

**STORMWATER MANAGEMENT REPORT:
MARIAH TRAIL FILING NO. 1
MAJOR SUBDIVISION**

A PORTION OF THE NORTHWEST QUARTER OF
SECTION 17, TOWNSHIP 14 SOUTH, RANGE 66 WEST OF THE 6TH
P.M.
COUNTY OF EL PASO, STATE OF COLORADO

LOTS 1-6 MARIAH TRAIL FILING NO. 1
EL PASO COUNTY, COLORADO

PCD FILE NO.: SF2315

APPLICANT AND OWNER:

MR. THOMAS KIRK, JR.
19205 MARIAH TRAIL
COLORADO SPRINGS, CO

QUALIFIED STORMWATER MANAGER AND CONTRACTOR:

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LATEST REVISION DATE: APRIL 21, 2024

ENGINEER OF RECORD:

PREPARED BY

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ENGINEERING LOCAL XPERTS



PROJECT NO. 100678

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Engineer's Statement

The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans.

SIGNATURE (Affix Seal): _____ Date _____
Carlos David Serrano, Colorado P.E. No.: 52048
For and on Behalf of Engineering Local Xperts

SEAL:

REVIEW ENGINEER'S STATEMENT:

The Stormwater Management Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request.

Review Engineer Date

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1) INTRODUCTION

The purpose of this Stormwater Management report is to identify the required erosion and sediment control measures for the construction sequencing of the proposed major subdivision development. This report describes the existing and developed conditions of the Site, the initial, interim, and final construction phase and the timeframe for construction, as well as any potential pollution sources and mitigation including material handling and spill prevention. The report describes the surrounding and downstream locations such as any nearby waterways and the ultimate receiving waters from the Site. The Appendix contains the required information for a Stormwater Management Plan and Report including a Vicinity Map, Soils Information, Floodplain Information, the Grading and Erosion Control Plan, a Colorado Department of Public Health and Environment Brochure for responsible construction activities, a Stormwater Management Log, and Erosion and Sediment Control Details for the required control measures of the Site.

The purpose of the project is to subdivide an existing 35-acre RR-5 zoned parcel into six single-family residential lots as a Major Subdivision. A gravel roadway extension of the existing Mariah Trail right-of-way is to be constructed for access to the new lots.

2) EXISTING CONDITIONS

LOCATION

The property of interest, henceforth referred to as the Site, addressed as 19205 Mariah Trail, is an unplatted 35-acre RR-5 zoned parcel within El Paso County with Schedule No. 5100000511. The Site within the northwest quarter of Section 7, Township 11 South, Range 65 West of the sixth P.M.. The Site is south of the County's 60-foot right-of-way of Mariah Trail, a rural local gravel roadway. The property is accessed via a private access drive within a 16-foot width common access easement (Reception No. 213070061). The adjacent properties or subdivisions are as follows:

North: El Creek Ranches Filing No. 1 (Lots 24-26)

East: 19275 Mariah Trail, Schedule No. 5100000512, Zoned RR-5, Unplatted 40.23 acre property

South: 18885 Brown Road, Schedule No. 5100000447, Zoned RR-5, Unplatted 61.55 acre property

West: Part of Section 12-11-66, Schedule No. 6100000224, Zoned RR-5, Unplatted 80 acre property

The Site is currently zoned RR-5 (Rural Residential), allowing 5-acre minimum lots with 25-foot front, rear, and side setbacks for principal structures, and a 200-foot minimum lot frontage width. Flag lots are to have a minimum 30' frontage to public roadways and there is no minimum for flag lot frontages to private roadways, however, an appropriate width has been designed to allow private infrastructure and driveways to remain on private properties.

EXISTING SOILS

The soils indicative to the site are classified as Brussett loam and Peyton-Print complex by the USDA Soil Conservation Service and are listed as NRCS (National Resources Conservation Service) Hydrologic Soil Group B. A USDA Soil Map is provided in Appendix C.

There is little to no evidence of soil erosion and sediment runoff to the eastern downstream natural tertiary channel. The existing swales are assessed within the Final Drainage Report for this project and the existing conditions and developed conditions show no critical or supercritical flows. The data used to determine this include channel section calculations and hydrology calculations to determine peak runoff, velocities, and Froude numbers within swale sections within the property and downstream property.

EXISTING DRAINAGE CONDITIONS

The existing topography of the Site consists of slopes between 2.0 percent and 15 percent generally draining from the west to the east. There are several local topographic high points and grasslined swales across the property. The natural landscape comes to a swale located on the eastern property boundary, central to the Site. The majority of the Site drains to this point where it continues to flow due east. The stormwater runoff to this area is via overland sheet flow and remains generally as sheet flow until the swale reduces in width downstream to channelized flow. The ultimate outfall location is East Cherry Creek approximately 1.5 miles east of the Site.

There are no major drainageways or existing facilities on the Site.

The Site lies within the East Cherry Creek Drainage Basin according to the El Paso County Drainage Basins map. There are no known non-stormwater discharges that contribute to the storm water systems on site and downstream, both private and public.

The project site does not lie within a designated floodplain according to information published in the Federal Emergency Management Agency Floodplain Map No. 08041C0305G, dated December 7, 2018. The FEMA FIRM panel is provided in Appendix B.

The existing percent imperviousness of the Site is less than 0.1% as evidence by aerial photography and site visits. The only non-vegetation land is a dirt path within a common access easement at the north of the Site. The existing vegetative cover of the Site is approximately 99.9% with sparse native grasses and weeds, also as evidence by aerial photography and site visits.

3) PROPOSED DEVELOPMENT AND CONSTRUCTION ACTIVITIES

The proposed project scope is for a six estate lot single-family rural residential with a public -of-way extension for the roadway of Mariah Trail as a 60' radius cul-de-sac that can be used as a future knuckle should a future extension of Mariah Trail be installed due east within this property to the adjacent property. The future 60' public right-of-way dedication is included in the Final Plat. A Final Plat and Major Development Plan show Lots 1 through 6 with minimum areas of 5

acres to meet RR-5 rural residential zoning standards. A 60' radius gravel surface roadway is proposed as an extension of Mariah Trail with a cul-de-sac at the termination point of the proposed right-of-way for an emergency vehicle turnaround at the north property line of the site. There is no County typical section for a rural local cul-de-sac and as such, a section that closely resembles an urban local cul-de-sac and a rural local knuckle is designed so that a future extension of Mariah Trail's 60' right-of-way due east may be transitioned at this location.

The small subdivision is to remain zoned as RR-5, allowing for single-family residences and accessory structures within the El Paso County zoning code's allowed land uses. Covenants for the Mariah Trail Filing No. 1 subdivision shall meet El Paso County land use and development standards at a minimum with the following minimum criteria per the County:

- Minimum 200' width lot frontage
- Minimum 30' lot frontage at public roadways
- No minimum lot frontage at private roadways
- 25' front, side, and rear principal building setbacks
- 5% Imperviousness (per HOA covenants)

Proposed construction activity for the major subdivision is for the Mariah Trail right-of-way extension of the gravel cul-de-sac. Future developed lots are to connect to a future dirt driveway that is platted with a common access easement to allow shared access for each lot owner. Respective lots may have future dirt driveways stem from the common driveway. No driveway connections or culverts are proposed at this time.

The total limits of disturbance and construction is to establish the roadway and include areas for BMP's such as stabilized staging area, stockpiling, and the vehicle tracking control is approximately 0.70 acres or 2.0% of the total Site area. The interim developed condition is the initial roadway buildout of a gravel section with roadside ditches. Further interim conditions are to include driveways and culvert pipes from the roadway and lot development of single-family residences. The ultimate developed condition consists of a full build out of Lots 1 through 6 with single-family residences, driveways, hardscape, accessory structures, etc. to an assumed percent imperviousness of 5% per for the six lots per the HOA Covenants The total imperviousness of the Site is 6.5% for the ultimate developed condition which includes full development of all lots and the roadway.

The construction timeline is anticipated to commence following the Subdivision Plat, Entitlements, and Construction Drawings processes with the County anticipated to be September of 2024. Construction of the roadway is anticipated to take one month with final stabilization occurring in November of 2023. Erosion and sediment control measures for the Site are to be established prior to any disturbance or construction activity as required by the County and per the GEC Plan Set and Stormwater Management Report.

The initial phase of construction consists of the installation of construction control measures including silt fence at downstream perimeter of the property and check dams within the existing natural drainage swale that conveys stormwater to the east property boundary. The construction

control measures are for the initial construction activities of earthwork to cut in the 32' width gravel roadway and ditch sections. Interim and final phases of construction require additional check dams to be installed within the established roadside ditches on each side of the gravel roadway extension. This phase of construction consists of installation of the gravel section for the roadway and shoulders and permanent seeding of the roadside ditches as well as any disturbed areas with existing natural vegetation/native grasses. The roadside ditch slopes exceeding 4:1 slope require erosion control blankets to establish seeding. Permanent stabilization is anticipated to consist of the permanent seeding of any disturbed areas in which earthwork occurred to daylight topography as well as stabilization and seeding of the roadside ditches. A culvert pipe is proposed for drainage conveyance under the roadway and inlet and outlet protection via sediment control logs at both sides of the culvert pipe is proposed.

a) PROPOSED DRAINAGE CONDITIONS

The final drainage pattern of the ultimate buildout of the small subdivision generally follows the existing conditions by sheet flowing west to east and flowing to the concentrated swale within the central east area of the Site. The difference between existing patterns and developed is that a gravel roadway will capture upstream (west) runoff in its swale and convey it to a culvert pipe at the low point of the roadway which will flow due east to a level spreader so that the stormwater will continue due east via overland sheet flow.

Increases in stormwater runoff due to impervious areas are treated for water quality via grass buffers as is expected in rural settings with large areas of undeveloped land. The gravel roadway extension experiences 100% water quality runoff reduction via grass buffers as shown in the Appendix calculations (UD-BMP).

There are no stream crossings located within the construction site boundary. The lots are not within a streamside boundary and there are no preservation easements or existing no-build areas on or within the vicinity of construction/disturbance. There are no anticipated negative impacts to surrounding or downstream developments or infrastructure as a result of development of this small subdivision.

The downstream outfall location of the site is along the east property boundary where a natural grasslined swale is located per existing topography. The major storm event does not have excessive stormwater velocities that would scour the natural swale and therefore is deemed stabilized.

b) DOWNSTREAM STORM INFRASTRUCTURE EVALUATION

There are no known drainage reports on file with El Paso County for this property or any nearby subdivisions that account for this property as an offsite basin. However, due to the developed conditions of the Site remaining within the typical residential land use, it is anticipated that there will be no negative impacts to surrounding and downstream developments and infrastructure. An assessment of the existing natural drainage way on the east side of the Site is included within this report to demonstrate that the outfall of the major subdivision is stable and is an appropriate

outfall that does not require detention or structural control measures to attenuate the stormwater runoff or provide additional energy dissipation.

4) STRUCTURAL EROSION AND SEDIMENT CONTROLS

The project will consist of clearing and grubbing with surface roughening of the area of the proposed roadway within the disturbance/construction limits and implementation of perimeter controls at the initial stage. The proposed perimeter control to be used is silt fence. Traffic control consist of signage at the existing Mariah Trail right-of-way for safe ingress and egress of construction vehicles and equipment.

Roadway grading and construction is for a new gravel roadway as an extension of Mariah Trail. Final stabilization is to take place as soon as possible after pavement and earthwork is completed for the roadway including installation of the culvert pipe. Check dams, erosion control blanket, and permanent seeding construction control measures are to be used during the interim and final phases of construction to stabilize the roadside ditches.

Any waste disposal is to be done off-site at the designation of the contractor at a location approved by the County. Waste disposal, spill prevention, and response procedures are to be according to CDPHE and El Paso County standards. Site specific plans and procedures are addressed per this report. A CDPHE brochure is included as an appendix item in this report.

Inlet protection needed for this project consists of sediment control logs at the inlet and outlet point of the culvert pipe. Inlet protection reduces sediment deposition in storm drains and culverts and reduces sediment pollution in stormwater by filtering out some of the sediment carried by runoff flowing through the inlet protection. The details for the installation and maintenance of the inlet protection are included in the Appendix. Inlet protection should be installed wherever the contractor deems them necessary or helpful in the prevention of sediment runoff during construction.

Prior to construction activity, vehicle tracking control will be installed at the designated access point. Vehicle tracking control helps reduce the deposition of sediment, dirt, mud, and debris by vehicles exiting the site onto the adjacent streets. The location of the site entrance called out for a gravel vehicle tracking control with wash rack is shown on the SWMP BMP site plan along with installation and maintenance of the controls within the details sheets.

Before any grading or other significant disturbance activities, silt fence is to be installed along any edge of an area to be disturbed where runoff would otherwise go untreated. Silt fence will be installed along those portions of the site perimeter where potentially sediment-laden runoff may flow into adjacent properties or into nearby private storm sewer grates. Silt fence is also to be installed as a perimeter around the stockpile area, especially on downstream sides. Silt fences help reduce pollution of stormwater by filtering out some of the sediment carried by runoff flowing through the fences and by facilitating deposition of sediment by slowing the runoff. These Construction control measures also assist in reducing erosion by slowing and distributing runoff.

The locations in which to install silt fence are on the SWMP BMP site plan. As with other Construction control measures, silt fences can be installed wherever the contractor deems them to be necessary or helpful and these locations may not be shown on the site plan.

There are no offsite stormwater control measures proposed for use by this project or under the direct control or ownership of the Owner or Operator.

5) NON-STRUCTURAL EROSION AND SEDIMENT CONTROLS

Prior to commencement of construction activities, the construction vehicle traffic areas to and around the project site including all construction roads, parking areas, loading and unloading zones, storage areas, and staging areas, are to be stabilized through proper grading, compaction, and surfacing. Stabilization of large vehicle traffic areas reduces erosion and vehicle tracking thus helping to eliminate potential pollution of stormwater by sediment. Designated construction ingress and egress with tracking control is to be used as shown on the SWMP BMP site plan. Should significant soil still be deposited on the surrounding roadways, street sweeping will be utilized to remove the soil from roadways immediately following deposition. However, since the existing Mariah Trail roadway is compact dirt, no street sweeping is anticipated. Instead, any waste disposal and maintaining cleanliness of the existing site and surrounding area is to be performed on a daily basis.

Mulch is to be applied to all disturbed areas that are not otherwise stabilized immediately if possible or within 14 days of completion of final grading. Additionally, mulch is to be applied to all disturbed areas that are not yet at final grade but will remain dormant or undisturbed for longer than 30 days. Mulch helps prevent erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff.

When seasonally appropriate, seed is to be applied to all disturbed areas that are not otherwise stabilized immediately if possible or within 14 days of completion of final grading. Additionally, seed is to be applied to all undisturbed areas that are not yet at final grade but will remain dormant or undisturbed for longer than one year. When the season is inappropriate for seed application, surface roughening and mulch is to be applied within 14 days and seed is to be applied as soon as the appropriate seasonality commences.

6) POTENTIAL EROSION AND DISCHARGE

The SWMP calls for control measures to be implemented for initial, interim, and final phases of construction to ensure that erosion and sediment runoff is minimized and that there is no negative impact on downstream water quality. There is no anticipated discharge of pollutants from the site as long as the contractor implements control measures appropriately. Similarly, the developed conditions of a commercial store property and parking lot are not anticipated to have erosion issues following permanent stabilization and seeding.

Any contaminated soils are to be properly disposed of by the contractor immediately. Loading and unloading operations are to occur on-site and large vehicular mobilization will require traffic control measures. Any waste disposal is to be done off-site at the designation of the contractor at a location approved by the County. Waste disposal, spill prevention, and response procedures are to be according to the Colorado Department of Public Health and Environment (CDPHE), Hazardous Materials and Waste Management Division. A CDPHE brochure is included in the Appendix for contractor reference. Appropriate spill prevention and response measures will be implemented on the site and provided by the Contractor. Spill prevention and response measures will be documented and given to the Qualified Stormwater Manager. The details and specifications referenced within this section provide general and specific guidelines for spill prevention and response measures relating to the various potential non-sediment pollution sources.

Only chemicals and materials necessary for the described construction activities may be stored on site, and then only in the smallest amounts reasonable and for the shortest time possible. Fueling and major preventative maintenance of vehicles and equipment may occur only on areas specifically stabilized for construction vehicle traffic. Appropriate procedures will be taken to limit the potential of stormwater pollution from spills and leaks. No significant maintenance of vehicles and equipment and no vehicle and equipment washing will be allowed on site.

Batch plants are not anticipated at this site. The contractor is responsible for the cleaning of trash on site and prevention of any loose trash leaving the site at all times during construction. A portable toilet is required on site.

The contractor is responsible for dust control at all times during construction. Sediment runoff is controlled by use of silt fencing on all downstream sides of the disturbance area within the lot and the contractor is to prevent sediment flow off-site at all times. End of day procedures include BMP inspection by the contractor and removal of any sediment.

Portable toilets will be located a minimum of 10 feet from Stormwater inlets and 50 feet from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

The contractor shall not track mud/dirt off-site and project site cleanup including sweeping and waste disposal is to occur at the end of each working day.

No groundwater and/or stormwater dewatering activities are proposed or expected for the proposed construction activities. If groundwater is discovered during construction, all work is to cease and the contractor shall contact the engineer and County to await instructions.

No significant waste generation is expected as a result of the proposed construction activities. Any major waste that is produced is to be disposed of properly and promptly.

Appropriate spill prevention and response measures will be implemented on the site. The details and specifications referenced above in this section provide general and specific guidelines for

spill prevention and response measures relating to the various potential non-sediment pollution sources. There are no batch plants on site to address spill prevention and pollution controls for dedicated batch plants.

7) NON-STORMWATER DISCHARGE

There is no anticipated non-stormwater surface discharge to and from the site. There is no proposed impervious area and all runoff is according to historic drainage patterns via overland flow over pervious native vegetation and soils. There are no springs, irrigation, groundwater discharge or any other discharge covered by CDPHE Low Risk Guidance that is associated with this site.

8) RECEIVING WATERS

The ultimate receiving waters from the Site is the East Cherry Creek as this project falls within the East Cherry Creek Drainage Basin according to the El Paso County Drainage Basin Map. The East Cherry Creek water way is located approximately 2.5 miles east of the Site.

9) PERMANENT STABILIZATION

All drainage measures are to be implemented according to the engineering plan set. Final stabilization will include seeding of drilled seeding and hydro mulch to revegetate the landscape of the lot and improve the site drainage and aesthetics.

The site will be stabilized at final grades as indicated by the engineering plan set with compaction to the standards according to El Paso County Engineering Criteria Manual. All berms and embankments are to be implemented according to the engineering plan set in order to convey storm water according to the historic drainage patterns consistent with the drainage report. Final stabilization will include seeding of hydro seed and hydro mulch to revegetate the landscape of the lot and improve the site drainage.

According to the Stormwater Construction Permit, final stabilization is reached when all soil disturbing activities at the site have been completed, and uniform vegetative cover has been established with a density of at least 70 percent of pre-disturbance levels or equivalent permanent, physical erosion reduction methods have been employed. This vegetative cover is to be established within one year of completion of construction activities on all disturbed areas not otherwise stabilized. Unless otherwise indicated on a landscape plan, revegetation will be achieved through seedbed preparation, including but not necessarily limited to soil roughening, seeding, mulching, and irrigating when specified.

A visual inspection and aerial mapping of the site shows that the entire 35 acre site consists of meadow/pasture with native grasses. There is a dirt trail within an existing 16' width access easement and there is some fenceline within the property.

The outfall point of the site is along the east boundary where the existing topography has a grasslined swale that conveys runoff due east toward East Cherry Creek. There are no permanent structural control measures to be installed for this outfall as it is determined that it is stabilized with the native grasses.

The structural Construction control measures described in the Structural Erosion and Sediment Controls section are to remain in place until final stabilization in order to prevent erosion and pollution of stormwater by sediment after completion of construction activities. Construction control measures that must remain in place until final stabilization shall be removed following final stabilization and the resulting disturbed areas shall be seeded and mulched.

The limits of disturbance/construction of soil will be mitigated with silt fence. Vehicle tracking can be found at the entrance to the construction site on the north and south side of the site. Street maintenance and waste removal is to be done daily. An Erosion Control Plan depicting erosion control measures, soil disturbance and stock pile locations can be found in Appendix A.

10) OWNER INSPECTIONS AND MAINTENANCE OF CONSTRUCTION CONTROL MEASURES

The contractor is to be familiar with all requirements of the erosion and sediment control plans and notes. The contractor shall protect the existing structures and reroute any runoff as necessary during construction activities to prevent erosion and damage. All exposed and unworked soils shall be stabilized by suitable application of best management practices such as vegetative cover, mulching, plastic covering or application of gravel surfaces in areas to be graveled. No exposed and unworked soils shall remain unstabilized. Once construction activity is completed, permanent seeding shall be installed. All temporary and permanent erosion and sediment control facilities shall be inspected, maintained, and repaired by the contractor as needed to assure continued performance of their intended use. All on-site erosion and control measures shall be inspected by the contractor at least once every seven days and within 24 hours of any storm event equal to or greater than 0.25" of rain per 24-hour period or snowmelt event that causes surface erosion. An inspection report file shall be maintained by the contractor and kept on site. The owner is responsible for inspection and maintenance of Construction control measures after final stabilization.

The Stormwater Construction Permit requires that a thorough inspection of the stormwater management system be performed and documented at least every 14 days and after any precipitation or snowmelt event that results in stormwater running across the ground according to CDPHE App. A Section C.6 (a).

The regular inspections of the site are to include observation of the construction site perimeter and all stormwater discharge points including culverts that may be downstream. Construction control measures applied within the site perimeter or around stormwater discharge points include inlet protection, site entrance vehicle tracking control, silt fence, sediment control logs, and temporary sediment basins. Specific inspection and maintenance requirements for each of these Construction control measures are included in the Appendix.

The regular inspections of the site will also include observation of all disturbed areas and all stabilized and revegetated areas. Inspection of these areas should be given special attention to identify any potential erosion issues. Specifications for surface stabilization and revegetation are included in the Appendix and provide specific inspection and maintenance requirements.

The regular inspections of the site will also include observation of material storage areas including waste collection areas and topsoil stockpiles. Inspection of these areas require special attention for potential leaks and spills. The topsoil stockpile is to be inspected for any potential runoff.

All structural Construction control measures on the site are to be thoroughly examined during each inspection to determine if they still meet the design and operational criteria in the SWMP and that they continue to adequately control pollutants on the site as directed in the CDPHE App. A, Section C.6 (b). Following each inspection, repairs will be performed on Construction control measures that are found to no longer function as needed and designed, and preventative maintenance will be exercised on Construction control measures as needed to ensure continued operation. Construction control measures that have failed or have the potential to fail without maintenance or modifications will be addressed immediately to prevent the discharge of pollutants. When a BMP is found to be ineffective in preventing discharge of pollutants, even though the BMP is in good repair and is functioning as designed, that BMP will be modified or an alternative or additional BMP will be installed promptly. Inspection Logs are to be signed after every inspection.

An Inspection Log is to be maintained on site and include a record of all stormwater management system inspections along with all BMP maintenance and repair activities. All inspection, maintenance, and repair requirements for each BMP, as described in this SWMP and as outlined in the details, will be performed as specified and will be recorded in the Inspection Log. The Inspection Log will also include a description of any incidence of non-compliance, such as uncontrolled releases of pollutants including mud, muddy water or measurable quantities of sediment found off the site along with a description of measures to be taken to prevent future pollutive discharges. Records of any spills, leaks, or overflows of non-sediment potential pollutants, whether or not such a spill, leak, or overflow results in pollution of stormwater, will be included.

Following an inspection that does not reveal any incidents of non-compliance, or following the completion of measures taken to correct any non-compliance issues, A Certification indicating the site is in compliance will be signed and dated.

In addition to regularly maintaining an Inspection Log and Certification, this SWMP will be updated regularly to reflect the actual stormwater management system as implemented on the site.

This project does not rely on control measures owned or operated by another entity other than the owner or its representative. Should this be the case, a documented agreement must be submitted to El Paso County identifying location, installation and design specifications, and

maintenance requirements and responsibility of the control measures. As it is not the case, no documentation is required.

11) SWMP REVISIONS AND RECORD KEEPING PROCEDURES

The contractor and/or qualified stormwater manager (QSM) (the General Contractor) shall keep a log of all BMP inspections as well as revisions during all construction phases. The QSM will be sufficiently qualified for the required duties per the ECM Appendix I.5. The records shall be kept at the job trailer or a designated location on site such as a foreman's vehicle, a specified on site lockbox, etc. This designated location is to be communicated to the County and Owner. The SWMP inspection and revisions records are to include the date, description, and the signature of the qualified stormwater manager for each respective inspection or revision. An appendix document of the logs that may be utilized for the project is provided.

The SWMP should be viewed as a living document that is continuously being reviewed and modified as a part of the overall process of evaluating and managing Stormwater quality issues at the site. The QSM shall amend the SWMP when there is a change in design, construction, operation or maintenance of the site which would require the implementation of new or revised Construction control measures or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with the construction activity or when Construction control measures are no longer necessary and are removed.

12) SUMMARY

This Stormwater Management Report effectively speaks to the construction phasing for the project and the required construction control measures to be installed for erosion and sediment control and stormwater management within and from the Site. The report corresponds to the Grading and Erosion Control Plan design sheet within this report and filed with the County for this project. The QSM shall adhere to the design layout of the GEC Plan and instructions/guidance within this report. The QSM is to adhere to County and State standards for stormwater management to ensure compliance with standards and statutes.

a) COMPLIANCE WITH STANDARDS

The criteria used to design the stormwater management and construction control measures layout are within the El Paso County Engineering Criteria Manual, the El Paso County Drainage Criteria Manual, the City of Colorado Springs Drainage Manuals (DCM) Volumes 1 and 2. Typical erosion and sediment control details as provided within the Appendix are from the El Paso County Drainage Criteria Manual, some of which are from the Mile High Flood District Manuals.

13) REFERENCES

El Paso County Engineering Criteria Manual, latest revision October 14, 2020

El Paso County Drainage Criteria Manual, latest revision October 31, 2018

City of Colorado Springs Drainage Manual Volumes I & II (May 2014, Revised January 2021)

Mile High Flood District Drainage Criteria Manual, Volume I (January 2016)

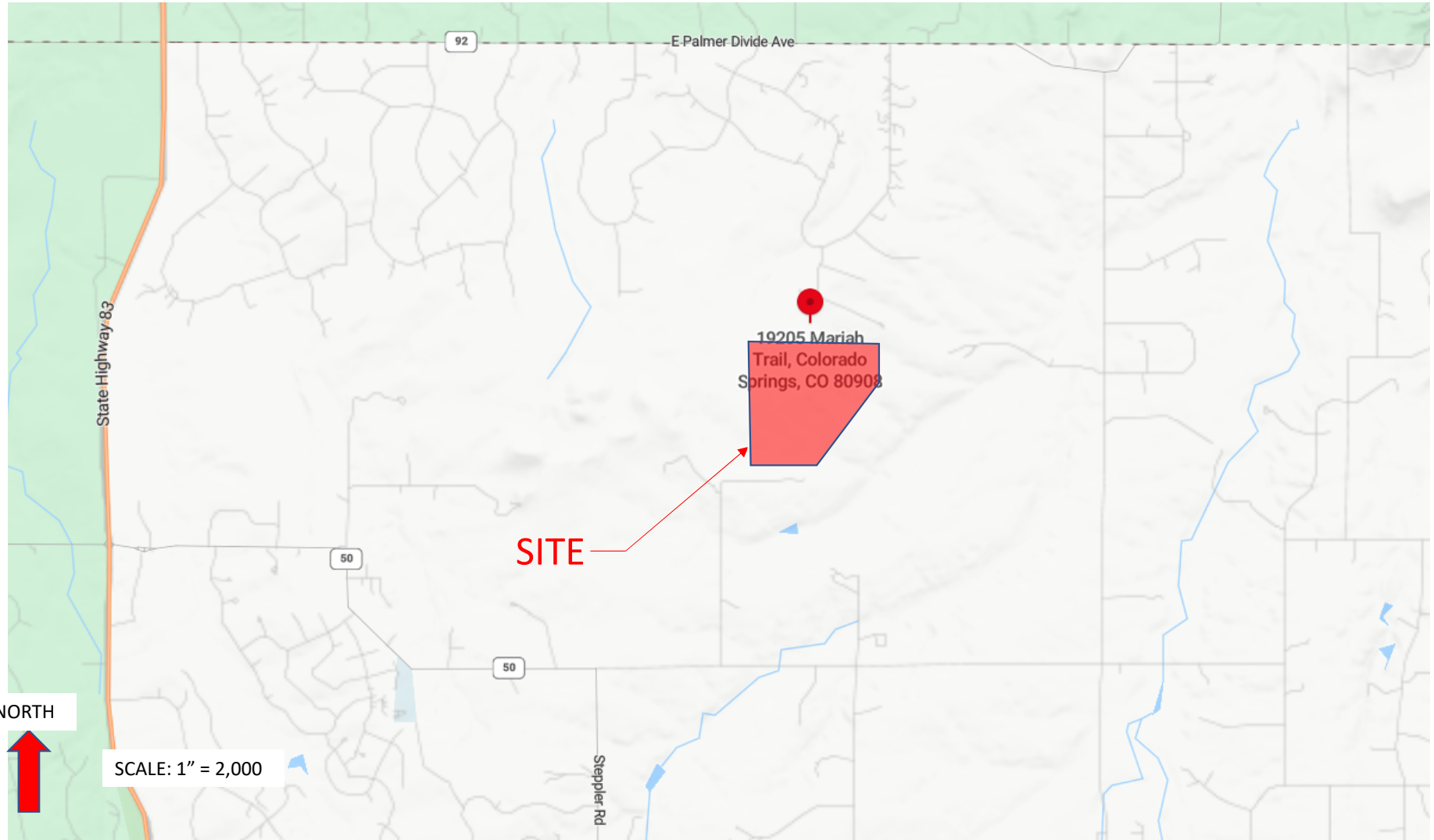
FEMA Flood Map Service Center

United States Department of Agriculture National Resources Conservation Service

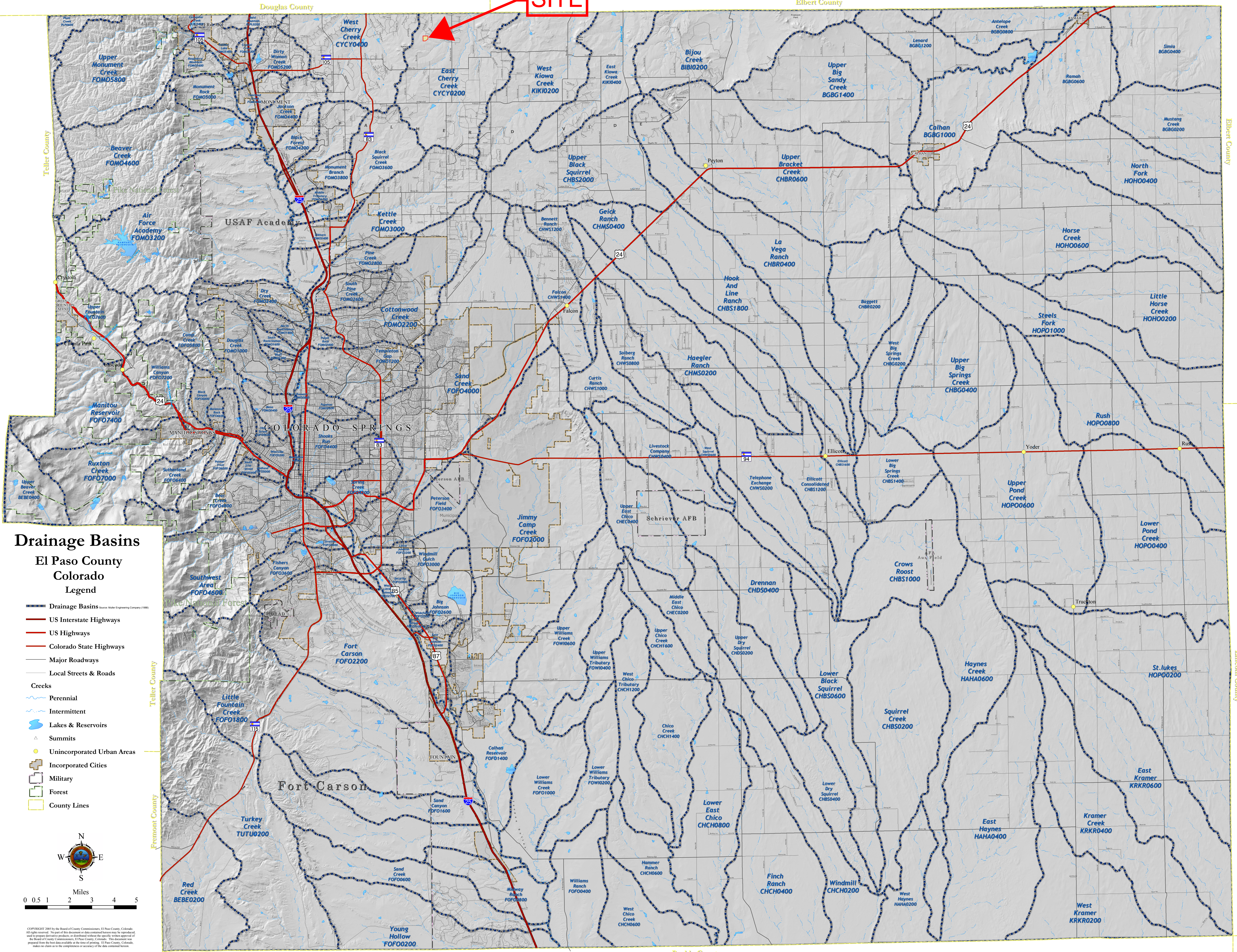
Colorado Department of Public Health & Environment

Appendix A: Vicinity Map

VICINITY MAP
MARIAH TRAIL FILING NO. 1
A PORTION OF THE NORTHWEST QUARTER OF
SECTION 7, TOWNSHIP 11 SOUTH, RANGE 65 WEST,
OF THE SIXTH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



SITE



Drainage Basins

El Paso County Colorado Legend

- Drainage Basins (source: Mule Engineering Company 1986)
- US Interstate Highways
- US Highways
- Colorado State Highways
- Major Roadways
- Local Streets & Roads
- Creeks**
- Perennial
- Intermittent
- Lakes & Reservoirs
- Summits
- Unincorporated Urban Areas
- Incorporated Cities
- Military
- Forest
- County Lines



0 0.5 1 2 3 4 5
Miles

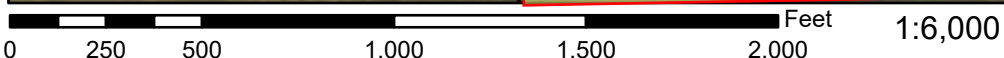
Copyright 2007 by the Board of County Commissioners, El Paso County, Colorado. All rights reserved. No part of this document or data contained herein may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the Board of County Commissioners, El Paso County, Colorado. This document was prepared from the best data available at the time of printing. El Paso County, Colorado, makes no claim as to the completeness or accuracy of the data contained herein.

Appendix B: FEMA Floodplain Map

National Flood Hazard Layer FIRMette



104°43'24"W 39°7'8"N



104°42'46"W 39°6'40"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



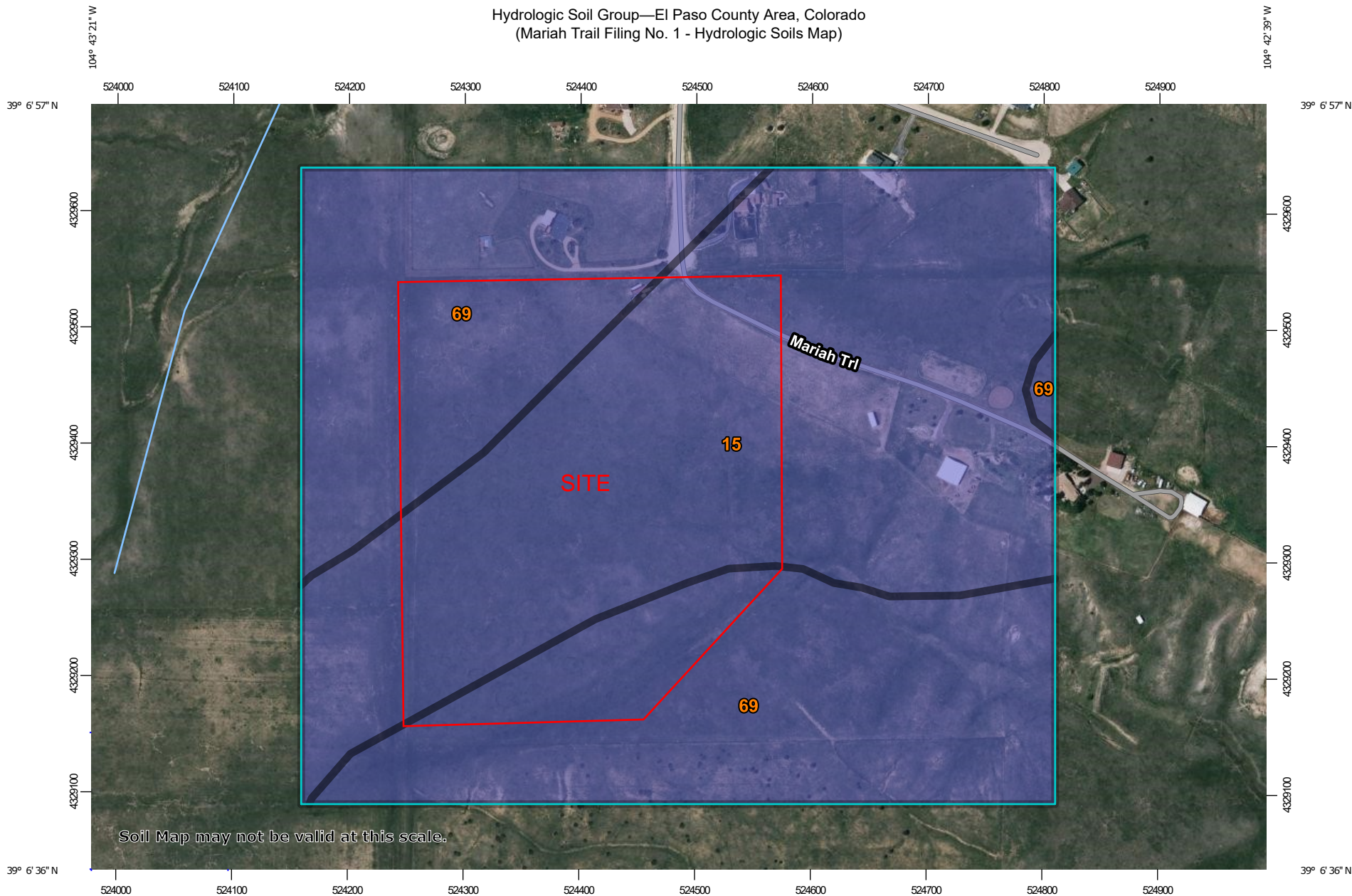
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/5/2023 at 10:49 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix C: NRCS Soils Map

Hydrologic Soil Group—El Paso County Area, Colorado
(Mariah Trail Filing No. 1 - Hydrologic Soils Map)



Map Scale: 1:4,640 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points




 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
 Survey Area Data: Version 20, Sep 2, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
15	Brussett loam, 3 to 5 percent slopes	B	44.8	50.6%
69	Peyton-Pring complex, 8 to 15 percent slopes	B	43.7	49.4%
Totals for Area of Interest			88.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

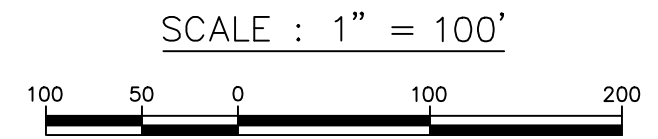
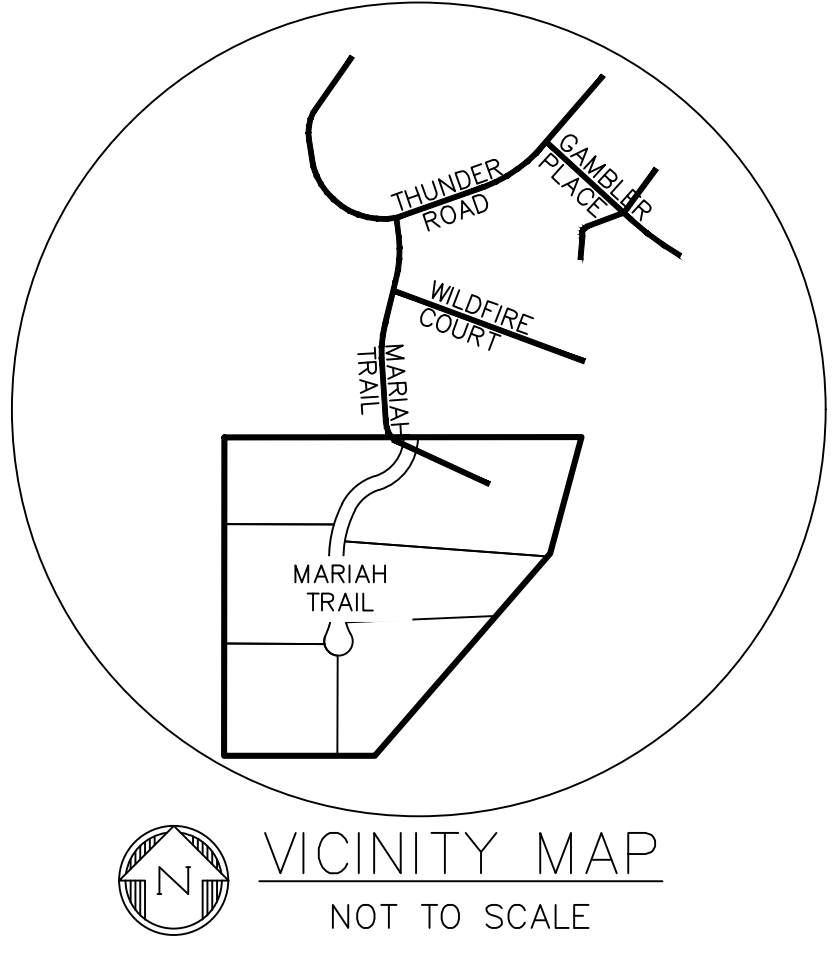
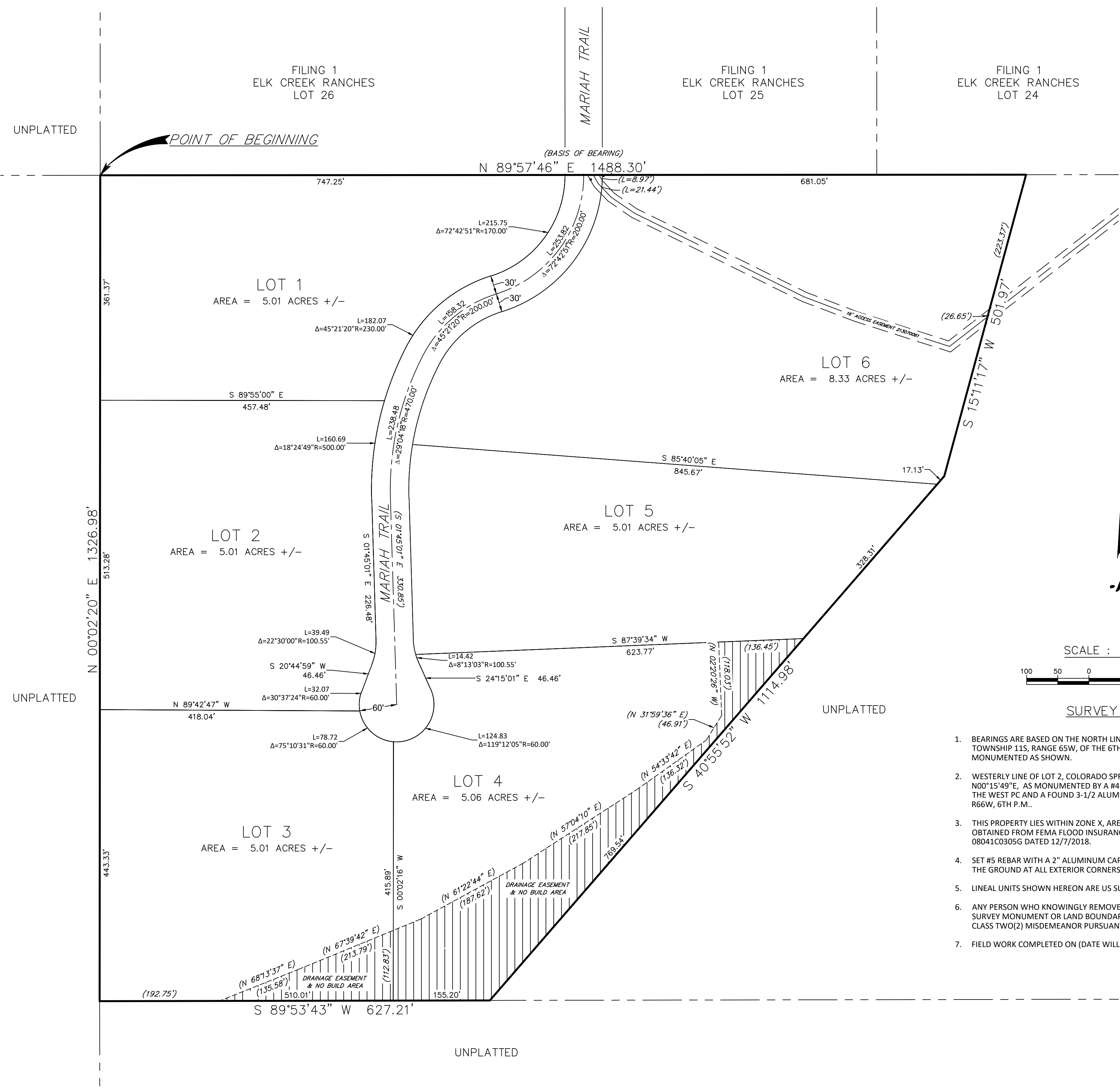
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix D: Replat

MARIAH TRAIL FILING NO. 1

A PORTION OF THE NORTHWEST QUARTER OF SECTION 7,
TOWNSHIP 11 SOUTH, RANGE 65 WEST, OF THE 6th PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO.



SURVEY NOTES

- BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 11S, RANGE 65W, OF THE 6TH P.M., EL PASO COUNTY, COLORADO MONUMENTED AS SHOWN.
- WESTERLY LINE OF LOT 2, COLORADO SPRINGS AIRPORT FILING NO. 1, AS BEARING N00°15'49"E, AS MONUMENTED BY A #4 REBAR W/CAP MARKED "WPM U.S. 11997" AT THE WEST PC AND A FOUND 3-1/2" ALUM CAP AT THE SW CORNER OF SEC 36, T14S, R66W, 6TH P.M..
- THIS PROPERTY LIES WITHIN ZONE X, AREA OF MINIMAL FLOOD HAZARD, INFORMATION OBTAINED FROM FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 08041C0305G DATED 12/7/2018.
- SET #5 REBAR WITH A 2" ALUMINUM CAP STAMPED "POLARIS, PLS 27605", FLUSH WITH THE GROUND AT ALL EXTERIOR CORNERS, UNLESS OTHERWISE NOTED.
- LINEAL UNITS SHOWN HEREON ARE US SURVEY FEET.
- ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO(2) MISDEMEANOR PURSUANT TO C.R.S. 18-4-508.
- FIELD WORK COMPLETED ON (DATE WILL BE ADDED AFTER FINAL APPROVAL).

PARK FEE: _____
SCHOOL FEE: _____
BRIDGE FEE: _____
DRAINAGE FEE: _____

KNOW ALL MEN BY THESE PRESENTS:

THAT THOMAS D KIRK JR, BEING THE OWNER OF THE FOLLOWING DESCRIBED PROPERTY TO WIT:
A TRACT OF LAND BEING IN A PORTION OF THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 11 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPLE MERIDIAN, EL PASO COUNTY, COLORADO, DESCRIBE AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID SECTION 7,
THENCE N89°57'46"E, 1488.30 FEET ALONG THE NORTH LINE OF SAID NORTHWEST 1/4;
THENCE S15°11'17"W, 501.97 FEET;
THENCE S40°55'52"W, 1114.98 FEET;
THENCE S89°53'43"W, 627.21 FEET TO A POINT ON THE WEST LINE OF SAID NORTHWEST 1/4;
THENCE N00°02'20"E, 1326.98 FEET ALONG THE WEST LINE OF SAID NORTHWEST 1/4 TO THE NORTHWEST CORNER THEREOF, AND THE POINT OF BEGINNING.
AREA = 35 ACRES, MORE OR LESS.

OWNERS CERTIFICATE:

THE UNDERSIGNED OWNER THE UNDERSIGNED BEING THE OWNER IN THE LAND DESCRIBED HEREIN, HAS LAID OUT, SUBDIVIDED AND PLATTED SAID LAND INTO LOTS, STREETS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF MARIAN TRAIL FILING NO. 1. ALL PUBLIC IMPROVEMENTS SO PLATTED ARE HEREBY DEDICATED TO PUBLIC USE AND SAID OWNER DOES HEREBY COVENANT AND AGREE THAT THE PUBLIC IMPROVEMENTS WILL BE CONSTRUCTED TO EL PASO COUNTY STANDARDS AND THAT PROPER DRAINAGE AND EROSION CONTROL FOR SAME WILL BE PROVIDED AT SAID OWNER'S EXPENSE. ALL TO THE SATISFACTION OF THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO. UPON ACCEPTANCE BY RESOLUTION, ALL PUBLIC IMPROVEMENTS SO DEDICATED WILL BECOME MATTERS OF MAINTENANCE BY EL PASO COUNTY, COLORADO. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE EASEMENTS ARE ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES.

BY: THOMAS D KIRK, JR

THOMAS D KIRK, JR

NOTARIAL:

STATE OF COLORADO) JSS
COUNTY OF EL PASO)

THE ABOVE AND AFOREMENTIONED WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 2023 A.D., BY THOMAS D KIRK, JR, OWNNER

WITNESS MY HAND AND SEAL _____

SURVEYOR'S CERTIFICATE

I Randall D. Hency, a duly registered Professional Land Surveyor in the State of Colorado, do hereby certify that this plat correctly represents the results of a survey made on date of survey, by me or under my direct supervision and accurately shows subdivision thereof, and that all monuments exist as shown hereon; that mathematical closure errors are less than 1: 10,000; and that said plat has been prepared in full compliance with all applicable provisions of the El Paso County Land Development Code, and that the requirements of Title 38 of the Colorado Revised Statutes, 1973, as amended, have been met to the best of my professional knowledge, belief and opinion and that it is in accordance with applicable standards of practice and this is not a guaranty or warranty, either expressed or implied.

Randall D. Hency
Colorado Professional Land Surveyor No. 27605

APPROVALS:

This plat for Maria Trail Filing No. 1 was approved by the El Paso County Planning and Community Development Department Director on the _____ day of _____, 2023, subject to any notes or conditions specified hereon.

Planning and Community Development Director _____

Board of County Commissioners' Certificate

This plat for Maria Trail Filing No. 1 was approved for filing by the El Paso County, Colorado Board of County Commissioners on the _____ day of _____, 2023, subject to any notes specified hereon and any conditions included in the resolution of approval. The dedications of land to the public (streets and easements) are accepted, but public improvements thereon will not become the maintenance responsibility of El Paso County until preliminary acceptance of the public improvements in accordance with the requirements of the land Development Code and Engineering Criteria Manual and the Subdivision Improvements Agreement.

Chair, Board of County Commissioners _____ Date _____

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO) JSS
COUNTY OF EL PASO)
I HEREBY CERTIFY THIS INSTRUMENT WAS FILED FOR RECORD IN MY OFFICE AT _____ O'CLOCK _____ M., THIS _____ DAY OF _____, 2023 A.D., AND IS DULY RECORDED AT RECEPTION NUMBER _____ OF THE RECORDS OF EL PASO COUNTY.

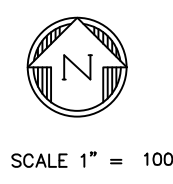
STEVE SCHLEIKER, CLERK AND RECORDER
BY: _____ DEPUTY

DATE OF PREPARATION: 02/21/23 PCD FILE NO.

REGISTERED LAND SURVEYOR IN THE STATE OF COLORADO, NO. 27605 FOR AND ON BEHALF OF POLARIS SURVEYING, INC. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

MARIAH TRAIL FILING NO. 1

A PORTION OF THE NORTHWEST QUARTER OF SECTION 7,
TOWNSHIP 11 SOUTH, RANGE 65 WEST, OF THE 6th PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO.



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

DRAWN BY:	TJW	DATE:	02/21/2023
CHECKED BY:	RDH	DRAWING NO.:	N/A
JOB NO.:	230109	SHEET:	1 of 1

POLARIS SURVEYING, INC. 1903 Lelaray Street, Suite 102 COLORADO SPRINGS, CO 80909 (719)448-0844 FAX (719)448-9225	FINAL PLAT OWNER: THOMAS D KIRK JR 19205 MARIAH TRAIL, CO.SPR. 80908
	SHEET 1 OF 3

Appendix E: CDPHE Brochure

REPORTING CHEMICAL SPILLS AND RELEASES IN COLORADO

General

For all hazardous substance incidents, local emergency response agencies must be notified.

Releases from Fixed Facilities

The Superfund Amendments and Reauthorization Act (SARA) Title III, requires reporting releases from fixed facilities

Refer to the SARA Title III List of Lists, available from the Environmental Protection Agency (EPA), for the reportable quantity.

The party that owns the spilled material must immediately notify the following agencies or organizations:

- National Response Center (NRC) 1-800-424-8802;
- Colorado Emergency Planning Committee (CEPC), represented by the Colorado Department of Public Health and Environment (CDPHE) 1-877-518-5608; and
- Local Emergency Planning Committee (LEPC) 1-720-852-6600.

In addition to telephone notification, the responsible party must also send written notification describing the release and associated emergency response to both the CEPC (in this case, CDPHE) and the LEPC.

Releases from RCRA Facilities

Emergency releases from facilities permitted under the Resource Conservation and Recovery Act (RCRA) are reportable according to the permit requirements.

The permit often requires reporting to CDPHE, even if the amount of the release is less than a reportable quantity under SARA Title III (6 CCR 1007-3 Part 264).

Permitted facilities and large quantity generators (LQGs) of hazardous waste are required to have and implement a contingency plan that describes the actions facility personnel must take in response to fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water at the facility (6 CCR 1007-3 Sections 264.52/265.52).

Whenever there is an imminent or actual emergency situation, appropriate state or local agencies, with designated response roles as described in the contingency plan, must be notified immediately.

The National Response Center or government official designated as the regional on-scene coordinator must be notified immediately if it is determined that the facility has had a release, fire or explosion that could threaten human health or the environment outside the facility (6 CCR 1007-3 Sections 264.56/265.56).

CDPHE and local authorities must be notified when the facility is back in compliance and ready to resume operations. In addition, the facility must send a written report to CDPHE within 15 days of any incident that requires implementation of the contingency plan. The contingency plan should include current contact information for notification and submittal of written reports.

Permitted facilities and LQGs that store hazardous waste in tanks must notify CDPHE within 24 hours of any release to the environment that is greater than one (1) pound and must submit a written report to CDPHE within 30 days of the release (6 CCR 1007-3 Section 264.196 (d)/265.196(d)).

Transportation Accidents

Transportation accidents that require reporting:

- Result in a spill or release of a hazardous substance in excess of the reportable quantity (40 CFR Part 302.6)
- Cause injury or death or cause estimated property damage exceeding \$50,000.

- Cause an evacuation of the general public lasting one or more hours.

Those that close or shut down one or more major transportation arteries or facilities or result in fire, breakage, spillage, or suspected contamination from radioactive or infectious substances must immediately be reported to the National Response Center.

Refer to the EPA SARA Title III List of Lists for those substances that have reportable quantities.

In addition to the NRC being notified, the local emergency number (9-1-1) must be called and CDPHE should be notified.

Written notification of any transportation accident involving a release of hazardous materials must be provided to the U.S. Department of Transportation within 30 days (49 CFR Part 171.16)

Since hazardous waste is a subset of hazardous materials, transporters who have discharged hazardous waste must notify the NRC and provide a written report to the US Department of Transportation as noted in the above reporting requirements.

The transporter must give immediate notice to the nearest Colorado State Patrol office (8 CCR 1507-8 HMP 5) and the nearest law enforcement agency if the accident or spill involved a vehicle (42-20-113(3) CRS).

Notification and a written report detailing the ultimate disposition of the discharge of hazardous waste must also be provided to CDPHE (6 CCR 1007-2 Section 263.30). This may be a duplicate copy of the US Department of Transportation report

In the event of a spill or discharge of hazardous waste at a transfer facility, the transporter must notify CDPHE within 24 hours if the spill exceeds 55 gallons or if there is a fire or explosion.

Within 15 days of a reportable incident, the transporter must submit a written report of the incident to CDPHE, including the final disposition of the material (6 CCR 1007-2 Section 263.40).

Releases of hazardous waste at a transfer facility may also require notification to the National Response Center and a written report to the U.S. Department of Transportation.

Releases to Water

A release of any chemical, oil, petroleum product, sewage, etc., which may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS).

Written notification to CDPHE must follow within five (5) days (5 CCR 1002-61, Section 61.8(5)(d)).

Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.

Releases of petroleum products and certain hazardous substances listed under the Federal Clean Water Act (40 CFR Part 116) must be reported to the National Response Center as well as to CDPHE (1-877-518-5608) as required under the Clean Water Act and the Oil Pollution Act.

Releases to Air

Any unpredictable failure of air pollution control or process equipment that results in the violation of emission control regulations should be reported CDPHE by 10 a.m. of the following working day, followed by a written notice explaining the cause of the occurrence and describing action that has been or is being taken to correct the condition causing the violation and to prevent such excess emissions in the future (5 CCR 1001-2 Common Provisions Regulations Section II.E).

If emergency conditions cause excess emissions at a permitted facility, the owner/operator must provide notice to CDPHE no later than noon of the next working day following the emergency, and follow by written notice within one month of the time when emission limitations were exceeded due to the emergency (5 CCR 1001-5, Regulation 3 Part C, Section VII.C.4).

Releases from Oil and Gas Wells

All spills and releases of exploration and production wastes or produced fluids which meet the reporting thresholds of the Colorado Oil and Gas Conservation Commission (COGCC) Rule 906 shall be reported verbally to the COGCC within 24 hours of discovery and on the COGCC Spill/Release Report Form 19 within 72 hours of discovery.

Spills are reportable to the COGCC in the following circumstances:

- 1) the spill or release impacts or threatens to impact any waters of the state, a residence or occupied structure, livestock or a public byway;
- 2) a spill or release in which 1 barrel or more is released outside of berms or other secondary containment; or
- 3) any spill or release of 5 barrels or more. If the spill impacts or threatens to impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), it must also be reported immediately to CDPHE (25-8-601 CRS).

COGCC also requires reportable spills be reported to the surface owner and local government. Whether or not they are reportable, spills or releases of any size must be cleaned up as soon as practicable.

Releases from Storage Tanks

Petroleum releases of 25 gallons or more (or that cause a sheen on nearby surface waters) from regulated aboveground and underground fuel storage tanks must be reported to the State Oil Inspector within 24 hours (after-hours contact CDPHE Emergency and Incident Reporting Line). This includes spills from fuel pumps.

Spills or releases of hazardous substances from regulated storage tanks in excess of the reportable quantity (40 CFR Part 302.6) must be reported to the National Response Center and the local fire authority

immediately, and to the State Oil Inspector within 24 hours. (8-20.5-208 CRS and 7 CCR 1101-14 Article 4).

Owners/operators of regulated storage tanks must contain and immediately clean up a spill or overfill of less than 25 gallons of petroleum and a spill or overfill of a hazardous substance that is less than the reportable quantity.

If cleanup cannot be accomplished within 24 hours, the State Inspector of Oils must be notified immediately (7 CCR 1101-14 Article 4-4).

CDPHE should also be notified in the case of hazardous substance releases as cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Any release that has or may impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), no matter how small, must be reported immediately to CDPHE (25-8-601 CRS).

Releases from Pipelines

Releases of five or more gallons of hazardous liquids or carbon dioxide from a pipeline that result in explosion or fire, cause injury or death or cause estimated property damage (including cost of clean-up and recovery, value of lost product and property damage) exceeding \$50,000 must be reported immediately to the US Department of Transportation Office of Pipeline Safety (49 CFR Part 195 Subpart B) and the National Response Center.

Releases of five or more gallons of hazardous liquids or carbon dioxide from interstate pipelines that do not involve explosion or fire, injury or death or property damage exceeding \$50,000 should be reported to the US Department of Transportation Office of Pipeline Safety within 30 days after the incident.

Releases of natural gas from intrastate pipelines that cause injury or death, property damage in excess of \$50,000 (including the cost of lost product), closure of a public road, or evacuation of 50 or more people must be reported immediately to the Colorado Public Utilities Commission, Pipeline Safety Group (4 CCR 723-11-2).

Releases of natural gas or liquefied natural gas (LNG) from interstate pipelines that cause injury or death,

property damage in excess of \$50,000 (including the cost of lost product), or results in an emergency shutdown of the facility must be reported immediately to the National Response Center and the US Dept of Transportation Office of Pipeline Safety.

Releases of oil, petroleum products or other hazardous liquids from interstate and intrastate pipelines that have or may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS). CDPHE should also be notified of releases to soil bas cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Radiological Accidents, Incidents, and Events

CDPHE must be notified of any condition that has caused or threatens to cause an event, which meets or exceeds the criteria specified in (6 CCR 1007-1) RH 4.51 and RH 4.52 of the State of Colorado *Rules and Regulations Pertaining to Radiation Control*. Reportable events include lost radioactive materials, lost radiation producing machines, over-exposures to persons, contamination events and fires or explosions involving radioactive materials.

Depending upon the severity of the event, notification may be required immediately, within 24 hours, or within 30 days. In most cases, a written follow-up report is also required.

If you are unsure of the proper notification requirement, please contact CDPHE immediately. During normal business hours, the Laboratory and Radiation Services Division is available to receive telephone notifications at (303) 692-3300. After hours contact the CDPHE Emergency and Incident Reporting Line **1-877- 518-5608**.

NOTIFICATION NUMBERS

Colorado Department of Public Health and Environment toll-free 24-hour environmental emergency and incident reporting line: **(877) 518-5608 (24-hour)**

National Response Center
(800) 424-8802 (24-hour)

State Oil Inspector (Colorado Division of Oil & Public Safety-Above & Underground Storage Tank Regulators)
(303) 318-8547



Colorado Department of Public Health and Environment

**Office of Emergency
Preparedness & Response**

Environmental Spill Reporting

**24– Hour Emergency and
Incident Reporting Line
1-877-518-5608**

Updated February 2017

Appendix F: SWMP Inspection Log

Appendix G: GEC Plan