

Stormwater Management Plan Check List and Guidance

| No. | SWMP Item/Requirement | SWMP Requirement | Attention Required | MHFDs Details | City Requirement/Notes |
|-----|-----------------------|--|-------------------------------------|---------------|--|
| | Site Description | a) The nature of the construction activity at the site. | <input checked="" type="checkbox"/> | N/A | The site proposes to install two rain gardens. One on the north side of the park and another on the south side of the proposed disturbed areas. |
| | | b) The proposed sequence for major activities. | <input checked="" type="checkbox"/> | N/A | The site will commence with the rough grading of the areas to be disturbed, then it will follow to construct the pavilion structure, the road on the south side, concrete flatwork and landscape areas. |
| | | c) Estimates of the total area of the site, and the area and location expected to be disturbed by clearing, excavation, grading, or other construction activities | <input checked="" type="checkbox"/> | N/A | The total area of the site is over 19-acres and the total area expected to be disturbed will be approximately 4.86-acres. |
| | | d) A summary of any existing data used in the development of the site construction plans or SWMP that describe the soil or existing potential for soil erosion. | <input checked="" type="checkbox"/> | N/A | The soils are Alda Loam, Tofffluents, very gravelly with 0-3 percent slopes with a slight to low rate of potential erosion. |
| | | e) A description of the existing vegetation at the site and an estimate of the percent vegetative ground cover. | <input checked="" type="checkbox"/> | N/A | The work will occur in parking areas and drives and areas with native vegetation. |
| | | f) The location and description of all potential pollution sources, including ground surface disturbing activities , vehicle fueling, storage of fertilizers or chemicals, etc. | <input checked="" type="checkbox"/> | N/A | No onsite pollution sources will be present on site other than rough surfacing and the ground disturbing operations. No vehicle fueling operations are anticipated to occur on site. |
| | | g) The location and description of any anticipated allowable sources of non-stormwater discharge at the site, e.g., uncontaminated springs, landscape irrigation return flow, construction dewatering, and concrete washout. | <input checked="" type="checkbox"/> | N/A | Construction dewatering is not anticipated at this time. Construction dewatering is not allowed to leave without a State dewatering permit and with the approval of the City's Stormwater Coordinator. Concrete waste is not allowed to leave the site and BMPs are required. |
| | | h) The name of the receiving water(s) and the size, type and location of any outfall(s). If the stormwater discharge is to a municipal separate storm sewer system, the name of that system, the location of the storm sewer discharge, and the ultimate receiving water(s). | <input checked="" type="checkbox"/> | N/A | The receiving waters is Prospect Lake for the northern portion of work and Clear creek for the southern portion. A flared end section from each rain garden will discharge flows into those two bodies of water. |
| | Site Map | | <input checked="" type="checkbox"/> | N/A | Three SWMP civil plan sheets are included for the following phases; clearing, grubbing, over lot grading, infrastructure including utilities, and vertical construction with final stabilization. |

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| | | a) Construction site boundaries; | <input checked="" type="checkbox"/> | N/A | All work considered to be part of the project including but not limited to Electric and Gas, Sanitation, Stormwater, Communication utilities etc requires BMPs to protect Stormwater quality and are considered as part of the LOC, therefore the LOC must reflect this. Often overlooked is where connections are made. |
| | | b) All areas of ground surface disturbance | <input checked="" type="checkbox"/> | | |
| | | c) Areas used for storage of building materials, equipment, soil, or waste | <input checked="" type="checkbox"/> | | Equipment is anticipated to be stored in the existing paved areas to avoid additional unnecessary disturbance. |
| | | d) Locations of dedicated asphalt or concrete batch plants | <input checked="" type="checkbox"/> | | Dedicate asphalt and/or concrete batch plants – No asphalt or concrete plants are anticipated on-site for this project. |
| | | e) locations of all structural BMPs | <input checked="" type="checkbox"/> | | See plans. |
| | | f) locations of non-structural BMPs as applicable | <input checked="" type="checkbox"/> | | See plans. |
| | | g) locations of springs, streams, wetlands and other surface waters | <input checked="" type="checkbox"/> | | The only two bodies of water that exist are Prospect Lake and Clear Creek. |
| | Stormwater Administrator | The SWMP shall identify a specific individual(s), position or title who is responsible for implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP. | <input checked="" type="checkbox"/> | N/A | <p>SWMP Admin contact information <u>Prior to the commencement of work a qualified Stormwater Manager (SWMP Administrator) will be selected and their contact information will be added below, and the City of Wheat Ridge will be contacted with this information, preferable via Email. Add the minimum contact information: Name, Company, Title with Company, Cell # and Email address. Include the individual's supporting documentation i.e. certifications and/or work experience related to the position of a Stormwater Manager.</u></p> |
| | | | <input type="checkbox"/> | | |

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| | Identify of Potential Pollutant Sources | 1) All disturbed and stored soils | ☒ | MM-2, EC-01, EC-02, EC-03, EC-04, EC-05, EC-06, EC-07, EC-08, EC-09, EC-10, EC-11, EC-12, EC-13, EC-14 Site SC-1, SC-2 | <p>Explain the BMPs being used to treat all disturbed and stored soils. Common BMPS are silt fence (SF) around perimeter, sediment basin, surface roughening, diversion ditches.</p> <p>Temporary and Permanent Seeding – <u>Seeding will be used as a permanent measure to stabilize disturbed areas at the end of construction or during long periods of inactivity in construction. Stabilization is required for areas considered to be completed and substantially complete or will be dormant for more than 14 days receive temporary stabilization within 7 days. Landscape plans will provide final detail.</u></p> <p>Mulching – <u>Some site areas will have mulch installed as an erosion control measure to protect bare soil from rainfall impact and to promote infiltration. Landscape plans will provide final detail.</u></p> <p>Stockpile Management – <u>Stockpile management will be used when soils or other erodible materials are stored at the construction site. Special attention should be given to stockpiles in close proximity to natural or manmade storm systems and close to the limits of construction.</u></p> <p>Rolled Erosion Control Products – <u>Rolled Erosion Control Products are designed and used to control erosion and promote vegetation establishment on steep slopes and channels. All 4:1 slopes or steeper must have Rolled Erosion Control Products installed.</u></p> <p>Silt Fence – <u>It is designed as a sediment barrier to intercept sheet flow runoff from disturbed areas. It is not designed to receive concentrated flow; therefore, to avoid this it must always be installed parallel to contours and not perpendicular.</u></p> <p>Sediment Control Log – <u>Sediment Control Logs will be used as check dams in the swales across the site. These should be installed every 6-inches of vertical elevation drop. They can also be installed as part of inlet protection when inlet is located in landscape areas.</u></p> <p>Perimeter Sediment Controls - <u>All sediment sources need to be accounted for no matter how small. Therefore sediment from any offsite work (utility, potholing, surface disturbance etc. needs to be taken in consideration when determining placement and type of BMP.</u></p> |

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| | | 2) Vehicle tracking of sediments | <input checked="" type="checkbox"/> | SM-03 SM-04 SM-06 SM-07 | <p>Vehicle Tracking Controls</p> <p><i>a. The proposed VTC will be evaluated on its effectiveness when dealing with the specific site conditions and nature of this project. If the proposed VTC is not adequate for the specific site conditions and/or activity i.e. (high frequency of traffic) changes <input type="checkbox"/> will be made to the VTC, such as, but not limited to, addition of a wheel wash, cattle guard, increase the length of the VTC, increase the inspection frequency and/or maintenance of the VTC, and the use of an inspection/maintenance log (form) to keep for record keeping.</i></p> <p><i>b. Vehicles and equipment are not allowed to go beyond the designated area of disturbance; site layout may require onsite access controls. Site access will be limited to only entrances with VTC. This will be accomplished by the using either Silt Fencing or Construction Fencing, if other give details.</i></p> <p><i>c. Street sweeping will be done when directed by the City of Wheat Ridge and immediately whenever excessive tracking occurs offsite.</i></p> <p><i>d. When site conditions are wet and/or muddy all non-essential vehicles and equipment will be limited to only areas that are impervious, deliveries will be dropped off at the stabilized staging area (SSA). The City has a zero tolerance of tracking off-site and will be expected to make maximum extent practicable (MEP) to prevent tracking. Offsite means any City Street, both inside the development and outside.</i></p> <p><i>NO washing of hard surfaces with water is allowed, unless full containment of the wash water can be captured and disposed of properly, no wash water will leave the site.</i></p> |
| | | 3) Management of contaminated soils | <input checked="" type="checkbox"/> | | <p>Management of contaminated soils</p> <p><i>No contaminated soils are expected to be present on this site.</i></p> |
| | | 4) Loading and Unloading Operations | <input checked="" type="checkbox"/> | | <p>Loading and Unloading Operations</p> <p><i>Majority of deliverables are expected to be delivered to the SSA. Handling Areas that generate waste or residual pollutants require either pollutants fully cleaned up immediately or covered. Spill kits are to be located in proximity of areas of loading and unloading operations with potential pollutants.</i></p> |

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| | | 5) Outdoor storage activities (building materials, fertilizers, chemicals, etc.) | <input type="checkbox"/> | S-01 S-02 S-05 | Outdoor storage activities <i>All chemicals will be protected from the elements. However, no chemicals are anticipated in this project.</i> |
| | | 6) Vehicle and Equipment Maintenance and Fueling | <input checked="" type="checkbox"/> | S-5 S-07 SM-06 MM-3 | Vehicle and Equipment Maintenance and Fueling <i>All vehicles and equipment will be inspected during the SWMP inspections; any leaking vehicles will be documented with an explanation of cleanup action and what measures were taken to prevent future discharges from leaking vehicles and equipment.</i> <i>It is unknown at this time the exact location where fueling operations will be done.</i> |
| | | 7) Significant dust or particulate generating processes | | EC-14 | Fugitive Dust and Wind Erosion Controls - Fugitive Dust and Wind Erosion Controls will be used to mitigate erosion caused by wind. Inactive areas will be surfaced roughened to reduce wind erosion. During dry and windy conditions watering trucks will be used to water exposed, un-vegetated areas with potable water to control fugitive dust and wind erosion. An effort shall be made to use only the amount of potable water required for these operations so as not to create muddy conditions, runoff, and/or noticeable erosion. <i>If excessive dust and wind erosion occurs the application of bonded fiber matrix to disturbed areas will be applied as needed.</i> |
| | | 8) Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc | | | <i>This project does not anticipate any activities that involve the use of fertilizers, pesticides, detergents, fuels, etc.</i> |
| | | 9) On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.) | | MM-3 | On-site waste management practices The SWMP will clearly specify BMPs including these good housekeeping practices: <ul style="list-style-type: none"> • Provide approved waste management containers • Establish proper building material staging areas • Designate paint and concrete washout areas |
| | | 10) Concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment | | MM-3 | Concrete and Equipment Washout <i>Concrete washout areas (CWA) shall be placed at least 100 feet from drainage conveyances. If a dug concrete washout area is not feasible a mobile type i.e. "eco pan" unit may be used instead with prior approval by the City's Stormwater Coordinator. All cleaning operations involving concrete waste including but not limited to Concrete truck/equipment washing, including chutes, fixtures and equipment will be done in an approved CWA.</i> |

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| | | 11) Dedicated asphalt and concrete batch plants | | SM-08 SM-11 | Dedicated asphalt and concrete batch plants <i>No dedicated asphalt and concrete plants are anticipated at this site.</i> |
| | | 12) Non-industrial waste sources such as worker trash and portable toilets; | | MM-3 | Non-industrial waste sources <i>All trash needs to be disposed of in an approved trash container. All portable toilets will be secured down and placed on a flat surface area. They will be at a minimum of 50 feet away from drainage ways and surface waters.</i> |
| | | 13) Other areas or procedures where potential spills can occur | | | |
| | Phased BMP Implementation | The SWMP shall clearly describe the relationship between the phases of construction, and the implementation and maintenance of both structural and non-structural stormwater management controls. The SWMP must identify the stormwater management controls to be implemented during the project phases, which can include, but are not limited to, clearing and grubbing; road construction; utility and infrastructure installation; vertical construction; final grading; and final stabilization. | | SM-01 | Phasing and Sequencing - Adequate sequencing is required to accurately evaluate the proposed BMPs. At a minimum construction phasing will consist of, but not limited to, grading operations, infrastructure (utility, roads etc.), vertical construction and final stabilization. |
| | Materials Handling and Spill Prevention | The SWMP shall clearly describe and locate all practices implemented at the site to minimize impacts from procedures or significant materials that could contribute pollutants to runoff. Such procedures or significant materials could include: exposed storage of building materials; paints and solvents; fertilizers or chemicals; waste material; and equipment maintenance or fueling procedures. Areas or procedures where potential spills can occur must have spill prevention and response procedures identified in the SWMP | | S-01 S-02 SM-06 S-07 | Materials Handling and Spill Prevention Describe how Spill Prevention and Response will be accomplished, at a minimum the following needs to be addressed: <ul style="list-style-type: none"> • State locations of where all chemicals will be stored and show on civil drawings • Detail of how the chemicals will be protected from the elements • State that a Spill kit(s) will be in proximity to all areas storing chemicals, including fuel. • List of the spill kit items (i.e. rock socks, absorbent material, disposal container, shovel etc.) • Reference the reporting requirements of 40 CFR 110, 40 CFR 117 or 40 CFR 302. • List the following contact phone numbers: CO Environmental Release and Incident Reporting Line 1(877) 518 5608 National Reporting Center 1(800) 424 8802 City of Wheat Ridge 911 CDPHE Webpage |
| | Dewatering Operations | | | | Dewatering <i>The City considers pumping of surface water that infiltrates areas of excavation as dewatering and requires all BMPs in place prior to discharging offsite. Furthermore the City</i> |

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| | | | | | <i>requires to be notified before any water is discharged into the City's municipal separate stormwater sewer system (MS4).</i> |
| | Final Stabilization | | | | <p>Final Stabilization Describe the specifics of how the State stabilization requirement will be achieved. i.e. building, pavement, landscaping etc. Also state that any areas achieving stabilization by vegetation requires uniform coverage of %70 and the permit is active and that all SWMP requirements, which includes inspections are still required</p> <p>Final stabilization by seeding – If a Certificate of Occupancy is requested before the site meets the States final stabilization of 70% vegetation coverage the City requires that all areas seeded and not meeting the States final stabilization criteria be protected by erosion control blankets (ECBs) regardless of the grade.</p> |
| | Inactivation Notice | | | | |
| | Details for BMPs | | | | <p>All proposed best management practices (BMPs) stated within the narrative need to have UDFCD's construction details with SOP narratives. If a proposed BMP does not have a UDFCDs detail, then use manufacturer's details. The City of Wheat Ridge has adopted all Urban Drainage Flood Control Districts BMP details/SOPs. These details can be found on their website.</p> <p>http://www.udfcd.org/downloads/down_critmanual_volIII.htm</p> |
| | SWMP Implementation | The SWMP shall be implemented prior to commencement of construction activities. The plan shall be updated as appropriate (see paragraph c, below), below). SWMP provisions shall be implemented until expiration or inactivation of permit coverage. | | | <p>SWMP Implementation</p> <p><i>The SWMP shall be implemented prior to commencement of construction activities. The plan shall be updated as appropriate. SWMP provisions shall be implemented until expiration or inactivation of permit coverage.</i></p> |
| | SWMP Retention | A copy of the SWMP must be retained on site unless another location, specified by the permittee, is approved by the Division. | | | <i>A copy of the SWMP must be retained on site unless another location, specified by the permittee, is approved by the Division.</i> |

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| | SWMP Review/Changes | | | | <p><u>SWMP Review and Changes</u></p> <p><i><u>The SWMP is considered a living or dynamic document. The SWMP needs to be updated whenever site conditions or BMPs change. When site changes are observed the SWMP needs to be changed within 72 hours. When BMPS are no longer needed or are removed the SWMP changes will be done prior to changes in the site conditions.</u></i></p> |
| | Site Inspection | The permittee shall keep a record of inspections. Inspection reports must identify any incidents of non-compliance with the terms and conditions of this permit. Inspection records must be retained for three years from expiration or inactivation of permit coverage. | | | <p><u>Site Inspection</u></p> <p>State which of the following Site Inspection frequency will be done:</p> <p><i><u>At least one inspection every 7 calendar days</u></i></p> <p>Or</p> <p><i><u>At least one inspection every 14 calendar days, plus post-storm event inspections conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion.</u></i></p> <p>(Site Inspection continued)</p> <p><i><u>Inspection Reports must be kept with the SWMP and made available when the City request a copy.</u></i></p> <p><i><u>The required minimum inspection schedules do not reduce or eliminate the permittee's responsibility to implement and maintain BMPs in good and effective operational condition, and in accordance with the SWMP, which could require more frequent inspections.</u></i></p> |

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| | Inspection Report | <p>Report form must document at a minimum the following:</p> <ul style="list-style-type: none"> • The inspection date; • Name(s) and title(s) of personnel conducting the inspection; • Weather conditions at the time of the inspection; • Phase of construction at the time of the inspection; • Estimate acreage of disturbance at the time of the inspection; • Location(s) of discharges of sediment or other pollutants from the site; • Location(s) of control measures needing maintenance; • Location(s) and identification of inadequate control measures; • Location(s) and identification of additional control measures are needed that were not in place at the time of inspection; • Description of the minimum inspection frequency and any deviations from the minimum inspection schedule; • After adequate corrective action (s) and maintenance have been taken, or where report does not identify any incidents requiring corrective action or maintenance, the report shall contain the following statement: <p>“I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit”</p> | | | An Inspection report form needs to meet the CDPHE permit documentation requirement and accompany the SWMP for review by the City. |
| | BMP Maintenance | <p><u>A specific timeline for implementing maintenance procedures is not included in this permit because BMP maintenance is <i>expected</i> to be proactive, not responsive. Observations resulting in BMP maintenance activities can be made during a site inspection, or during general observations of site conditions.</u></p> <p>Where BMPs have failed, resulting in noncompliance with Part I.D.2, they must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants.</p> | | | <p>BMP Maintenance</p> <p>All proposed BMPs within the SWMP narrative require to reference the corresponding UDFCD detail and SOP narrative for proper maintenance guidelines.</p> <p><u><i>The State CDPHE permit does not have a specific timeline for implementing maintenance procedures and is not included in this permit because BMP maintenance is expected to be proactive, not responsive. Observations resulting in BMP maintenance activities can be made during a site inspection, or during general observations of site conditions.</i></u></p> <p><u><i>The City requires action to be taken immediately when notified by the City of non-compliance. The City requires that any BMP that is ripped, torn, or showing obvious wear to be replaced immediately in most cases.</i></u></p> |
| | Notification of Project Start | | | | <p>Notification (s)</p> <p><u><i>Prior to work commencing the City of Wheat Ridge Public Works Department will be notified of the date of work commencing, at the discretion of the City’s Stormwater Coordinator a preconstruction meeting may be required.</i></u></p> |

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| | Snow and Ice Management | | | Snow and Ice Management (S-10) | <p>Snow and Ice Management</p> <p><i><u>Snow and ice management operations will be done in a manner to prevent damage to temporary BMPs. Locations of snow stockpiles will be located as to limited excessive erosion caused by snow melt.</u></i></p> |
| | <p>ix. For Applicable Construction Activities that Overlap Multiple Permit Areas when a written agreement is in place with a co-regulating MS4 permittee: (A) Control measure requirements may be imposed on the operator in accordance with the requirements of a co-regulating MS4 permittee pursuant to the written agreement.</p> | | | | <p>Add section Overlap Multiple Permit Areas - stating this requirement and its documentation requirements</p> |