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Church at Bent Grass Meadows
Stormwater Management Plan (SWMP)

June 16, 2026

HR Green Project No: 2403591

El Paso County No. SF268

Prepared For (Applicant/Owner):

FAL Realty, LLC.

Owner/Developer

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Prepared By:

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Qualified Stormwater Manager:

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[TBD Company Name]

[TBD Company Address]

Contractor/Operator:

[TBD Name]

[TBD Company Name]

[TBD Company Address]

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Contact:

Company:

Title:

Phone Number:

Address:

▷ GEC ADMINISTRATOR:

Contact:

Company:

Title:

Phone Number:

Address:

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.

Name: Richard D. Lyon, P.E. Date: 6/16/2026

Phone Number: 719-394-2435

Seal



I. Site Location & Description

Location

The Church at Bent Grass Meadows, referred to as 'the site' herein, totals 8.34 acres of a portion of the east half of the northeast quarter of Section 1, Township 13 South, Range 65 West of the 6th P.M., El Paso County, Colorado. The site is bound to the north by the Woodmen Hills Filing No. 4 residential subdivision. To the east of the site is the 120' wide public right-of-way of Meridian Road and across the roadway is Woodmen Hills Filing No. 5 and Filing No. 8. Directly adjacent to the site's eastern property boundary is a 75' wide right-of-way dedication, Reception No. 211037676. Immediately south of the site is the 80'-wide public right-of-way of Bent Grass Meadows Drive and south of the roadway are the commercial subdivisions of Bent Grass Plaza and Bent Grass East Commercial. There are no existing or proposed public roadways internal to the site. The assessor's parcel numbers for the two lots to be platted as a single lot for this development are 5301000026 and 5301000033. The property is not within a Streamside Zone or Hillside Zone. There are no no-build or preservation easements or areas within the platted parcels.

Legal Descriptions

Parcel A:

A parcel of land being a portion of the South one-half of the Northeast one-quarter (S1 /2 NE1/4) of Section 1, Township 13 South, Range 65 West of the 6th P.M., situate in El Paso County, Colorado, described as follows: Commencing at the Northeast corner of said Section 1'S S1/2 NE1/4 (all bearings in this description are relative to the East line of said S1/2 NE1/4, which bears South 00 degrees 00 minutes 06 seconds West "Assumed"); thence South 00 degrees 00 minutes 06 seconds West along said S1/2 NE1/4'S East line, 621.14 feet to a point on the North line of the South 40 feet of the North one-half of said S1 /2 NE1/ 4; thence North 89 degrees 52 minutes 03 seconds West along said North line, 360.22 feet to the Point of Beginning of the parcel herein described; thence continue North 89 degrees 52 minutes 03 seconds West along said North line, 300.00 feet; thence North 00 degrees 02 minutes 26 seconds East, 300.00 feet; thence South 89 degrees 52 minutes 03 seconds East,

300.00 feet; thence South 00 degrees 02 minutes 26 seconds West, 300.00 feet to the Point of Beginning, County of El Paso, State of Colorado.

Parcel B:

A parcel of land being a portion of the South one-half of the Northeast one-quarter (S1 /2 NE1/4) of Section 1, Township 13 South, Range 65 West of the 6th P.M., situate in El Paso County, Colorado, described as follows: Beginning at the corner of said Section 1'S S1/2 NE1/4 (all bearings in this description are relative to the East line of said S1/2 NE1/4, which bear S 00 degrees 00 minutes 06 seconds W "Assumed"); thence S 00 degrees 00 minutes 06 seconds W along said S1/2 NE1/4'S East line, 621.14 feet to a point on the North line of the South forty (40) feet of the North one-half of said S1/2 NE1/4; thence N 89 degrees 52 minutes 03 seconds W along said North line, 660.31 feet; thence N 00 degrees 02 minutes 26 seconds E, 620.73 feet to a point on the North line of said S1/2 NE1 / 4; thence S 89 degrees 54 minutes 10 seconds E along said S1 /2 NE1 / 4'S North line, 659.89 feet to the Point of Beginning, excepting therefrom that portion conveyed by Special Warranty Deed recorded September 01, 2010 at Reception No. 210085395 and excepting therefrom those portions conveyed by Special Warranty Deeds recorded April 15, 2011 at Reception No. 211037676 and recorded April 15, 2011 at Reception No. 211037677, County of El Paso, State of Colorado.

Description of Property

The only existing improvement onsite is a private paved access at the southern end with sanitary, water, and gas utility stubs.

There are no existing drainageways traversing the site. The site falls within the Falcon Drainage Basin. A majority of stormwater runoff upstream of the development sheet flows over undeveloped land to a grass lined ditch along the west side of Meridian Road (Public 210' Right of Way), directly adjacent to the southeast corner of the site. The remaining runoff that crosses the site concentrates in the vertical curb of Bent Grass Meadows Drive and outfalls into the aforementioned ditch via rip rap rundown. Culminated flows are then conveyed south under Bent Grass Meadows Drive via (5) five 28"X36", public Horizontal Elliptical Reinforced Concrete Pipe (HERCP) culverts into a continuation of the ditch. The ditch and culverts are publicly maintained by El Paso County. Refer to the Grading and Erosion Control Plans in Appendix B for a visual depiction and locations of this infrastructure.

Construction Activity

The proposed development is to include construction of the proposed church building, onsite parking lot, additional site access, onsite private storm sewer, water/sanitary extensions, and a private Full Spectrum Detention pond (Pond A). Temporary Sediment Basin (TSB) 1 shall provide means for water quality treatment for site disturbance in the interim until it is converted to Pond A. Private storm infrastructure shall be maintained by the Church Metropolitan District. Construction activities include but are not limited to corridor and pond grading, pavement installation, utility installation, storm sewer installation, final landscaping, and final stabilization of disturbed areas.

Initial, interim, and final phases of erosion and sedimentation control have been incorporated into this Stormwater Management Plan to manage stormwater discharge from the construction activities under the County's MS4 Permit. These phases are discussed in the following section.

Offsite disturbance to the south occurs due to the addition of a westbound deceleration lane in Bent Grass Meadows Drive (80' Right of Way, Modified Urban Collector). Appropriate permits shall be obtained for work in the Right of Way. The total disturbance area is 8.58 acres.

II. Construction Phasing

Phasing and Sequence Schedule

The proposed major construction activities and Construction Control Measures for the project correspond to the Grading and Erosion Control Plans and are sequenced as follows:

1. Install initial phase SF and VTC perimeter controls. (Fall 2027)
2. Clear, grub and grade site & for improvements. (Fall 2027)
3. Construct TSB 1 and install temporary diversion ditches, including permanent diversion swales along the western and northern property boundaries. (Fall 2027)
4. Establish interim phase SSA, CWA, SCL, IP's, and excavate to install wet utilities and construct onsite improvements. (Fall 2027)
5. Convert TSB 1 to Full Spectrum Detention Pond A. (Spring 2028)
6. Construct Bent Grass Meadows Drive improvements. (Spring 2028)

7. Finalize onsite landscaping. (Summer 2028)
8. Install final phase ECB and SM, remove perimeter and temporary controls. (Summer 2028)
9. Ensure final stabilization achieved prior to site closure. Visual inspection to adjacent, existing vegetation is acceptable. (Fall 2028)

Construction Documentation

Construction drawings are provided with this document showing the Grading and Erosion Control plan for this project and are intended to be a "living" document used by the SWMP Manager to document construction activities. See Appendix F for record log.

III. Pre-Development Conditions and Soils

Floodway

According to the current FEMA Flood Insurance Rate Maps FEMA FIRM 08041C0553G revised December 7, 2018, this site is designated as Zone X (outside 0.2% chance of flood). See Appendix A for FEMA FIRM Exhibit.

Natural Features Environmental Memo

The "Natural Features and Wetlands Report", prepared by Bristlecone Ecology, dated October 2024 identifies Black-tailed Prairie Dogs and Burrowing Owls as sensitive species of concern on site. Per this report, a 6.8 acre colony of approximately 34 Black-tailed Prairie Dogs or more were observed. Burrowing Owls typically utilize abandoned Prairie Dog burrows for nesting, which is the case for one observed owl onsite. Not mentioned in the report is reference to the undeveloped land to the west, which may likely provide a suitable relocation for the aforementioned sensitive species. The start of the construction schedule reflects an anticipated migration timeframe for the Burrowing Owl.

Existing Vegetation

The existing vegetative cover is approximately 75 percent as evidenced by a field survey and aerial imagery. The existing vegetation includes native grasses, weeds, and shrubs. Noxious weeds are prevalent in high densities throughout the site. Among these are musk thistle (List B species that must be eradicated, contained, or suppressed) and common mullein (List C species that must be controlled through public education and/or chemical control). It is anticipated these weeds will concentrate throughout areas disturbed for construction, therefore, caution must be taken with prevention, control, and monitoring the spread of these weeds. El Paso County requires control of all List B noxious weed populations located within the project area. Refer to the "Natural Features and Wetlands Report", prepared by Bristlecone Ecology, dated October 2024 for an outline of a noxious weed management plan.

Existing Slopes

The site consists of a fairly consistent slope between 2% and 3% in a southeasterly direction.

Existing Drainage Patterns

A majority of stormwater runoff upstream of the development sheet flows over undeveloped land to a grass lined ditch along the west side of Meridian Road (Public 210' Right of Way), directly adjacent to the southeast corner of the site. The remaining runoff that crosses the site concentrates in the vertical curb of Bent Grass

Meadows Drive and outfalls into the aforementioned ditch via rip rap rundown. Culminated flows are then conveyed south under Bent Grass Meadows Drive via (5) five 28”X36”, public Horizontal Elliptical Reinforced Concrete Pipe (HERCP) culverts into a continuation of the ditch. The ditch and culverts are publicly maintained by El Paso County.

According to the US Department of Agriculture Natural Resources Conservation Service Soil Survey of El Paso County, Colorado, the site consists of 100% Columbine gravelly sandy loam per the USDA, NRCS web soil survey. This soil is categorized as Hydrologic Soil Group A, which consist of deep, well-drained to excessively drained sands/gravelly sands with a high infiltration rate when thoroughly wet. The NRCS soil survey is presented in Appendix A.

The existing soil types have a moderate potential for erosion which can be mitigated by employing appropriate downstream construction BMPs before/during/after construction to limit potential impacts to stormwater discharges. The potential impacts are sediment discharge into the existing stormwater conveyance system.

IV. Description of Potential Pollutants

Potential sources of sediment to stormwater runoff include earth moving and concrete activities associated with grading, residential structure construction including concrete foundations and hardscape, and landscaping.

Potential pollutants and sources other than sediment to stormwater runoff include trash, debris, fueling and equipment failure. Materials of significance stored on the project site include: sediment, concrete washout, cement, trash & debris, fuels and oils.

Discharges of concrete/masonry washout water are the only allowable non-stormwater discharges from the site.

Construction activities can produce a variety of pollutants that can potentially cause stormwater contamination. Grading activities remove rocks, vegetation and other erosion controlling surfaces and can result int he exposure of underlying soil to the elements, which can then be displaced into water sources.

Wind and erosion and vehicular transport can produce sediment debris.

Potential Sources of Pollution:

1. Potential sources of pollution from construction activities include
    a. Disturbed or stored soils
    b. Vehicle tracking of sediment
    c. Loading & unloading operations
    d. Outdoor Storage activities
    e. Vehicle and Equipment Maintenance/Fueling
    f. Dust or Particulate Generating Processes
    g. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents etc.
    h. On-site waste management (waste piles, liquid wastes, dumpsters)
    i. Concrete truck/equipment washing (washing truck chute and associated fixtures)
    j. Non-industrial waste (worker trash and portable toilets)

V. Self-Inspections

Self-inspections of the Construction Control Measures must be completed by the certified GEC Administrator. The below provides the minimum to satisfy the El Paso County self-inspection requirements. A more frequent self-inspection schedule may be required to ensure Control Measures are operating in compliance with the approved GEC plan.

1. Inspection Schedules:
    a. The GEC Administrator shall make a thorough inspection of the Control Measures:
        i. At least once every fourteen (14) calendar days.
        ii. Within 24 hours following any precipitation event (i.e. rain, snow, hail etc.) that causes surface erosion.
            - Alternatively, the GEC Administrator can perform a thorough inspection of the Control Measures once every seven (7) days and forego post-precipitation inspections.
    b. For sites where construction activities have completed and final stabilization measures installed but final stabilization has not yet been achieved, the GEC Administrator shall make a thorough inspection of the Control Measures:
        i. At least once every 30 days
        ii. Within 72 hours following any precipitation event that causes surface erosion
2. Inspection Procedures:
    a. Site Inspection & Observation Items:
        i. Limits of disturbance perimeter and stormwater discharge points
        ii. All disturbed areas to ensure necessary Construction Control Measures are in place to control potential stormwater runoff.
        iii. Areas used for material/waste storage.
        iv. Any areas having a signification potential for storm water pollution (i.e site entrances, concrete washout areas etc.)
        v. All Construction Control Measures identified on the GEC plans.
    b. Inspection Requirements:
        i. Determine any locations, or potential locations, where pollutants and stormwater may be exiting the site/entering the receiving waters.
        ii. Evaluate Construction Control measures and determine if they are constructed in accordance with the latest revision of the approved GEC plan and operating effectively.
        iii. Provide recommendations for the need of additional Construction Control measures and the maintenance of existing measures in disrepair to ensure complication with the El Paso County Stormwater Construction Manual.
    c. Construction Control Measure Maintenance/Replacement:
        i. The GEC administrator shall ensure sediment has been removed from perimeter controls and relocated to an area without the potential for sediment to discharge from the site
        ii. The GEC administrator shall ensure diversion ditches and temporary sediment ponds have not accumulated excess sediment that impedes their functionality.
        iii. The GEC administrator shall ensure that failed Control Measures are repaired/reinstalled within three (3) calendar days, according to the El Paso County Stormwater Control

Measure details, to ensure pollutants and/or sediment do not discharge from the site. GEC details are provided in the GEC Plans and can be viewed in Appendix B.

d. Documentation:
    i. Update the GEC plan to document the installation/revision of Control Measures
    ii. Identify Control Measure deficiencies and that noncompliance is resolved within three (3) calendar days.
    iii. Identify Self-Inspection schedule in most recent inspection form
    iv. Complete and submit Self-Inspection forms to the El Paso County within five (5) business days of the completed inspection
    v. Ensure this SWMP, along with the associated GEC Plans, are available either physically or electronically throughout the duration of the project
    vi. Self-Inspection Repost shall contain at least the following:
        - Inspection Date
        - Name and title of the GEC Administrator performing inspection
        - Location(s) of illicit discharges of stormwater, sediment or pollutants from the site
        - Location(s) of Construction Control Measures in need of maintenance/repair
        - Location(s) of Construction Control Measures that failed to operate as designed or proved inadequate
        - Location(s) of additional Construction Control Measures not shown on the latest, approved revision of the GEC plan
        - Any deviations from the minimum inspection schedule
        - Signature of GEC Administrator

VI. Materials Handling

1. General Materials Handling Practices:
    a. Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should be located away from storm drain inlets and should be equipped with covers, roofs or secondary containment as required to prevent stormwater from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spill materials cannot combine and react.
    b. Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
    c. Materials no longer required for construction shall be removed from the site as soon as possible.
    d. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and Control Measures clear and functional.
2. Specific Materials Handling Practices:
    a. All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate stormwater.
    b. All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored onsite shall be covered and protected from vandalism.

c. Maintenance, fueling, and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, degreasing operation, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.
d. Wheel wash water shall be settled and discharged onsite by infiltration.
e. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturer's recommendations for application rates and procedures.
f. pH-modifying sources shall be managed to prevent contamination of runoff and stormwater collected onsite. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

VII. Spill Prevention & Response Plan

1. The primary objective in responding to a spill is to quickly contain the material and prevent or minimize their mitigation into stormwater runoff and conveyance systems. If the release has impacted onsite stormwater, it is critical to contain the released materials onsite and prevent their release into receiving waters.
2. Spill Response Procedures:
    a. Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
    b. If spills represent an imminent threat of escaping onsite facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent once the situation has stabilized.
    c. The site superintendent shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.
    d. Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
3. Spill kits shall be on-hand at all fueling sites. Spill kit locations shall be reported to the GEC administrator.
4. Absorbent materials shall be on-hand at all fueling areas for use in containing advertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
5. Recommended components of spill kits include the following:
    a. Oil absorbent pads
    b. Oil absorbent booms
    c. 55-gallon drums
    d. 9-mil plastic bags
    e. Personal protective equipment including gloves and goggles
6. Concrete wash water: unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site.
7. Notification procedures:

a. In the event of an accident or spill, the GEC administrator shall be notified.
b. Depending on the nature of the spill and material involved, the Colorado Department of Public Health and Environment, downstream water users, or other agencies may also need to be notified.
c. Any spill of oil which 1) violates water quality standards, 2) produces a "sheen" on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.

There are no dedicated batch plants proposed as a part of this project and therefore a source of pollution requiring spill prevention and response is not anticipated.

VIII. Implementation of Control Measures

Stormwater control measures must be installed according to El Paso County design specifications, presented in Appendix D, and the approved Grading and Erosion Control plan this report supports (Appendix B). Within the context of this SWMP's construction activities the following control measures, at a minimum, are required:

- Perimeter Silt Fence
  - Silt fence is to be installed at the initial construction phase at the perimeter of the project to prevent sediment runoff offsite from the project disturbance area. While disturbance for roadway construction may be more central to the project construction area, the silt fence acts as a barrier for downstream sediment from the disturbed area and may remain in place for private lot construction.
- Vehicle Tracking Control
  - Vehicle Tracking Control is required for the ingress/egress areas of the project for large construction vehicles to access the site with minimal disturbance to existing infrastructure and pavement. The VTC also assists in debris removal from vehicles prior to exit of the site. The control measure is to be installed at the initial construction phase
- Stabilized Staging Area
  - A designated stabilized staging area is required for equipment staging at the initial construction phase. This area is to be sufficient in size and relatively flat to prevent erosion and sediment runoff when handling materials and maneuvering vehicles. Perimeter controls of the SSA are recommended as localized erosion and sediment control of this area.
- Stockpile Protection
  - A designated stockpile area is required for dirt and debris containment at the initial construction phase. This area is to have perimeter controls for localized erosion and sediment control. Frequent export haul is recommended to maintain a minimal stockpile size and minimize sediment runoff during rain events during construction activities.
- Inlet Protection
  - Inlet protection is to be installed to prevent sediment runoff from entering storm systems and allow present and future stormwater conveyance as designed. Inlet protection is to remain in place until permanent stabilization is completed. Any sediment identified in inlets and storm pipes is to be removed prior to inspection and/or final permanent stabilization. Frequent

inspection and maintenance of the inlet protection is to take place to ensure that wear and tear of the control measure has not taken place.

- Erosion Control Blanket
  - Erosion Control Blanket is to be installed on disturbed slopes of 3:1 or greater to stabilize these areas for permanent stabilization in future construction phases. The erosion control blanket remains in place from the time of disturbance and establishment of the slope in perpetuity as natural degradation of the control measure will occur over time. Any disturbance of the blanket itself requires replacement to ensure stabilization of the slope.
- Diversion Ditches (Earth Dikes & Drainage Swales)
  - Diversion Ditches proposed within this project scope include drainage swales that outfall to temporary sediment basins. The drainage swales are to be maintained throughout the initial construction phase to ensure that tributary areas that the temporary sediment basins are designed for are captured during rain events.
- Seeding & Mulching
  - Seeding and mulching is proposed as a temporary construction phase control measure for slope stabilization and restoration of disturbed areas to remain pervious areas. Permanent seeding and mulching is included in the final construction phase as a permanent stabilization method to stabilize disturbed areas and provide vegetation.
- Concrete Washout Areas
  - Concrete Washout Areas are to be established at the initial construction phase as designated concrete washouts per MHFD details. The designated CWA's are to be monitored to ensure that effluent does not overflow or drain out of the excavation. Removal of materials is to take place prior to deconstruction and fill of the CWA.

Additional control measures may be required at the discretion of the County Stormwater Inspector.

Stormwater pollutant control measures for waste disposal and off-site soil tracking are to follow the State's CDPHE Brochure instructions and guidelines. Site specific off-site soil tracking is to be mitigated via Vehicle Tracking Control measures and daily project site street sweeping. Perimeter control measures are to be inspected and maintained as required to reduce sediment runoff.

IX. Final Stabilization & Long-Term Stormwater Management Plan

1. Temporary seeding and mulching will be installed to provide interim stabilization prior to final landscaping installation, where applicable (Refer to approved Landscape Plan). Final stabilization will be achieved at time of final landscaping. See approved landscaping plans for final stabilization details. Final stabilization is met when a vegetative cover density of 70% pre-disturbed conditions, not including noxious weeds, are achieved. Visual inspection to adjacent existing cover is acceptable. Final stabilization must be achieved prior to removal of temporary stormwater control measures. Anticipated date of final stabilization is Fall 2026, however, this is subject to change. Long term stormwater management will be provided in the proposed onsite, private full spectrum detention pond. Pond A is located at the southeast of the site. Permanent Best Management Practices construction documents for Pond A have been prepared for this development. See below for seeding and mulching details:

a. Prior to seeding, fill any eroded rills and gullies with topsoil.
b. Ensure all areas are seeded and mulched per the County Stormwater Construction Manual.
c. Continue monthly self-inspections of final stabilization methods and the stormwater management system to ensure proper function. If repairs are needed, reseed and re-mulch as needed.
d. Control noxious weeds in a manner acceptable to the GEC inspector.
e. Seed Mix: See Appendix D for approved seed mixes.
f. Seeding Requirements:
    i. Drill seed whenever possible, seed depth must be 1/3 to ½ inch when drill-seeding. Cross drilling should be used whenever possible with the seed divided between the two operations. The second drilling should be perpendicular to the first.
    ii. When drill seeding is not possible or on slopes greater than 3:1, hydro-seeding with tackifier may be substituted at the discretion of the GEC inspector. Hydro-seeding must be lightly raked into soil. Seeding rates are presented in Appendix D.
    iii. All seeded areas must be mulched.
g. Mulching Requirements:
    i. Mulching shall be completed as soon as practical after seeding but no more than fourteen (14) days after planting. Erosion control blanket can be used in place of the below mulching methods.
    ii. Hay or straw mulch:
        1. Only certified weed-free and certified-seed free mulch may be used. Must be applied at 2 tons/acre and adequately secured.
        2. Crimping shall not be used no slopes greater than 3:1, tackifier must be used in place.
    iii. Hydraulic mulching:
        1. Allowable on steep slopes or areas with limited access
        2. If hydro-seeding is used, mulching must be applied secondly.
        3. Wood cellulose fibers mixed with water must be applied at a rate of 2,000-2,500 lbs/acre, and tackifier applied at a rate of 100 lbs/acre.

2. The project control measures are to be owned and maintained by the Developer or their assigns (General Contractor, GEC Administrator).
3. This Stormwater Management Plan Report is a living document that is to be continuously reviewed and modified as part of the overall process of evaluating and managing stormwater quality issues at the site. The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, or operations and maintenance of the site which would require the implementation of new or revised 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 when control measures are no longer necessary and are removed.

X. References

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

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

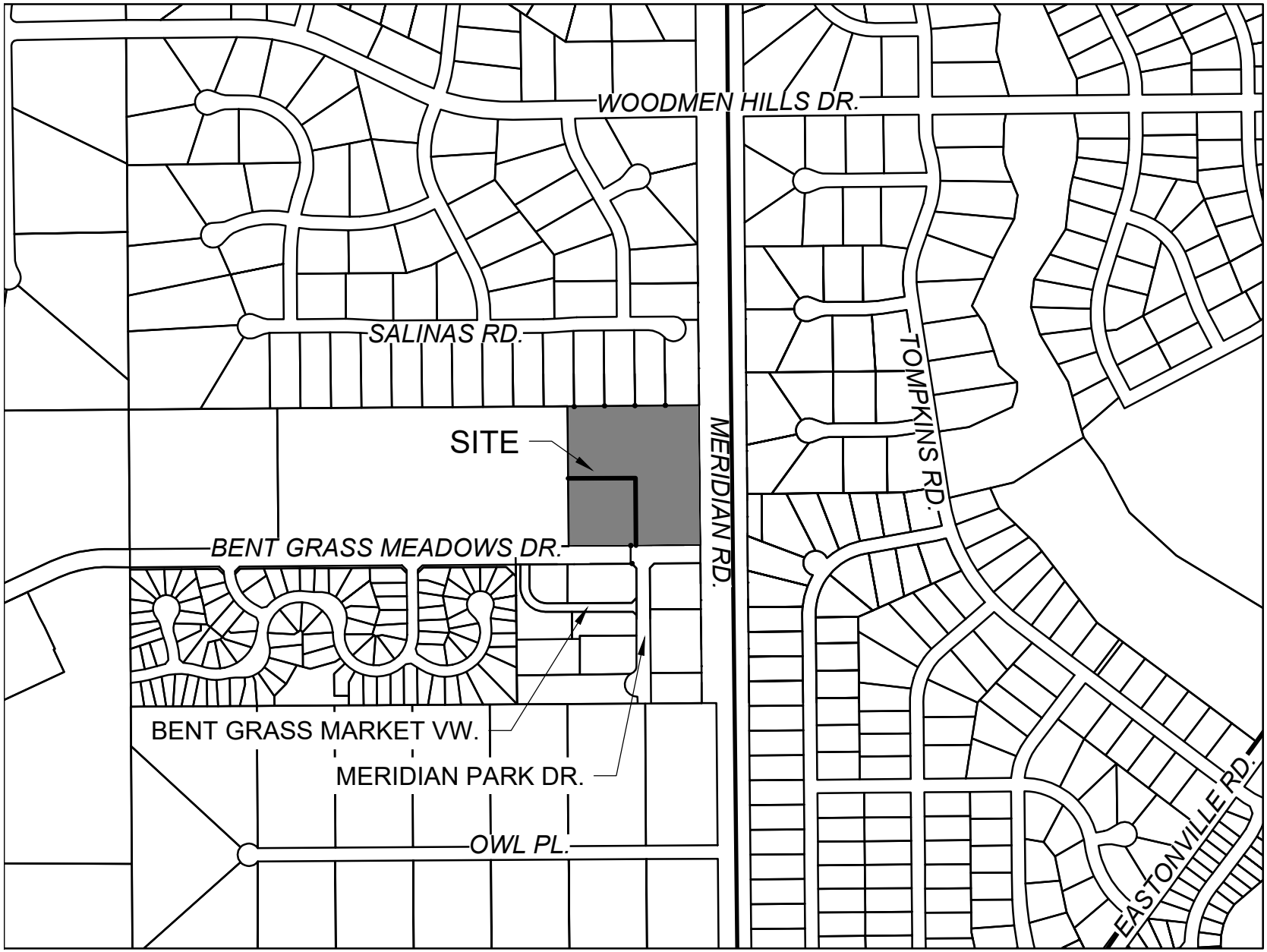
Mile High Flood District Urban Storm Drainage Criteria Manual Volumes 1, 2, and 3; latest revisions

Bristlecone Ecology – Natural Features and Wetlands Report October 8th 2024

APPENDIX A – VICINITY MAP & NRCS SOIL SURVEY & FEMA MAP

VICINITY MAP

CHURCH AT BENT GRASS



N.T.S.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the **North American Vertical Datum of 1988 (NAVD88)**. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at http://www.ngs.noaa.gov/.

Base Map information shown on this FIRM was provided in digital format by El Paso County, Colorado Springs Utilities, City of Fountain, Bureau of Land Management, National Oceanic and Atmospheric Administration, United States Geological Survey, and Anderson Consulting Engineers, Inc. These data are current as of 2006.

This map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable, in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact **FEMA Map Service Center** (MSC) via the FEMA Map Information eXchange (FMIX) 1-877-336-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The MSC may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

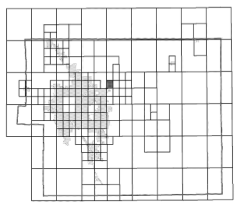
If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

El Paso County Vertical Datum Offset Table

Flooding Source	Vertical Datum Offset (ft)

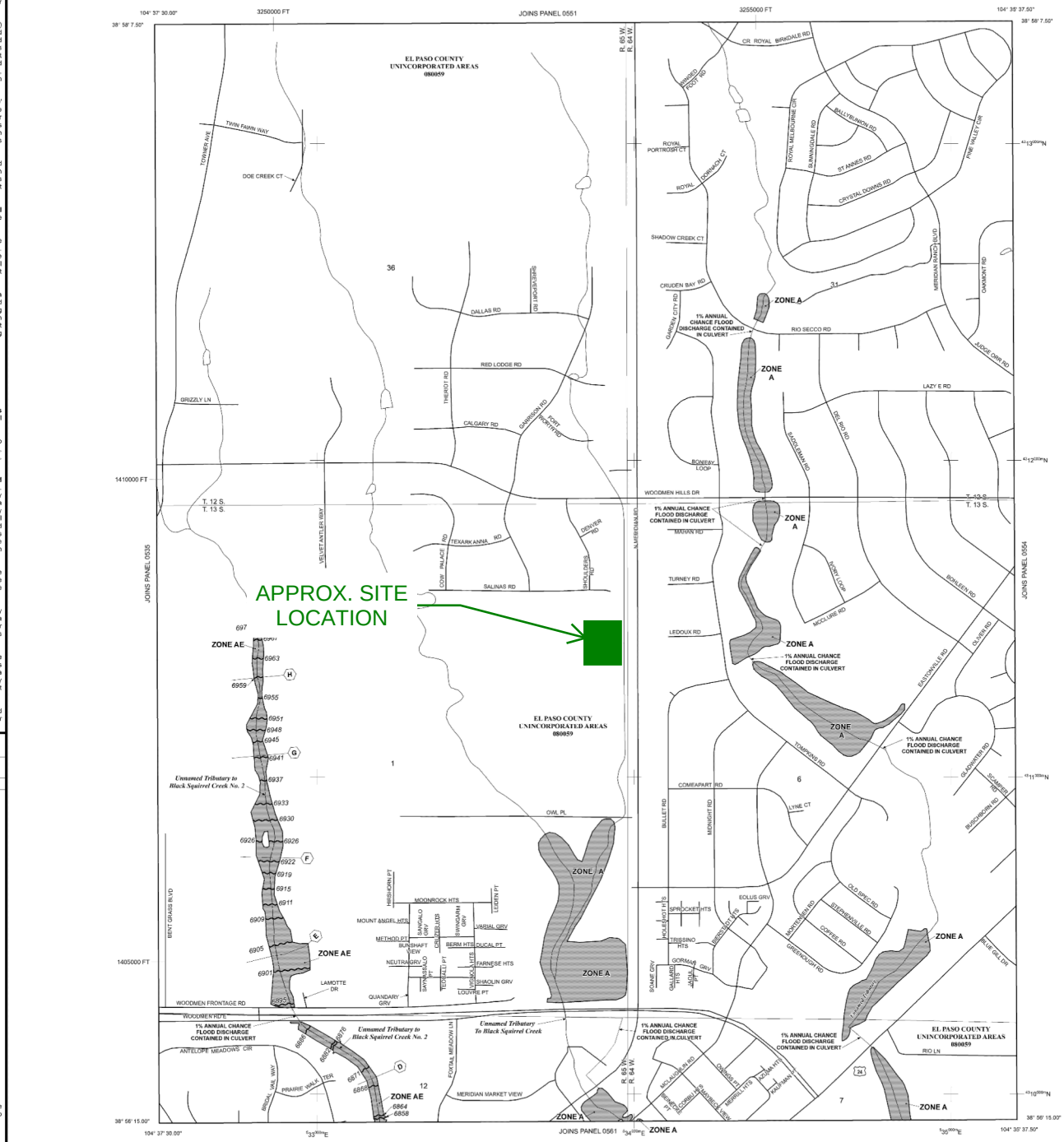
REFER TO SECTION 3.3 OF THE EL PASO COUNTY FLOOD INSURANCE STUDY FOR STREAM BY STREAM VERTICAL DATUM CONVERSION INFORMATION

Panel Location Map



This Digital Flood Insurance Rate Map (DFIRM) was produced through a Cooperating Technical Partner (CTP) agreement between the State of Colorado Water Conservation Board (CWCB) and the Federal Emergency Management Agency (FEMA).

Additional Flood Hazard information and resources are available from local communities and the Colorado Water Conservation Board.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Area Formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary
Floodway boundary
Zone D Boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513 — Base Flood Elevation line and value; elevation in feet*
(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*
* Referenced to the North American Vertical Datum of 1988 (NAVD 88)
A — A — Cross section line
23 — 23 — Transect line
97° 07' 30.00" / 32° 22' 30.00" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
4279000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 13
6000000 FT — 5000-foot grid ticks: Colorado State Plane coordinate system, central zone (FIPSZONE 0502), Lambert Conformal Conic Projection
DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
MARCH 17, 1997

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
DECEMBER 7, 2018 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History Table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0553G

FIRM
FLOOD INSURANCE RATE MAP
EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 553 OF 1300
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
EL PASO COUNTY	080059	0553	G

Notice: This map was reissued on 06/15/2020 to make a correction. This version replaces any previous versions. See the Notice to User Letter that accompanied this correction for details.

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08041C0553G

MAP REVISED
DECEMBER 7, 2018

Federal Emergency Management Agency

National Flood Hazard Layer FIRMette

FEMA

104°36'51"W 38°57'17"N



104°36'14"W 38°56'49"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- 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 *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- 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
- 513 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

N

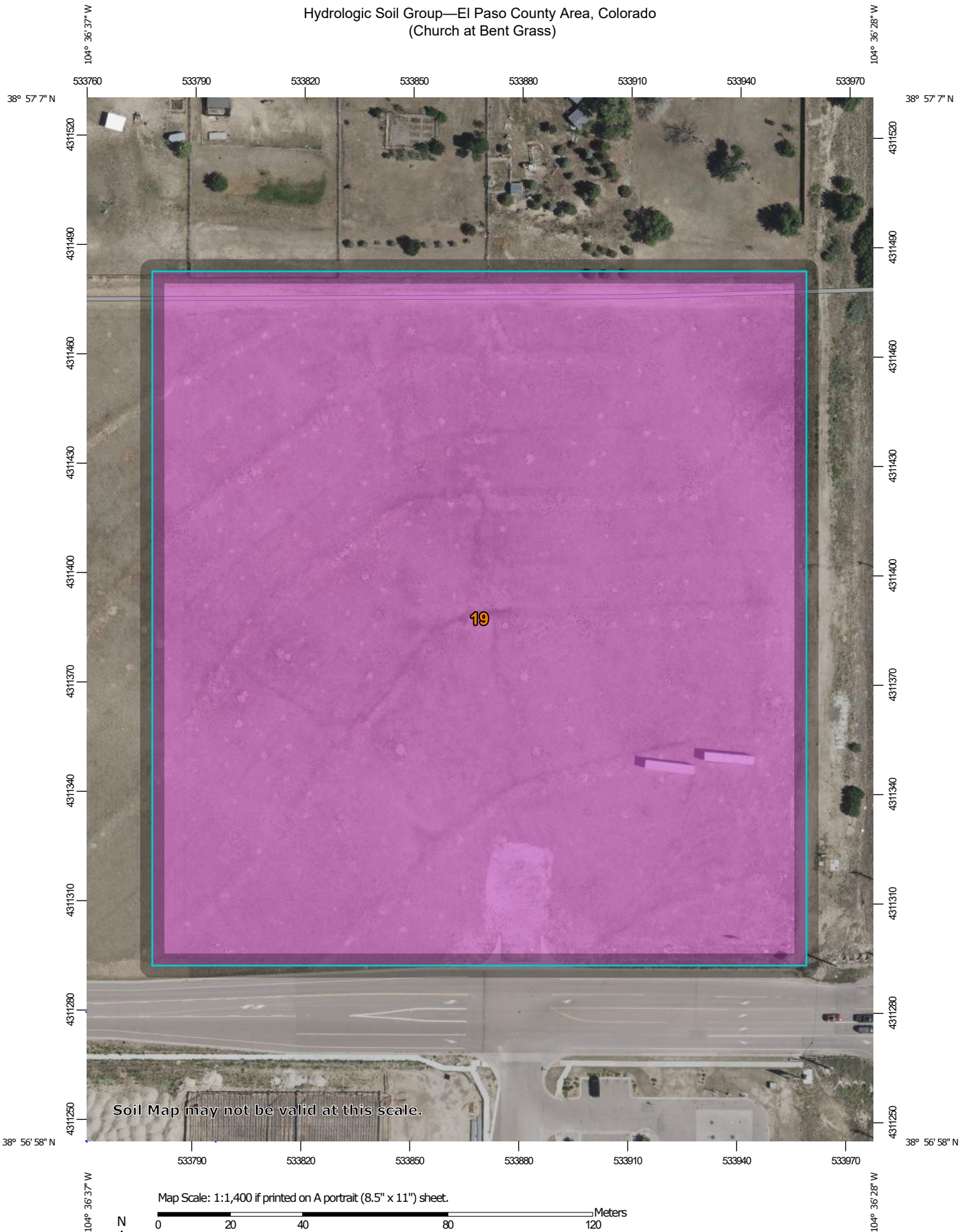
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 3/20/2025 at 4:36 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.

Hydrologic Soil Group—El Paso County Area, Colorado
(Church at Bent Grass)



Map Scale: 1:1,400 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

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 22, Sep 3, 2024

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

Date(s) aerial images were photographed: Jul 23, 2024—Aug 4, 2024

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
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	A	8.5	100.0%
Totals for Area of Interest			**8.5**	**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 B – GEC PLANS

(TO BE INCLUDED ONCE APPROVED)

APPENDIX C – CALCULATIONS

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Jul 9 2026

Temporary GEC Swales - 100 Yr WSEL

Triangular

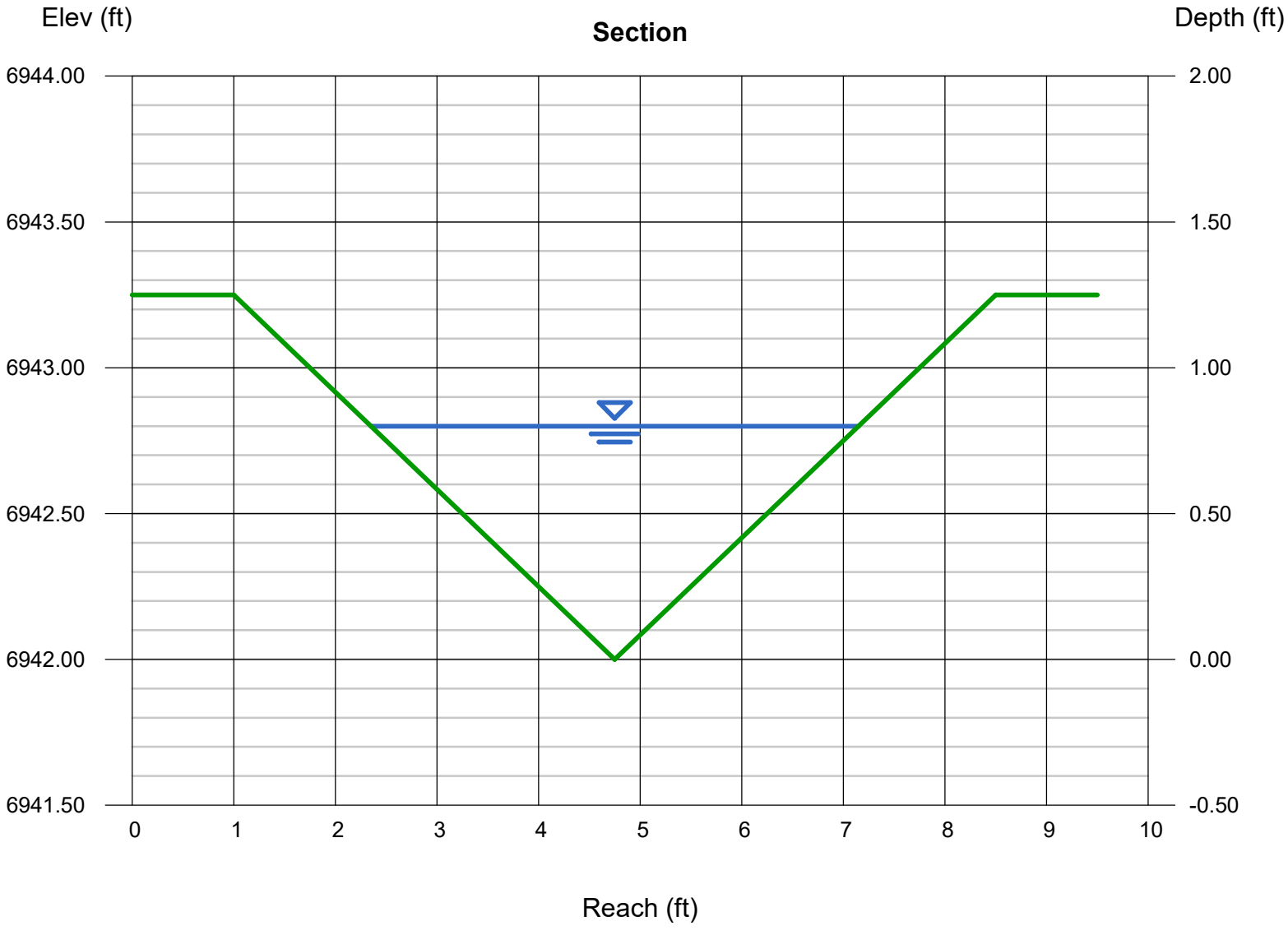
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 1.25
Invert Elev (ft)	= 6942.00
Slope (%)	= 1.20
N-Value	= 0.018

Calculations

Compute by:	Known Q
Known Q (cfs)	= 8.80

Highlighted

Depth (ft)	= 0.80
Q (cfs)	= 8.800
Area (sqft)	= 1.92
Velocity (ft/s)	= 4.58
Wetted Perim (ft)	= 5.06
Crit Depth, Yc (ft)	= 0.89
Top Width (ft)	= 4.80
EGL (ft)	= 1.13



TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vo Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6934.5	10								
6935.0	50		14		14	0.000			
6936.0	1310		539		552	0.013			
6937.0	6749		3,677		4,230	0.097			
6938.0	12197		9,340		13,569	0.312	13,751	0.3157	6,938.01
6939.0	14498		13,331		26,900	0.618	27,502	0.631	6,939.05
6940.0	16534		15,505		42,405	0.973			
6941.0	18694		17,603		60,008	1.378			
6942.0	20979		19,826		79,834	1.833			
6943.0									
6944.0									
6945.0									
6946.0									
6947.0									
6948.0									
6949.0									
6950.0									
6951.0									
6952.0									
6953.0									
6954.0									
6955.0									

COLUMN 1	COLUMN 2	CENTROID EL.
ORIFICE 1-1	ORIFICE 2-1	6,938.01
ORIFICE 1-2	ORIFICE 2-2	6,938.34
ORIFICE 1-3	ORIFICE 2-3	6,938.67

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.3157	design volume (acre feet)	*<15 ac.		
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.032	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
$A_{0=}$	0.9343	in^2	**0.9315**	**in^2**	
Dia	1.09	in	***EXCEEDS 1", TWO COLUMNS @ A_0 =**	**0.47**	**in^2**
	2.18	Dia=/2		**D=**	**0.54 in**
	4.36	Dia=/4		**use**	**1/2 in**
	8.71	Dia=/8		ROW AREA=	1.00 in2
	17.42	Dia=/16		TOTAL AREA=	2.00 in2
	34.85	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	7.639	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	7.639	Acres		
Sediment volume	27,502	cu-ft	0.6314	Acres-ft
Volume below lowest hole	13,751	cu-ft	0.3157	Acres-ft
Volume above lowest hole	13,751	cu-ft	0.3157	Acres-ft
Total Volume	27,502	cu-ft	0.6314	Acres-ft

Note: **Enter values in highlighted cells only.**

BMP FEATURE	TOTAL TRIBUTARY AREA (AC)	DISTURBED AREA (AC)	UNDISTURBED AREA (AC)	BOTTOM SIZE (FT)	SEDIMENT VOLUME (AC-FT)	BASIN VOLUME (AC-FT)	BOTTOM ELEVATION	CREST ELEVATION	CREST, WxL (FT)	TOP OF POND ELEVATION	LOWEST ORIFICE ELEVATION	TOTAL AREA OF ORIFICES (SQ IN)	# OF ORIFICE COLUMNS	DIA. OF ORIFICES (IN)	RISER PIPE INVERT	DAYLIGHT ELEVATION	OUTLET PIPE LENGTH (FT)	OUTLET PIPE SLOPE
TSB 1	7.6	7.6	0.0	67' x 143'	0.63	0.62	6,934.50	6,941.00	15' x 12'	6,942.00	6,938.01	2.00	2	1/2"	6,936.76	6,933.00	116	3.2%

*ORIFICES TO BE EVERY 4" FROM LOWEST ORIFICE ELEVATION TO THE TOP OF RISER PIPE, TOTAL NUMBER OF ORIFICES VARY.

APPENDIX D – EL PASO COUNTY CONSTRUCTION CONTROL MEASURES

(REFER TO DETAIL SHEETS OF APPROVED GEC PLANS IN APPENDIX B FOR PROJECT SPECIFIC CONTROL MEASURE DETAILS)

APPENDIX E – SPILL PREVENTION PLAN

Spill Prevention, Control and Countermeasure (SPCC) Plan

Facility Name: _____
Address: _____
_____

Contact Name: _____
Phone: _____
Fax: _____
Email: _____

Certification: I hereby certify that I have examined the facility, and, being familiar with the provisions of 40 CFR part 112, attest that this SPCC plan has been prepared, or updated within 5 years, in accordance with good engineering practices and meets the requirements listed in 40 CFR part 112.

This plan has been certified by:

Date of certification: _____ *Engineer's Seal*

Copies of this plan are located at the facility and are available to all employees.

Location(s) of plan(s): _____

I. FACILITY INFORMATION

a. Facility Name: _____

b. Mailing Address: _____
_____

c. Physical address if different: _____
_____
_____

d. Owner Name: _____

e. Owner Address: _____
_____

f. Primary Contact Name: _____
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

g. Secondary Contact Name:
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

h. Date of Initial Operation: _____

II. SITE ASSESSMENT

a. Location:
Describe where facility is located. For example, "This site is located along Broad Creek about 2 miles north of its confluence with the Choptank River at Holland Point. Road access is from. . . . The site is located on Talbot County ADC map 22 (H5). Latitude is ___ and longitude is ___ ."

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

III. FACILITY DESCRIPTION

a. Acres of land: ____

b. Facilities and Equipment:
Place an X beside all that apply.

____ Garage for vehicle processing
____ Parts store
____ On-site crushcr
_____Impervious crush pad for crusher
____ Impervious pad for outside vehicle processing
____ Spill kit/emergency equipment
____ Refrigerant (Freon) extractor
____ Parts washer
____ Other structures and major equipment:

Please list: _____
_____
_____
_____
_____

c. Services:
Place an X beside all that apply.

____ Dismantler/Recycler
____ Sell used parts
____ Sell vehicles for scrap
_____Crushing
____ Auto body/repair shop
____ Sell used cars
____ Other services:

Please list: _____
_____
_____
_____

d. Fixed Storage:
List capacity and contents of each storage container. For example, "One 6,000 gallon above ground tank containing diesel fuel." Be sure to include diesel, gasoline, waste oil, heating oil, kerosene, paint thinner and other solvents. Also describe the construction of the containers, secondary containment for each, liquid level indicators, alarms and method of corrosion protection for each container._____

e. Non-Fixed Storage:
List capacity and contents of each storage container. For example, "One 55 gallon drum for recycled oil." Be sure to indicate what each container is used for, its condition and construction and how secondary containment is provided. _____

f. Total quantity of stored materials:
The combined quantity of the materials listed above: _____ gallons

IV. OIL SPILL HISTORY

Place an X on the appropriate line and proceed accordingly.

___ There has never been a significant spill at the above named facility.

___ There have been one or more significant spills at the above named facility. Details of such spill(s) are described below.

For each spill that occurred, supply the following information:

- Type and amount of oil spilled
- Location, date and time of spill(s)
- Watercourse affected
- Description of physical damage
- Cost of damage
- Cost of clean-up
- Cause of spill
- Action taken to prevent recurrence

V. POTENTIAL SPILL VOLUMES AND RATES

Fill in all applicable blanks. Be prepared to show the engineer documentation of flow rates. Your fuel vendor and the manufacturer of your storage and dispensing equipment should be able to provide this documentation.

Potential Event	Volume Released	Spill Rate
Complete failure of a full tank*	____ gallons	instantaneous
Partial failure of a full tank*	1 to ____ gallons	gradual to instantaneous
Tank overflow**	1 to ____ gallons	up to ____ gallons per minute
Leaking during unloading***	up to ____ gallons	up to ____ gallons per minute
Pipe failure****	up to ____ gallons	up to ____ gallons per minute
Leaking pipe or valve****	several ounces to gallons	up to ____ gallons per minute
Fueling operations****	several ounces to gallons	up to ____ gallons per minute
Oil and grease	several ounces to quarts	spotting

* Volume of largest tank
** Calculate using the rate at which fuel is dispensed from the delivery truck into your tank(s).
*** Calculate using the rate at which petroleum would be withdrawn from the tank if it should have to be emptied (*e.g.*, if it was being taken out of service).
**** Calculate based on the specifications of your equipment.

VI. SPILL PREVENTION AND CONTROL

a. Spill Prevention:
Provide specific descriptions of containment facilities and practices. Include description of items such as double-walled tanks, containment berms, emergency shut-offs, drip pans, fueling procedures and spill response kits. Also, describe how and when employees are trained in proper handling procedures and spill prevention and response procedures.

b. Spill discharge and flow:
For each potential spill source, describe where petroleum would flow in the event of a spill. For example, "The 6,000 gallon diesel tank has a pre-manufactured secondary containment system capable of holding 110 percent of the total volume of the tank" and, "A spill from engine repair would be contained inside the shop building and quickly cleaned up with oil absorbents." Incorporate site map by reference (see instructions under *Appendices*).

c. Spill response:
Identify what equipment would be deployed by whom and in what situation. Also, include phone numbers for response agencies, *e.g.*, U.S. Coast Guard, fire department, spill response contractors, etc. A copy of your spill response plan may be attached as an appendix to this SPCC plan in lieu of completing this section.

d. Security
Provide a description of how all containers are protected when the facility is not in operation or unattended. Include a description of fencing, access control, gates, locks, etc. that prevent access by unauthorized individuals.

VII. FACILITY INSPECTIONS

a. Routine Inspections

Name facilities and the frequency with which they are inspected. For example, "The fuel pumps are inspected daily. The materials storage area is inspected monthly." Describe all facility containers, piping, etc. that is to be inspected. Name the person who has responsibility to implement preventative maintenance programs, oversee on-site inspections, coordinate employee training, maintain records, update the plan as necessary, and ensure that reports are submitted to the proper authorities.

b. Annual Inspections

Include a description of annual comprehensive inspections. For example, "A site inspection is also conducted annually by appropriate responsible personnel to verify that the description of potential pollutant sources are accurate, that the map reflects current site conditions, and that the controls to reduce the pollutants identified in this plan are being implemented and are adequate. This annual inspection will be conducted above and beyond the routine inspections done focusing on designated equipment and areas where potential sources are located."

VIII. RECORD KEEPING

Describe record keeping procedures. For example, "Record keeping procedures consist of maintaining all records a minimum of three years. The following items will be kept on file: current SPCC plan, internal site reviews, training records, and documentation of any spills or maintenance conducted in regards to these sites." *Maintenance Inspection*, *Employee Training*, and *Record Keeping* logs are included in this template for your use.

IX. MAINTENANCE INSPECTIONS

Maintenance Coordinator: _____. Maintenance Coordinator responsibilities include implementation of preventative maintenance programs and oversight of on-site inspections.

Use this table to record inspections:

Facility Inspected	Date of Inspection	Name of Inspector	Result Pass/Fail	Comments

X. RECORD KEEPING OF INCIDENTAL SPILLS

Record Keeper: _____. Record Keeper responsibilities include maintaining records of incidents, updating the SPCC plan as necessary and ensuring reports are submitted to the proper authorities when necessary.

Incident No.	Type of Incident	Date of Occurrence	How it was Cleaned Up



Environmental Spill Reporting

24—Hour Emergency and Incident Reporting Line
Office of Emergency Preparedness & Response

1-877-518-5608

Updated: June, 2018

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 generators and transporters 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 261, 262, 263, 264 and 265).

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.

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, generators and transporters that store hazardous waste 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).

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 or 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 or releases are reportable to the COGCC in the following circumstances:

1) the spill or release impacts or threatens to impact any waters of the state, (which include surface water, ground water and dry gullies or storm sewers leading to surface water), 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.

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

If the spill or release impacts or threatens to impact waters of the state, it must also be reported immediately to CDPHE (25-8-601 CRS).

Releases from storage tanks

Petroleum releases of 25 gallons or more (or any size that causes a sheen on nearby surface waters) from regulated aboveground and underground fuel storage tanks must be reported to the Division of Oil and Public Safety (303-318-8547) within 24 hours. If the report is made after business hours, please leave a message on the technical assistance line for the Division of Oil and Public Safety, and contact the 24 hour CDPHE Emergency and Incident Reporting Line. This includes spills from fuel dispensers.

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 Division of Oil and Public Safety 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 Division of Oil and Public Safety 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, as 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. Telephone event notifications can be made to the CDPHE Radiation Program at any time by calling 1-303-877-9757.

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

APPENDIX F – SWMP REPORT REVISION LOG

SWMP REPORT REVISION LOG

REVISION #	DATE	BY	COMMENTS

APPENDIX G – QUALIFIED STORMWATER MANAGER CERTIFICATIONS

THIS SHEET IS TO BE REPLACED WITH CERTIFICATION ONCE OBTAINED