

C. Material Storage: No person shall store materials including, without limitation, stockpiles used in construction and landscaping activities, in a manner which may cause an illicit discharge or threatened illicit discharge into the stormwater management system or receiving water.

D. Exemptions: The following discharges are exempt from the requirements established by this chapter:

1. Landscape irrigation and lawn watering associated with single-family detached or duplex development,

2. Uncontaminated groundwater or surface water pumped from a foundation drainage or crawl space system in accordance with the regulations of the Colorado Department of Public Health and Environment,

3. Individual residential car washing,

4. Discharges that comply with the Division's Low Risk Policy Discharge Guidance or other applicable Division policies or guidance documents including:

- a. Hot springs
- b. Trail Building
- c. Fire suppression dischargers
- d. Potable water monitoring devices
- e. Potable water
- f. Rural Roadway Culvert Flushing by Public Entities
- g. Snow melting
- h. Surface cosmetic power washing operations to land
- i. Swimming pools
- j. Uncontaminated groundwater to land
- k. Discharges where the Colorado Water Quality Control Division has stated that it will not pursue permit coverage or enforcement,
- 5. Emergency firefighting activities,
- 6. Street cleaning operations conducted under the supervision of or authorized by the city,
- 7. Diverted stream flows,
- 8. Irrigation return flow,
- 9. Springs,
- 10. Flows from riparian habitats and wetlands,
- 11. Air conditioning condensation,
- 12. Dye testing in accordance with manufacturers recommendations,
- 13. Stormwater runoff with incidental pollutants,
- 14. Discharges authorized by a Colorado Discharge Permit System permit or National Pollutant Discharge Elimination System permit,
- 15. Agricultural runoff; or
- 16. Any discharge that is authorized by the City Public Works Manager consistent with the MS4 permit.

6.17.050 – Notice of Violation.

A. To the extent possible, considering the nature and extent of the illicit discharge, the City Public Works Manager or designated City of Manitou Springs staff shall provide verbal or written notice to persons or owners violating this Chapter and shall work with such persons and

owners to correct violations prior to the commencement of enforcement proceedings.

B. When a person or owner violating this Chapter does not correct a violation of this Chapter in a reasonable timeframe (not to exceed three (3) calendar days), the City Administrator shall determine the illicit discharge to be an imminent danger to health, safety, property or receiving waters and the City may proceed with abatement of the illicit discharge consistent with section 6.08.060 of this Chapter.

C. Nothing in this Section shall be construed to bar the commencement of criminal or civil enforcement proceedings for violations of this Ordinance without prior notice.

6.17.060 – Enforcement.

A. Whenever the city administrator finds that any person or owner has violated or is violating any provision of this Chapter, or any approval granted under this chapter or the City of Manitou Springs Stormwater Quality Management and Discharge Control Code , the city administrator may serve upon such person a written notice stating the nature of the violation and providing a reasonable time necessary to cure the violation for the satisfactory correction thereof.

B. If the person so notified fails to correct the violation as required by the notice in this section, or if the city administrator determines that an imminent danger to health, safety, property or receiving waters exists, the city administrator may correct the violation or cause the violation to be corrected and charge the costs thereof to the person or owner violating the provisions of this chapter.

C. If any person fails or refuses to pay when due any charge imposed under this section, the city administrator may, in addition to taking other collection remedies, certify due and unpaid charges to the El Paso County Treasurer for collection as provided by Section 6.08.050.

6.17.070 – Civil Enforcement.

The City Administrator may refer violations of this Chapter to the City Attorney's Office for the institution of an injunction, mandamus, abatement, or other appropriate action to prevent, enjoin, abate, or remove a violation.

Section 2. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 3. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 4. This ordinance shall take effect five (5) days after publication following final passage.

Passed on first reading and ordered published this 3rd day of June 2025.

City Clerk, Elena Krebs

A Public Hearing on this ordinance will be held at the June 17, 2025, City Council meeting. The Council Meeting will be held at 6:00 P.M. at City Hall, 606 Manitou Avenue, Manitou Springs, Colorado.

Ordinance Published:

City's Official Website and City Hall

Passed on second reading and adopted by Council this ____ day of June 2025.

Mayor, John Graham

Attest:

City Clerk, Elena Krebs



Memorandum

Title: First Reading of Ordinance No. 1325, An Ordinance Amending Chapters 18.03 and 18.06 of the Manitou Springs Municipal Code Concerning Storm Water Management and Grading and Erosion Control Permit Provisions

From: Frederick Rollenhagen, Planning Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 10 Minutes

June 3, 2025

Purpose:

To remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE), amendments to Titles 6, 13, 14, and 18 of the Municipal Code are being proposed to better address illegal discharges into the city's storm sewer system and waters of the State. Amendments to Title 18 are specifically to connect the requirements of Title 14 to the Grading and Erosion Control Permit requirements found in Title 18.

Background:

In March 2021, the City's stormwater consultant, Chavez Consulting Inc., LLC, conducted a baseline MS4 permit compliance evaluation for the City. The baseline compliance evaluation was an initial evaluation of existing MS4 regulatory mechanisms and program documentation compared to the compliance schedule found in Table 2 of the MS4 permit.

The evaluation had two goals:

1. Identify any issues that may exist relative to the compliance schedule found in Table 2 of the MS4 permit
2. Develop a report with recommendations on how to bring the City into compliance with its MS4 permit, if necessary.

A thorough review of the City's stormwater regulatory mechanisms and the Program Description Document (PDD) was conducted during the baseline compliance evaluation. Although Title 14 appeared to have been updated in 2019, the initial evaluation found several inconsistencies with MS4 permit requirements for construction oversight exemptions, inspection frequencies and inspection scopes. The PDD was determined to be significantly inadequate. These proposed code amendments are the City's follow-up on the recommendations included in the baseline compliance evaluation report. Initially, the Municipal Code will be updated to accurately reflect conditions



included in the MS4 Permit. A new Program Description Document along with several procedural documents will be developed after the Municipal Code is amended.

Pros and Cons:

Pros: Proposed revisions are necessary in order for the City to remain compliant with the City's Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE).

Cons:

If revisions are not made, the City will be out of compliance with its MS4 Permit.

Fiscal Impact:

The City received a \$20,000 matching grant from the Colorado Department of Local Affairs for this project. The \$20,000 match from the City has been allocated to the Planning Department's budget and is being drawn down during the 2024 and 2025 fiscal years as work is being accomplished.

Workload Impact:

This is a major project that was identified as a Planning Department goal for 2025 to complete. Staff secured the DOLA grant, advertised and hired the consultant, and has been working with the consultant in scheduling and holding staff meetings with other City Staff members, reviewing drafts, making and collecting comments on the draft, and recommending revisions. Additionally, staff scheduled and presented these draft revisions to the City Planning Commission for consideration and recommendation on April 9, 2025.

Recommended Action:

Move to approve on First Reading, Ordinance No. 1325, an ordinance amending chapters 18.03 and 18.06 of the Manitou Springs Municipal Code concerning storm water management and grading and erosion control permit provisions, and set a public hearing for June 17, 2025, at 6:00 p.m., or as soon thereafter as the matter may be heard.

ORDINANCE

**AN ORDINANCE AMENDING CHAPTERS 18.03 AND 18.06 OF THE
MANITOU SPRINGS MUNICIPAL CODE CONCERNING STORM
WATER MANAGEMENT AND GRADING AND EROSION CONTROL
PERMIT PROVISIONS**

WHEREAS, the City desires to amend Chapter 18.03 and 18.06 of the Code to remove and amend language and requirements to comply with the new Stormwater Quality Management and Discharge Code.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY
OF MANITOU SPRINGS, COLORADO, THAT:**

Section 1. A new Subsection B is hereby added to Section 18.03.11 of the Manitou Springs Municipal Code to read as follows:

With the submission of a Final Drainage Report for a project meeting the definition of applicable development site, as defined in Title 14, the engineer of record shall include for each detention and infiltration facility proposed for the project:

1. A completed Post Construction Stormwater Detention Facility Documentation Form.
2. An Operations and Maintenance Manual specific to every permanent control measure constructed at the site.
3. A Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement.
4. A completed Stormwater Detention and Infiltration Facility Design Data Sheet for each facility included in the project.

Items 1-3 may be obtained from the Manitou Springs Planning Department.

The Stormwater Detention and Infiltration Facility Design Data Sheet can be downloaded from the statewide notification and compliance portal at:
<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>

City Planning will review the submitted documentation forms for completeness and accuracy. Upon verification of complete and accurate documentation and data sheets, the owner is responsible for uploading each facility into the statewide reporting portal.

Section 2. Section 18.06.4.23(B) is hereby amended to add (7) and read as follows:

(7) Land disturbing activity meeting the definition of Applicable Construction Activity as defined in Title 14.

Section 3. Section 18.06.4.23(C) is hereby amended to add (1) and (2) and read as follows:

1. Grading and Erosion Control Plan. A Grading and Erosion Control (GEC) Plan

shall be submitted for all applicable construction activity and applicable development sites. The intent of the GEC Plan is to provide for overall construction, subdivision or development grading design as part of the engineering required for review and approval by the City. This plan is done at the time construction drawings are prepared by the Professional Engineer working for the project owner. Cuts and fills are analyzed for balance, slopes and contours are proposed, and permanent stormwater control measures are designed as an integral part of the engineering design.

2. Applicable construction activity and applicable development sites, as defined in Title 14 shall comply with the additional requirements of Title 14.

Section 4. Section 18.06.4.23(D)(2), (3), and (4) are hereby amended to read as follows:

2. An excavation by the City for the purpose of maintenance of City utilities, buildings, streets, drainage, or easements;
3. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine maintenance;
4. Sites that meet the criteria for an exemption as defined Title 14.

Section 5. Section 18.06.4.23(E) is hereby repealed and reenacted to read as follows:

Procedure. Grading and Erosion Control Permits shall follow the General Application Procedures as outlined in Section 18.06.2 and further described in Section 18.06.3. of this Chapter. The Planning Director may approve, disapprove, or conditionally approve the application. Major or *Minor Development* Plans, Variances, or any other Planning Permission associated with the proposed grading activity shall be approved by the City prior to issuance of a grading permit.

1. In addition to the General Application procedures outlined in this Chapter, applicable construction activities shall follow the application procedures outlined in Chapter 14.02 of Title 14.
2. Compliance. Inspections for compliance of the work and administration of the permit shall be done by the Planning Department. Periodic inspections of applicable construction activity shall be performed by the Manitou Springs Stormwater Department consistent with Title 14.
3. Denial of Permit. When, upon determination by the Planning Director, the work proposed by the applicant is contrary to the purposes of this Chapter, the Grading and Erosion Control Permit shall be denied. Factors to be considered in the denial shall include, but not be limited to: Possible saturation of fill and unsupported cut by water, both natural and domestic runoff surface waters that cause erosion, and silting of drainageways; subsurface conditions such as the rock strata and faults, nature and type of soil or rock that when disturbed by the proposed grading may create earth movement and produce slopes that cannot be landscaped and excessive and unnecessary scaring of the natural landscape through grading or removal of vegetation.
4. Conditions of Issuance. A permit may be issued with conditions including but not limited to the following:
 - a. Limitation of the hours of operation or the period of year in which work may be performed;

- b. Restrictions as to the size and type of equipment;
- c. Designations of routes upon which materials may be transported;
- d. The place and manner of disposal of excavated materials;
- e. Requirements as to the laying of dust and tracking of dirt, the prevention of noises and other results offensive or injurious to the neighborhood, the general public, or any portion thereof;
- f. Designation of maximum or minimum slopes to be used if they vary from those prescribed in this LUDC;
- g. Regulations as to the use of public streets and places in the course of the work;
- h. Regulations as to the degree of compaction of fill material;
- i. Requirements as to paving private driveways and roads constructed under the permit;
- j. Requirements for safe and adequate drainage of the site;
- k. A requirement that crews and equipment be provided at the site during storms to prevent incomplete work from endangering life or property;
- l. Requirements for fencing of excavation or fills, which would be hazardous without such fencing.

Section 6. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 7. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 8. This ordinance shall take effect five (5) days after publication following final passage.

Passed on first reading and ordered published this 3rd day of June 2025.

City Clerk, Elena Krebs

A Public Hearing on this ordinance will be held at the June 17, 2025, City Council meeting. The Council Meeting will be held at 6:00 P.M. at City Hall, 606 Manitou Avenue, Manitou Springs, Colorado.

Ordinance Published:

City's Official Website and City Hall

Passed on second reading and adopted by Council this ____ day of June 2025.

Mayor, John Graham

Attest:

City Clerk, Elena Krebs

18.03.11 Stormwater Management

18.03.11.1 Purpose and Applicability.

- A. All drainage plans and reports shall meet the design and submittal requirements of the City of Colorado Springs Drainage Criteria Manual.

- B. With the submission of a Final Drainage Report for a project meeting the definition of applicable development site, as defined in Title 14, the engineer of record shall include for each detention and infiltration facility proposed for the project:
 - 1. A completed Post Construction Stormwater Detention Facility Documentation Form.
 - 2. An Operations and Maintenance Manual specific to every permanent control measure constructed at the site.
 - 3. A Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement.
 - 4. A completed Stormwater Detention and Infiltration Facility Design Data Sheet for each facility included in the project.

Items 1-3 may be obtained from the Manitou Springs Planning Department.

The Stormwater Detention and Infiltration Facility Design Data Sheet can be downloaded from the statewide notification and compliance portal at:

<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>. City Planning will review the submitted documentation forms for completeness and accuracy. Upon verification of complete and accurate documentation and data sheets, the owner is responsible for uploading each facility into the statewide reporting portal.

(Ord. No. 1123, § 1(Exh. A), 10-3-2023)

18.06.4.23 Grading and Erosion Control Permit.

- A. Purpose. This LUDC prescribes standards and criteria for judging how a *development* will affect the terrain, drainage, or vegetation, and/or to ensure the proposed grading matches the preliminary grading plan as approved as part of a *Major Development Plan*. This permit is required before any construction or earthwork meeting the criteria below takes place, or minerals and material are removed. This permit also shall ~~prescribe~~ require erosion control measures to protect public and private property. The purpose of this section is to protect the health, safety, and welfare of the citizens of Manitou Springs by:
1. Ensuring that the *development* of each site minimizes adverse impacts to adjacent properties by adequately addressing drainage, erosion, earth movement, and *geologic hazards*;
 2. Ensuring that the construction of a *development* will be as unobtrusive to the natural terrain as possible;
 3. Ensuring to the *maximum extent practicable* the retention of natural vegetation to aid in protection against erosion, earth movement, and other similar hazards and to aid in preservation of natural scenic qualities of the City;
 4. Reducing air pollution caused by dust blown from areas under *development*;
 5. Preventing the premature cutting of roads and building sites.
- B. Applicability. No person shall commence or proceed with any modification of the natural terrain without seeking and obtaining a Grading and Erosion Control Permit from the Planning Director, if such modification will result in any of the following:
1. An excavation, fill, or combination in excess of one hundred (100) cubic yards;
 2. An excavation which will be three (3) or more feet below the ground surface for an area over five hundred (500) square feet or more;
 3. A fill that will be three (3) or more feet above the ground surface, for an area over five hundred (500) square feet or more;
 4. An excavation or fill by a *developer* or contractor not working on behalf of the City or a *Public Utility* that falls within a public drainage *easement*, a *public right-of-way*, or any other *public utility easement*. This includes the preparation of roads or sidewalk;
 5. Vegetation removal over an area five hundred (500) square feet or more; or
 6. Mining, quarrying, or gravel operations.
 7. Land disturbing activity meeting the definition of Applicable Construction Activity as defined in Title 14.
- C. Submittal. Grading permit submittals shall follow the general application procedures in Section 18.06.3 of this Chapter. Applicants shall make a submittal to the Planning Department in accordance with the Grading and Erosion Control Permit Checklist.
1. Grading and Erosion Control Plan. A Grading and Erosion Control (GEC) Plan shall be submitted for all applicable construction activity and applicable development sites. The intent of the GEC Plan is to provide for overall construction, subdivision or development grading design as part of the engineering required for review and approval by the City. This plan is done at the time construction drawings are prepared by the Professional Engineer working for the project owner. Cuts and fills are analyzed for balance, slopes and contours

are proposed, and permanent stormwater control measures are designed as an integral part of the engineering design.

2. Applicable construction activity and applicable development sites, as defined in Title 14 shall comply with the additional requirements of Title 14.

D. Exemptions. No permit shall be required when grading is performed in the following circumstances:

1. *Solid waste* disposal sites operated by the public or under public regulations;
2. An excavation by the City for the purpose of maintenance ~~or installation~~ of City utilities, buildings, streets, drainage or easements;
3. ~~An excavation by a private individual for the purpose of routine maintenance~~ Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine maintenance.;
4. ~~Tilling the ground for agricultural purposes or protection.~~ Sites that meet the criteria for an exemption as defined in Title 14.

E. Procedure. Grading and Erosion Control Permits shall follow the General Application Procedures as outlined in Section 18.06.2 and further described in Section 18.06.3. of this Chapter. The Planning Director may approve, disapprove, or conditionally approve the application. Major or *Minor Development* Plans, Variances, or any other Planning Permission associated with the proposed grading activity shall be approved by the City prior to issuance of a grading permit.

1. In addition to the General Application procedures outlined in this Chapter, applicable construction activities shall follow the application procedures outlined in Chapter 14.02 of Title 14.
2. Compliance. Inspections for compliance of the work and administration of the permit shall be done by the Planning Department. Periodic inspections of ~~the work applicable~~ construction activity shall be ~~done performed~~ by the Manitou Springs Stormwater Department consistent with Title 14.
3. Denial of Permit. When, upon determination by the Planning Director, the work proposed by the applicant is contrary to the purposes of this Chapter, the Grading and Erosion Control Permit shall be denied. Factors to be considered in the denial shall include, but not be limited to: Possible saturation of fill and unsupported cut by water, both natural and domestic runoff surface waters that cause erosion, and silting of drainageways; subsurface conditions such as the rock strata and faults, nature and type of soil or rock that when disturbed by the proposed grading may create earth movement and produce slopes that cannot be landscaped and excessive and unnecessary scaring of the natural landscape through grading or removal of vegetation.
4. Conditions of Issuance. A permit may be issued with conditions including but not limited to the following:
 - a. Limitation of the hours of operation or the period of year in which work may be performed;
 - b. Restrictions as to the size and type of equipment;

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- c. Designations of routes upon which materials may be transported;
 - d. The place and manner of disposal of excavated materials;
 - e. Requirements as to the laying of dust and tracking of dirt, the prevention of noises and other results offensive or injurious to the neighborhood, the general public, or any portion thereof;
 - f. Designation of maximum or minimum slopes to be used if they vary from those prescribed in this LUDC;
 - g. Regulations as to the use of public streets and places in the course of the work;
 - h. Regulations as to the degree of compaction of fill material;
 - i. Requirements as to paving private driveways and roads constructed under the permit;
 - j. Requirements for safe and adequate drainage of the site;
 - k. A requirement that crews and equipment be provided at the site during storms to prevent incomplete work from endangering life or property;
 - l. Requirements for fencing of excavation or fills, which would be hazardous without such fencing.
- F. Failure to Start a *Major Development*. If an application for a Grading and Erosion Control Permit for a *major development* is not made within twelve months after planning permission has been granted by the Planning Director, Planning Commission, or City Council then that permission will lapse. An extension may be granted by the Planning Director of one, twelve-month period for good cause. "Good cause" for purposes of this section shall mean justifiable and reasonable reasons why a Grading and Erosion Control Permit was not submitted by the deadline. Examples of good cause include delays in plan or report preparation, inability to secure financing in a timely manner, unforeseen conditions at the property such as soils or drainage problems, and similar causes not solely the result of the applicant's failure to pursue the *development* with due diligence.
- G. Failure to Start a *Minor Development*. If final inspection approval by the Planning Director of a Grading Permit for a *minor development* is not made within six months after permission has been granted by the Planning Director, Planning Commission or City Council then that permission will lapse. An extension may be granted by the Planning Director of one, six-month period for good cause. "Good cause" for purposes of this section shall mean justifiable and reasonable reasons why a Grading and Erosion Control Permit was not submitted by the deadline. Examples of good cause include delays in plan or report preparation, inability to secure financing in a timely manner, unforeseen conditions at the property such as soils or drainage problems, and similar causes not solely the result of the applicant's failure to pursue the *development* with due diligence.
- H. Expiration. If work within the Grading and Erosion Control Permit's scope does not commence within twelve months of approval, the permit shall expire. An extension may be granted by the Planning Director of one, twelve-month period for good cause. "Good cause" for purposes of this section shall mean justifiable and reasonable reasons why work did not commence within the allotted timeframe. Examples of good cause include delays in available labor or materials, unforeseen conditions at the property such as soils or drainage problems, and similar causes not solely the result of the applicant's failure to pursue the *development* with due diligence.

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- I. Reclamation. If a proposed *development* is *abandoned* after commencing work within the scope of the approved Grading and Erosion Control Permit, the owner of the property for which the permit was granted shall file a reclamation plan for approval by the Planning Director. The reclamation plan shall be designed to return the site to as close to the condition existing prior to grading as deemed reasonable by the Planning Director. If a reclamation plan is not submitted, the property owner may be subject to violations and punishment as outlined in Section 18.06.4.27.
- J. Financial Security Required. The applicant for a Grading and Erosion Control Permit may be required to file a financial security in the form of a surety bond, irrevocable letter of credit, or evidence of cash held in escrow by the City or other such guarantee satisfactory to the City, in an amount deemed sufficient by the City Engineer to cover all costs of reclamation of the site in the event that the *improvements* are not in accordance with the approved Grading and Erosion Control Permit. Said security shall be returned to the applicant within thirty days of final approval of the *improvements* by the Planning Director. In such case that use of the security as described above occurs, any monies in excess of that required for reclamation shall be returned to the applicant.
- K. Erosion Control. All cut and fill surfaces created by grading and subject to erosion except plowing or disking for agricultural or fire break purposes shall be planted with a ground cover that is compatible with the natural ground covers in the City and that will thrive with little or no maintenance once established.
1. Top soils are to be stockpiled during rough grading and used on cut and fill slopes.
 2. On slopes likely to be extensively disturbed by later construction, an interim ground cover may be planted to be supplemented by the permanent ground cover and/or shrubs and trees when the site is finally developed and landscaped.
 3. The City may require *retaining walls* on steep slopes unless the stability of a cut on such slope is certified by a licensed Engineer.
 4. All areas along public roads disturbed by cuts and fills shall be re-landscaped with groundcover or plant material to match that existing prior to disturbance.
- L. Air Pollution Control. Efforts shall be made to abate the dust caused by the *development* of sites. Such methods as watering, erosion controls, chemical treatment, etc., shall be used in order to minimize dust.
- M. Responsibility. Failure of the City officials to observe and recognize hazardous or unsightly conditions, or to deny or recommend denial of the Grading and Erosion Control Permit, shall not relieve the permittee of responsibility for the condition or damages resulting therefrom, and shall not result in the City of Manitou Springs, its officer, or agents, being responsible for the conditions or damages resulting therefrom.



Memorandum

Title: Second Reading and Public Hearing of Ordinance No. 0825, an Ordinance Reducing the City's Special Tax on the Sale of Retail Marijuana and Retail Marijuana Products

From: Mayor John Graham

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 10 Minutes

June 3, 2025

Purpose:

To hold a public hearing and consider adopting the ordinance reducing the special marijuana tax rate for recreational marijuana sales.

Background:

This ordinance was introduced at the May 20, 2025, Council meeting and set for a public hearing tonight. There have been no changes to the ordinance since the first reading.

The City of Manitou Springs currently collects a special marijuana tax of 10 percent on recreational marijuana sales. Earlier this year, Colorado Springs legalized recreational marijuana sales and established a five percent special marijuana tax rate. The difference in tax rates puts the Manitou Springs recreational marijuana sellers at a competitive disadvantage. The City of Manitou Springs wishes to reconsider the tax rate to be supportive of the local businesses.

Pros and Cons:

Pros: Making the tax rate competitive will enable local retailers to better maintain market share. While local sales volume is expected to decline owing to increased competition, the city hopes to preserve some retail marijuana traffic and tax collections.

Cons: Reducing the tax rate will necessarily mean that the city collects less tax on a given sale. However, this should help local businesses to maintain market share.

Fiscal Impact:

Significant but very difficult to forecast. The volume of sales is likely to diminish, and the reduced tax rate will further reduce revenue for the city. However, the alternative of leaving the rate where it currently is will impact sales volumes even more negatively.



Workload Impact:

Minimal.

Recommended Action:

Move to adopt on second reading, Ordinance No. 0825, an ordinance reducing the city's special tax on the sale of retail marijuana and retail marijuana products.

ORDINANCE

AN ORDINANCE REDUCING THE CITY'S SPECIAL TAX ON THE SALE OF RETAIL MARIJUANA AND RETAIL MARIJUANA PRODUCTS

WHEREAS, on November 5, 2013, the voters of the City of Manitou Springs approved the imposition of an additional 5% sales tax on the sale of retail marijuana and retail marijuana products within the City, and gave the City Council the authority to increase or decrease the tax so long as the tax does not exceed 10%;

WHEREAS, effective January 10, 2022, the City Council increased the sales tax to 10% by Ordinance No. 1821; and

WHEREAS, the City Council has reviewed the fiscal impacts of the current tax rate on local businesses, and has determined that a reduction in the special tax rate is in the best interest of the City to support local business competitiveness; and

WHEREAS, the City desires to reduce the retail marijuana sales tax to 5% effective June 9, 2025.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

Section 1: Section 3.12.110 (B) of the Manitou Springs Municipal Code is hereby amended to read as follows:

B. Effective June 9, 2025 the city's tax on all retail sales of marijuana and marijuana products is five percent of the gross receipts of such sales and shall be assessed in addition to the sales tax collected pursuant to subsection (A) hereof.

Section 2: If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 3: The repeal or modification of any provision of Manitou Springs Municipal Code by this ordinance shall not release, extinguish, alter, modify or change in whole or in part any penalty, forfeiture or liability, either civil or criminal, which shall have been incurred under such provision. Each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings and prosecutions for enforcement of the penalty, forfeiture or liability, as well as for the purpose of sustaining any judgment, decree or order which can or may be rendered, entered or made in such actions, suits, proceedings or prosecutions.

Section 4: This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 5: This ordinance shall take effect five (5) days after final approval on second reading and publication.

Passed on first reading and ordered published this 20th day of May 2025.

Elena Krebs, City Clerk

A Public Hearing on this ordinance will be held on June 3, 2025 City Council meeting. The Council Meeting will be held at 6:00 P.M. at City Hall, 606 Manitou Avenue, Manitou Springs, Colorado.

Ordinance Published: May 21, 2025 (in full)
City's Official Website and City Hall

Passed on second reading and adopted by Council this 3rd day of June 2025.

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John Graham, Mayor

Attest:

Elena Krebs, City Clerk

Ordinance Published: June 4, 2025 (in full)
City's Official Website and City Hall