

STANDARD OPERATING PROCEDURES (SOP's) FOR THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) UPDES PERMIT #UTR090006

January 2025

Contents

FARMINGTON CITY SOPS4
S-1 CURRENT STANDARD OPERATING PROCEDURE VERSION
S-2 SOP VERSION HISTORY
S-3 PURPOSE AND APPLICABILITY
SPILL INCIDENT
SI-1 RESPONSE & REPORTING DECISION MATRIX
SI-2 RESPONSE & REPORTING CONTACT LIST8
SI-3 DISCHARGE/SPILL INSPECTION REPORT9
ILLICIT DISCHARGE DETECTION & ELIMINATION
IDDE-1 OUTFALL INSPECTIONS
IDDE-2 MANHOLE INSPECTIONS12
IDDE-3 TRACING AN ILLICIT DISCHARGE
IDDE-4 ELIMINATING AN ILLICIT DISCHARGE
INSPECTION & ENFORCEMENT16
IE-1 INSPECTING CONSTRUCTION SITES
IE-2 ENFORCING CONSTRUCTION SITE REQUIREMENTS
IE-3 FLOW CHART FOR ENFORCEMENT FOR CONSTRUCTION SITES25
IE-4 INSPECTING LONG-TERM CONTROLS (PRIVATE)
IE-5 INSPECTING LONG-TERM CONTROLS (PUBLIC)
IE-6 ENFORCING LONG-TERM CONTROLS
IE-7 HIGH PRIORITY SITE MONTHLY VISUAL INSPECTION
IE-8 HIGH PRIORITY SITE SEMI-ANNUAL VISUAL INSPECTION
IE-9 HIGH PRIORITY SITE ANNUAL VISUAL OBSERVATION OF STORMWATER DISCHARGES
GENERAL
G-1 DEBRIS DISPOSAL
G-2 PAINTING
G-3 TRANSPORTING SATURATED SOILS
G-4 TRANSPORTING UNSATURATED SOILS
G-5 VEHICLE & EQUIPMENT STORAGE
G-6 VEHICLE & EQUIPMENT WASHING
G-7 WASTE RECEPTACLES
G-8 CHEMICAL MANAGEMENT (INCLUDING FERTILIZERS, HERBICIDES, & PESTICIDES)

G-9 PRESSURE WASHING BUILDING EXTERIORS
PARKS & RECREATION
PR-1 CHEMICAL APPLICATION: PESTICIDES, HERBICIDES, & FERTILIZERS
PR-2 MOWING & TRIMMING
PR-3 ON-SITE FUELING OF MOWERS AND TRIMMERS
PR-4 PLANTING VEGETATION (STARTERS)
PR-5 PLANTING VEGETATION (SEEDS)
PR-6 CITY SPONSORED FESTIVALS & PARADES
PR-7 PLANNED POOL DRAINING PROCEDURE
PR-8 EMERGENCY POOL DRAINING PROCEDURE
STORM DRAIN MAINTENANCE
SDM-1 ANNUAL STORM DRAIN INSPECTION, MAINTENANCE, AND CLEANING
SDM-2 INSPECTION MAP
SDM-3 INSPECTION/CLEANING/MAINTENANCE SCHEDULE
SDM-4 VISUAL CATCH BASIN, PIPE, & MANHOLE INSPECTION PROCEDURE
SDM-5 VIDEO STORM DRAIN PIPE INSPECTION PROCEDURE
SDM-6 DETENTION/RETENTION BASIN INSPECTION PROCEDURE
SDM-7 INSPECTION REPORT
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65
SDM-7 INSPECTION REPORT
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67 ST-4 OVERLAYS & PATCHING 68
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67 ST-4 OVERLAYS & PATCHING 69
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67 ST-4 OVERLAYS & PATCHING 68 ST-5 CONCRETE WORK 69 ST-6 ASPHALT PAVING 70
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67 ST-4 OVERLAYS & PATCHING 68 ST-5 CONCRETE WORK 69 ST-6 ASPHALT PAVING 70 ST-7 SNOW REMOVAL & DE-ICING 71
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION. 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES. 61 SD-3 CLEANING DETENTION PONDS. 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67 ST-4 OVERLAYS & PATCHING 68 ST-5 CONCRETE WORK 69 ST-6 ASPHALT PAVING 70 ST-7 SNOW REMOVAL & DE-ICING 71 ST-8 STREET SWEEPING. 72
SDM-7 INSPECTION REPORT 58 STORM DRAIN 60 SD-1 PLACING INLET PROTECTION 60 SD-2 CLEANING CATCH BASINS & DRAINAGE PIPES 61 SD-3 CLEANING DETENTION PONDS 62 SD-4 CREEK MANAGEMENT 63 STREETS 65 ST-1 CHIP SEAL 65 ST-2 SLURRY SEAL 66 ST-3 CRACK SEAL 67 ST-4 OVERLAYS & PATCHING 68 ST-5 CONCRETE WORK 69 ST-7 SNOW REMOVAL & DE-ICING 71 ST-8 STREET SWEEPING 72 ST-9 CURB PAINTING 73

ST-11 SECONDARY ROAD MAINTENANCE
ST-12 MATERIAL STORAGE76
CULINARY WATER
W-1 PLANNED WATERLINE EXCAVATION REPAIR/REPLACEMENT
W-2 EMERGENCY WATERLINE EXCAVATION REPAIR/REPLACEMENT
W-3 WATERLINE FLUSHING FOR ROUTINE MAINTENANCE
W-4 WATERLINE FLUSHING AFTER SYSTEM DISINFECTION – DISCHARGE TO STORM DRAIN
W-5 WATERLINE FLUSHING AFTER SYSTEM DISINFECTION – DISCHARGE TO OFF-SITE LOCATION
W-6 CHEMICAL HANDLING/TRANSPORTING AND SPILL RESPONSE
PLANNING/ DEVELOPMENT
PL-1 METES AND BOUNDS STORM WATER REVIEW/CHECKLIST
PL-2 PROJECT MASTER PLAN (PMP) / PLANNED UNIT DEVELOPMENT (PUD) / CONSERVATION SUBDIVISION STORM WATER REVIEW/CHECKLIST
PL-3 SITE PLAN STORM WATER REVIEW/CHECKLIST
PL-4 SCHEMATIC STORM WATER REVIEW/CHECKLIST
PL-5 PRELIMINARY PLAT STORM WATER REVIEW/CHECKLIST90
PL-6 FINAL PLAT APPROVAL STORM WATER REVIEW/CHECKLIST92
PL-7 PRE-CONSTRUCTION MEETINGS
PL-8 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DOCUMENTATION
PL-9 LAND DISTURBANCE PERMITTING CITY SWPPP AND STATE SWPPP98
PL-10 FLOODPLAIN DEVELOPMENT PERMIT

FARMINGTON CITY SOPs

S-1 Current Standard Operating Procedure Version

This is a Controlled Document. It is the responsibility of all users of this SOP to ensure that the correct version is being used.

Version	2.0
Effective Date	7 th January 2025
Review Date	
Author & Position	Brent White, Environmental Specialist
Author Signature	
Approver & Position	Chad Boshell, City Engineer/Assistant City Manager
Approver Signature	
Date Signed	

FARMINGTON CITY SOPs

S-2 SOP Version History

SOP Version History				
Version	Date Approved	Author	Approver	Revision Notes:
1.0	24, April 2023	Brent White	Chad Boshell	New Standard Operating Procedures
2.0	7, January 2025	Brent White	Chad Boshell	Update of inspection methods in response to new state law

FARMINGTON CITY SOPs

S-3 Purpose and Applicability

The Purpose of these Standard Operating Procedure (SOP) is to establish operating instructions and inspection criteria for normal day to day activities performed by Farmington City Employees. This is not meant to be an allencompassing document of day to day operations and it recognizes that all situations are not equal and will warrant different methods of operation as situations arise. The Standard Operating Procedures (SOPs) outlined in this document are best management practices and will be adhered to by all city employees whenever possible.

Spill Incident

SI-1 Response & Reporting Decision Matrix

Complete the following steps when a spill in encountered:

- 1. Evaluate the spill Does this incident pose an immediate threat to life or health?
 - A. if **Yes** Call 911 (give a description of the material, amount, and extent)
 - I. Then: Move to the next step.
 - B. if **No** Move to the next step
- 2. <u>Did the spill make its way into the storm drain system?</u>
 - A. if **Yes** Determine how much of the storm drain system was affected.
 - I. Then: Move to the next step
 - B. if **No** Report the spill according to the reporting list below and on the back of this page. Starting with FCSW.
 - I. Then: Move to the next step
- 3. Did the contaminate make it to waters of the State of Utah (i.e. Canal, Creek, Pond, or Lake)?
 - A. if **Yes** Report that the spill has reached the waters of the state to the appropriate entities according to the reporting list below. Starting with FCSW and DC.
 - I. Then: Move to the next step.
 - B. if **No** Move to the next step.
- 4. Are you able to safely contain the spill with the tools and /or materials you have on hand?
 - A. if Yes Contain the spill and secure the area
 - I. Then: Report the spill according to the reporting list, starting with FCSW and DC.
 - II. Then: Take pictures and send them to the storm water official
 - III. Describe the incident in the spill log.
 - B. if **No** Move to the next step.
- 5. <u>Did the spill occur during regular working hours?</u>
 - A. if **Yes** Report the spill according to the reporting list below
 - I. Then: Take pictures and send them to the storm water official.
 - II. Then: Describe the incident in the spill log.
 - B. if **No** Call 911 (give description of material, amount, and extent)
 - I. Then: Take pictures and send them to the storm water official.
 - II. Then: Describe the incident in the spill log
 - III. Then: On the next working day report according to reporting list.

Follow SOP: Response & Reporting Contact List (SI-2)

Spill Incident

SI-2 Response & Reporting Contact List

Phone	Contact	List:

Web Contact List:		
Utah Hazmat Response Officer	801-538-3745	
Utah Division of Solid and Hazardous Waste	801-538-6170	
National Response Center (NRC)	1-800-424-8802	
Utah Department of Environmental Quality (UDEQ)	801-536-4123	
Davis County Environmental Health (DC)	801-525-5100	
Farmington City Storm Water (FCSW)	801-929-9286	
Farmington City Fire Chief	801-939-9260	
Emergency	911	

Utah Dept. of Environmental Quality (UDEQ)

https://deq.utah.gov/general/report-an-incident

Pollutant Description - Report to:

Pollutant releases to waters of the state (surface or ground water):	FCSW, DC, UDEQ, NRC
Hydrocarbons (fuel, oil), release of 25 gallons or more:	FCSW, DC, UDEQ
Radiological Materials, any spill or release:	FCSW, DC, UDEQ
Extremely Hazardous chemicals, 2.2 lb. or more: (e.g. Cyanides, Arsenic, Chlorine)	FCSW, DC, UDEQ
Other Hazardous chemicals, 220 lb. or more:	FCSW, DC, UDEQ
Underground Storage Tank, any leaking or release:	FCSW, DC, UDEQ

Other spills, particularly those under the above limits and/or contained and cleaned up need to be reported to FCSW.

Spill Incident

SI-3 Discharge/Spill Inspection Report

Farmington City Spill Log/ Incident Report

Instructions: Please fill out the following Spill Log/ Incident Report. Please use as much detail as possible when describing the incident and do not leave any spaces blank. If you do not know or if it is not applicable please indicate that in the space provided.

Date:	Your Name:	
Address of Release/Spill:		
How were you notified of the sp	ill?	_ Were you able to contain the Spill?
What type of material was spille	d/released?	
Quantity of the spilled material (specify units):	
Was there damage to any person	n or property?	(if yes please describe)
List the individuals involved in th	e clean-up:	
Where there any corrective action	ons taken to prevent fur	ther contamination?
(if yes please explain)		
Comments and other notes:		
Your Signature:		

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IDDE-1 Outfall Inspections

- 1. Preparation:
 - a. Make sure you have the following supplies for the field work:
 - i. Camera, flashlight, 1st aid kit, nitrile gloves, waterproof boots or waders, tape measure, phone or 2-way radio, watch (with stopwatch), GPS, and
 - ii. Map(s) showing drainage system and outfalls in the area you plan to screen
 - iii. pH and ammonia testers, thermometer, clear sample bottle(s), ziplock bags, and caulk or plumbers' putty, and
 - Physical or digital copies of *Field Sheet* (such as Appendix D-3 of the Center Watershed Protection's Illicit Discharge Detection and Elimination Guidance Manual)
 - b. Notify private property owners whose property you'll need to be crossing.
 - c. Inform an individual of your intent, location you're traveling, and time you will return.
- 2. Process:
 - a. Upon arrival at each outfall/discharge, take photo(s), and gather information to complete *Field Sheet*
 - b. Use the data observed, collected and recorded on Field Sheet and guidelines on Field Sheet to characterize the outfall/discharge as an "unlikely," "potential," "suspect," or "obvious" point of illicit discharge.
 - Consider these as indicators: pH≤6 or pH >8, severity of 2; pH≤5 or pH >9, severity of 3; Ammonia ≥1.0, severity of 3.
 - ii. If outfall is non-flowing and characterized as "obvious," "suspect," or "potential," place a caulk dam and schedule a return visit to attempt to collect a sample.
 - iii. If characterized as "obvious," follow SOP: *Response & Reporting Decision Matrix* (*SI-1*) and SOP: *Response & Reporting Contact List* (*SI-2*).
 - iv. If characterized as "obvious" then initiate SOP: *Tracing an Illicit Discharge (IDDE-3)* and SOP: *Eliminating an Illicit Discharge IDDE (IDDE-4)*.
 - v. If outfall is flowing and characterized as suspect, initiate SOP: *Tracing an Illicit Discharge (IDDE-3)* and SOP: *Eliminating an Illicit Discharge IDDE (IDDE-4)* within two working days.
- 3. Clean-up:
 - a. Place used gloves and other waste in bag and carry-out for disposal into waste bin.
 - b. If any hazardous waste is produced (e.g. used detergent/surfactant reagent), carry out and arrange for delivery to a hazardous waste facility.

Contact: Veolia Environmental Services 709 N. Taylor Way Suite 1 North Salt Lake, UT 84054, US (801) 232-0976

- 4. Documentation:
 - a. Record any further actions taken for potential, suspect, and obvious illicit discharges.

IDDE-2 Manhole Inspections

- 1. Preparation:
 - a. Make sure you have the following supplies for the field work:
 - i. Camera, flashlight, 1st aid kit, nitrile gloves, waterproof boots or waders, tape measure, phone or 2-way radio, watch (with stopwatch), GPS, and
 - ii. Map(s) showing drainage system and outfalls in the area you plan to screen
 - iii. pH and ammonia testers, thermometer, clear sample bottle(s), ziplock bags, and caulk or plumbers' putty, and
 - Physical or digital copies of *Field Sheet* (such as Appendix D-3 of the Center Watershed Protection's Illicit Discharge Detection and Elimination Guidance Manual)
 - b. Notify private property owners whose property you'll need to be crossing.
 - c. Inform an individual (preferably your manager) of your intent, location you're traveling, and time you will return.
- 2. Process:
 - a. Upon arrival at each manhole, take photo(s), and gather information to complete *Field Sheet*
 - b. Use the data observed, collected and recorded on Field Sheet and guidelines on Field Sheet to characterize the outfall/discharge as an "unlikely," "potential," "suspect," or "obvious" point of illicit discharge.
 - Consider these as indicators: pH≤6 or pH >8, severity of 2; pH≤5 or pH >9, severity of 3; Ammonia ≥1.0, severity of 3.
 - ii. If outfall is non-flowing and characterized as "obvious," "suspect," or "potential," place a caulk dam and schedule a return visit to attempt to collect a sample.
 - iii. If characterized as "obvious," follow SOP: *Response & Reporting Decision Matrix* (*SI-1*) and SOP: *Response & Reporting Contact List (SI-2*).
 - iv. If characterized as "obvious" then initiate SOP: *Tracing an Illicit Discharge (IDDE-3)* and SOP: *Eliminating an Illicit Discharge IDDE (IDDE-4)*.
 - v. If outfall is flowing and characterized as suspect, initiate SOP: *Tracing an Illicit Discharge (IDDE-3)* and SOP: *Eliminating an Illicit Discharge IDDE (IDDE-4)* within two working days.
- 3. Clean-up:
 - a. Place used gloves and other waste in bag and carry-out for disposal into waste bin.
 - b. If any hazardous waste is produced (e.g. used detergent/surfactant reagent), carry out and arrange for delivery to a hazardous waste facility.

Contact: Veolia Environmental Services 709 N. Taylor Way Suite 1 North Salt Lake, UT 84054, US (801) 232-0976

- 4. Documentation:
 - a. Record any further actions taken for potential, suspect, and obvious illicit discharges.

IDDE-3 Tracing an Illicit Discharge

- 1. Preparation:
 - a. Review map(s) showing drainage system and area contributing to location of the discharge.
 - b. Bring traffic –control devices and safety equipment for entering manholes and inlet boxes.
 - c. Bring water-quality screening equipment and sample containers.
- 2. Process:
 - a. Travel around the streets/adjacent properties of the area contributing to the discharge point and look for anything that may help reveal the source of the discharge (if the source is found, skip to step c.)
 - b. From the point of discharge, check the nearest up-stream manhole or inlet box for a similar discharge.
 - i. Put on safety equipment and set up traffic controls according to MUTCD, part 6
 - ii. Remove manhole or box cover (if necessary). Make an observation of any flow present.
 - iii. Use water-quality screening equipment and sample containers, if needed, to determine whether the discharge is similar in nature to the discharge present below.
 - iv. Progress up the system, repeating the previous step until the source of the discharge is found or the segment of the drainage system where the discharge enters the system is isolated.
 - v. If the source is not found, yet the segment of the drainage system where the discharge enters is isolated, make arrangements to get a video with distance measurements of that segment of the drainage system to trace the source.
 - vi. If further investigation is needed, consider using smoke tests, dye testing, sampling for additional water quality parameters, and requesting assistance from the Davis County Health Department.
 - c. Determine whether the source is an illicit discharge (review list of allowed non-storm discharges in city ordinance Title 16, Chapter 4) and if so, report according to SOP: *Response & Reporting Decision Matrix (SI-1)* and SOP: *Response & Reporting Contact List (SI-2)*.
 - d. Determine whether If the source of the discharge is likely to need a separate UPDES discharge permit. If so, report to the Utah Division of Water Quality (SOP: *Response & Reporting Contact List (SI-2)*).
 - i. Note: Most likely discharges in Bountiful that may need a separate UPDES permit are from: Construction Activities and Construction Dewatering.
- 3. Documentation:
 - a. Add relevant information to Discharge/Spill Inspection Report.
 - Note any discrepancies in the storm drain system maps from what is found in the field. Make sure that the maps get updated to correctly reflect actual conditions.

IDDE-4 Eliminating an Illicit Discharge

- 1. Preparation:
 - a. Make sure reporting has been done according to SOP: *Response & Reporting Decision Matrix (SI-1)* and SOP: *Response & Reporting Contact List (SI-2)*.
 - b. Begin completing report following SOP: *Discharge/Spill Inspection Report (SI-3)*.
- 2. Process:
 - a. If the discharge is due to a sewer cross connection:
 - i. Determine the responsible party for the discharge
 - ii. Issue a Notice of Violation to the violator requiring the problem to be corrected within two weeks to avoid further enforcement action.
 - b. For other discharges contact the Davis County Health Department Environmental Division for removing the discharge and bringing enforcement action to violator
 - i. Assist county personnel as needed in determining the responsible party, providing utility information, and providing other screening or investigation information gathered regarding the discharge.
 - c. For illicit discharges traced to construction activity:
 - i. Ensure that the activity is permitted correctly at City and State level;
 - ii. Issue a Notice of Violation to the violator requiring the problem to be corrected within two weeks to avoid further enforcement action.
 - iii. If discharge is severe, negligible, or impacting surface/ground waters an immediate fine against the Storm Water Bond is applicable.
 - d. Offer technical assistance to the violator; help them understand how to go about correcting the problem.
 - e. Follow-up as needed to ensure that the discharge has been removed. If violator fails to remove the discharge bring criminal enforcement action
 - f. If unable to immediately contain and/or cease the discharge, record the circumstances and submit a written rationale to the Division of Water Quality (see 2021 MS4 permit 4.2.3.6)
- 3. Clean-up:
 - Clean catch basin, storm drain line, storm water conveyance channel, or initiate spill response with Davis County Health Department & Utah Department of Environmental Quality.
 - b. Record efforts, material removed, infrastructure cleaned, and costs accrued.
 - i. Send information as report to responsible party and include in documentation.
- 4. Documentation:
 - a. Complete SOP: *Discharge/Spill Inspection Report (SI-3)* and/or obtain a copy of the discharge report from the Davis County Health Department Environmental Division
 - b. If unable to immediately contain and cease the discharge, write a rationale describing the circumstances and submit it to the Utah Division of Water Quality (e.g. for failing septic system).

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IE-1 Inspecting Construction Sites

Introduction

From **Utah Code 19-5-108.3**:

"A municipal system shall conduct an oversight inspection¹ through an electronic site inspection². A municipal system may conduct an on-site inspection if the municipal system has a documented reason for justifying an on-site oversight inspection."

To differentiate between the two types of oversight inspections, the terms "onsite oversight" and "electronic oversight" inspection are used.

- "Onsite oversight inspection" is an inspection in which MS4 staff physically visit a construction site to perform an inspection as has been done historically.
- "Electronic oversight inspection" is an offsite inspection of the operator's submitted electronic site inspection report.

Each of these types of oversight inspections will be described in the *During Construction* portion within the *Process* section of this SOP.

1. Purpose:

The purpose of this SOP is to describe how all MS4s will conduct inspections for construction sites that require storm water pollution control measures. For purposes of this SOP, "operator" means the person responsible for the Storm Water Pollution Prevention Plan (SWPPP) implementation on an applicable construction site.

2. Responsibilities:

Each MS4's storm water staff are responsible for implementing the requirements and may not defer from this SOP. The operator is responsible for abiding by all requirements of the UPDES Storm Water General Permit or Common Plan Permits for Construction Activities and the MS4 is responsible for oversight.

- The position responsible for oversight inspections is the Farmington City's Storm Water Official.
- The position(s) who has authority to implement enforcement procedures is Farmington City's Storm Water Official as well as the Division of Water Quality (DWQ).

This SOP is to be followed and updated according to State and municipal requirements.

¹ "Oversight inspection" means a construction site inspection performed by the municipal system to assess compliance with the permit. (Utah Code 19-5-108.3(1)(g))

² "Electronic site inspection" means geo-located and time-stamped photos taken, evaluated, and submitted electronically by the applicant to the municipal system. (Utah Code 19-5-108.3(1)(e))

3. MS4 Permit Requirements:

- 1. Oversight Inspection
 - a. Required to be completed by the MS4 (Farmington City) on any construction site that is greater than or equal to one acre or is part of a common plan of development or sale which collectively disturbs land greater than or equal to one acre.
 - b. MS4 must inspect all phases of construction, including prior to land disturbance, during active construction, and following active construction.
 - c. Oversight inspections are required to be completed monthly for non-priority construction sites and biweekly for priority construction sites.
- 2. Qualified Personnel
 - a. The oversight inspection must be performed by a "qualified person" as described in the DWQ MS4 Permit.
 - b. Anyone having a job duty related to implementing the construction storm water program must receive annual training. New hires must be trained within 60 days of hire.
- 3. Record Retention
 - a. Farmington City must maintain records for at least five years of all applicable construction project documents which could include:
 - i. Site plan reviews
 - ii. SWPPPs
 - iii. Inspections
 - iv. Enforcement Actions (notices of violation, stop work orders)

4. Process:

- 1. Pre-construction
 - a. The Farmington City will perform a pre-construction SWPPP review and meeting which at minimum will include:
 - i. A review of the site design
 - ii. Planned operations at the construction site
 - iii. Planned Best Management Practice(s) (BMPs) during the construction phase
 - iv. Planned long-term storm water run-off BMPs
 - v. Documentation:
 - 1. SWPPP Review Checklist: Document the SWPPP Review Checklist through Farmington City's records.
 - 2. Pre-construction Meeting: Document the meeting in Farmington City's records.
 - b. The MS4 will determine whether the construction site will be identified as priority and receive bi-weekly MS4 oversight inspections.
 - c. The MS4 must provide the operator the procedure for notifying the MS4 of their completion of active construction.
 - d. The MS4 will perform a pre-construction electronic oversight inspection or onsite oversight inspection with the operator(s).

- i. This pre-construction inspection must occur before land disturbance and will verify that the operator has placed all site-specific construction BMPs prescribed by the SWPPP.
- ii. Documentation:
 - 1. Pre-construction inspection: Document the inspection through Farmington City's records.
- e. The operator will submit a Notice of Intent (NOI) through the NeT NPDES eReporting Tool online (NeT) *before* earth disturbing activities.
- 2. During Construction
 - a. Electronic Oversight Inspection
 - i. Farmington City will perform their required electronic oversight inspections through access to the Operator's SWPPP and electronic site inspection(s).
 - 1. The operator's report must use geo-located and time-stamped photos of all BMPs implemented at the construction site.
 - 2. All photos must be sufficient to depict that the BMP(s) is meeting its proper function to eliminate or control pollutants on site.
 - 3. The operator's report should show compliance with the Construction General Permit (CGP), Common Plan Permit (CPP) if applicable, and the site specific SWPPP.
 - a. This includes all documentation regarding corrections taken as a result of the operator's self-inspection.
 - b. Onsite Oversight Inspection
 - i. An onsite oversight inspection may be warranted under the following conditions:
 - 1. Compliance with the CGP, CPP if applicable, and site specific SWPPP cannot be reasonably determined during an electronic oversight inspection.
 - 2. A perceived or reported threat to water quality that is immediate³ and/or imminent⁴. Or a reported complaint.
 - 3. Failure to install BMPs prior to land disturbance.
 - 4. Illicit discharge, unknown/unidentified non-storm water discharge, or prohibited discharge per CGP/CPP permits.
 - 5. The operator requests that oversight inspections be performed onsite.
 - 6. Any other oversight inspection step listed below that cannot be fulfilled.
 - c. An oversight inspection, both electronic and onsite, is performed by following these steps:

³ <u>Immediate Threat</u>: A situation where pollutant discharge to state waters is already occurring or is inevitable without urgent corrective action. This refers to a present and active risk that requires immediate attention to prevent or mitigate further contamination.

⁴ <u>Imminent Threat</u>: A situation that poses a high likelihood of pollutant discharge to state waters in the near future if corrective actions are not taken. This refers to conditions that suggest a serious risk is developing but has not yet resulted in an actual discharge.

- 1. Review the SWPPP
- 2. Review the SWPPP signage for compliance with the CGP or CPP
 - a. Placed in a safe, conspicuous, and publicly accessible location near the entrance
 - b. Includes UPDES permit tracking number, contact information, and method of SWPPP access
- 3. Review the operator self SWPPP inspection reports
- 4. Review the entire perimeter and any downgradient areas
- 5. Review points of vehicle/equipment exit
- 6. Review any discharge points (keep in mind that these are not always piped inlets)
- 7. Review all BMPs installed to mitigate or prevent sediment, erosion, and pollution
- 8. Review all stabilizing areas (especially steep slopes)
- 9. Review all pollutant generating activities such as fueling areas, washout areas, etc.
- 10. Observe all discharges (if prohibited or unauthorized this is an immediate and/or imminent threat to water quality)
- 11. Observe all conditions that could result in polluted storm water discharge (including sediment in the street/gutter)
- 12. Determine if any additional sediment, erosion, and/or pollution prevention controls are needed
- 13. Verify that all above activities are accounted for and updated in the site's SWPPP and Map
- 14. Any deficiencies must be noted in the oversight inspection form
- d. For oversight inspections, MS4 staff must use the *Oversight Construction Inspection Form* provided by the Division of Water Quality.
 - i. MS4 staff sends a copy of the oversight inspection to the operator.
 - ii. MS4 staff maintains record of all oversight inspections through Farmington City's records.
- e. If the storm water BMPs on a construction site are found to be deficient by the MS4 inspector, steps will be taken to address the deficiencies as outlined in the *Enforcement for Construction Sites SOP*.
 - i. Violations could include:
 - 1. Failure to maintain BMPs
 - 2. Failure to install BMPs
 - 3. An illicit discharge
 - 4. Failure to conduct inspections
 - 5. Failure to update SWPPP
 - 6. Any other CGP and/or CPP requirements that are deficient

- 3. After Construction
 - a. The operator will request through NeT, a Notice of Termination (NOT) once these conditions have been met:
 - i. All temporary storm water control measures have been removed
 - ii. The site has achieved final stabilization
 - iii. All construction materials, waste, and equipment have been removed
 - iv. All potential pollutants and pollution-generating activities have been removed
 - b. MS4 staff who have 'MS4 Authority' will be notified of the request to approve the operator's NOT via an email notification from NeT.
 - c. MS4 staff will verify through an electronic oversight inspection (or on-site oversight inspection if applicable described in the *Enforcement for Construction Sites SOP*) if all NOT requirements have been met and approve or deny the NOT submission via NeT.
 - d. MS4 staff will document the NOT inspection through the State's *Storm Water NOT* and maintain a record of it Farmington City's Records.
 - e. All documents related to each applicable construction site must be retained for five years or until construction is completed, whichever is longer.

IE-2 Enforcing Construction Site Requirements

Introduction

From Utah Code 19-5-108.3:

"A municipal system may conduct an on-site inspection if the municipal system has a documented reason for justifying an on-site oversight inspection." (Utah Code 19-5-108.3(15))

"Violation" means a failure to implement or maintain preferred best management practices. (Utah Code 19-5-108.3(1)(k))

1. Purpose:

The purpose of this SOP is to describe how MS4s will implement standards from the MS4 Permit in conjunction with Utah State Code 19-5-108.3 in regard to sites that do not comply with their SWPPP and state issued Construction General Permit (CGP) or Common Plan Permit (CPP) if applicable. For purposes of this SOP, "operator" means the person responsible for SWPPP implementation on an applicable construction site.

2. Responsibilities:

Each MS4's storm water staff are responsible for implementing the requirements and may not defer from this SOP. The operator is responsible for abiding by all requirements of the UPDES Storm Water General Permit or Common Plan Permits for Construction Activities and the MS4 is responsible for oversight.

- The position responsible for oversight inspections is Brent White.
- The position(s) who has authority to implement enforcement procedures is Farmington City's Storm Water Official, as well as the Division of Water Quality (DWQ).

This SOP is to be followed and updated according to State and municipal requirements.

3. MS4 Permit Requirements:

- 1. Enforcement procedures and regulatory authority must be written and documented in the SWMP of each MS4.
 - a. The procedures of this SOP should be summarized or referenced in the MS4's SWMP which is accessible by the public. Regulatory authority is described in the *Inspections of Permitted Construction Sites SOP*.
- 2. Each MS4 staff with responsibility over the SWPPP program must be trained in proper documentation of inspections, follow-up, and enforcement actions.
 - a. Documentation of routine maintenance, corrective action, follow-up inspections, and enforcement actions should all be included with the *Oversight Construction Inspection Form* provided by the DWQ.

- i. Any communication between the operator and the MS4 should be recorded and retained through Farmington City's records.
- ii. Verbal communication alone is not advised. If important communication does occur verbally (such as agreement on BMP improvement, corrective action deadline, etc.) between the operator and the MS4, restating the conversation afterwards via email to the operator is advised so that a record can be retained.
- 3. For construction sites that have been issued one or more stop work order(s), the construction site should now be considered a "priority construction site" if it was not already designated as such. Oversight inspection frequency would then increase to at least biweekly due to the past record of non-compliance by the operator and potential to threaten water quality.

4. Process:

- 1. Oversight Inspections
 - a. If violations of the CGP/CPP permit are determined after conducting an inspection (electronic or onsite) as identified in the *Oversight Inspections SOP*, the MS4 must document each violation as part of completing the *Oversight Construction Inspection Form* provided by DWQ as identified in the next step. *If the inspection was conducted onsite, justification for an onsite oversight inspection must be documented on the inspection form.*
- 2. Violation and Follow-up Procedures
 - a. First Notice of Violation (NOV 1)
 - i. The MS4 must notify the operator of the violation(s) in writing as part of completing the *Oversight Construction Inspection Form*. The violation notation at minimum must include:
 - 1. Explanation/Identification of each violation
 - 2. Associated citation from the CGP/CPP
 - 3. Deadline to correct each violation.
 - a. The deadline to correct violations should be no sooner than 24 hours (immediate⁵ threats to water quality), and no later than 7 days (imminent⁶ threats to water quality).
 - ii. Reinspection
 - 1. The MS4 should perform a follow-up electronic oversight inspection to verify that each violation has been corrected as soon as is practicable after the deadline given by the MS4.
 - a. If the follow up electronic inspection report submitted by the operator is not sufficient for MS4 staff to determine that the violation has been corrected, an onsite oversight inspection

⁵ <u>Immediate Threat</u>: A situation where pollutant discharge to state waters is already occurring or is inevitable without urgent corrective action. This refers to a present and active risk that requires immediate attention to prevent or mitigate further contamination.

⁶ Imminent Threat: A situation that poses a high likelihood of pollutant discharge to state waters in the near future if corrective actions are not taken. This refers to conditions that suggest a serious risk is developing but has not yet resulted in an actual discharge.

may be conducted. If the inspection was conducted onsite, justification for an onsite oversight inspection must be documented on the inspection form.

- 2. If the operator has not corrected the violation(s), the MS4 will notify the operator that the violation hasn't been corrected in writing as described in the next step.
- b. Second Notice of Violation (NOV 2)
 - i. The MS4 must notify the operator of the violation(s) in writing as part of completing the *Construction Oversight Inspection Form*. The violation notation at minimum must include:
 - 1. Explanation/Identification of each remaining violation
 - 2. Associated citation from the CGP/CPP
 - 3. Deadline to correct each violation.
 - a. The deadline to correct violations should be no sooner than 24 hours (immediate threats to water quality), and no later than 7 days (imminent threats to water quality).
 - 4. Written warning that a stop work order can be issued if the violation is not corrected within the new time period specified by the MS4 (at minimum, another 24 hours).
 - ii. Reinspection
 - 1. The MS4 should perform a follow-up electronic oversight inspection to verify that each violation has been corrected as soon as is practicable after the deadline within the time period given by the MS4.
 - a. If the follow up electronic inspection report submitted by the operator is not sufficient for MS4 staff to determine that the violation has been corrected, an onsite oversight inspection may be conducted. *If the inspection was conducted onsite, justification for an onsite oversight inspection must be documented on the inspection form.*
 - 2. If the operator has not corrected the violation(s), the MS4 will notify the operator that the violation hasn't been corrected in writing as described in the next step.
- c. Third Notice of Violation (NOV 3)
 - i. The MS4 may issue a stop work order until the MS4 performs an oversight inspection to verify that the violation has been corrected or the operator shows the violation has been corrected through an electronic site inspection report.
- d. Documentation:
 - i. The results of all enforcement notices, communications, and inspections including follow-up or reinspection's, must be documented through Farmington City's records.
- 3. Special Cases
 - a. The MS4 can issue a stop work order earlier than in the process described above if the MS4 can document that the violation imposes an immediate and/or imminent threat to water quality.

- b. The MS4 can correct a violation for the operator, and recoup the costs associated, if the operator refuses to correct the violation and there is imminent significant harm to water quality or the stormwater system.
- c. The MS4 cannot issue a stop work order if the violation is a result of a properly installed and maintained BMP per specifications from the preferred BMP list.
- d. MS4s are not allowed to issue fines related to oversight of construction sites.

4. Communication:

Each MS4 will utilize a method of communication for enforcement (such as a notice of violation, stop work orders) to the operator.

• The method used for Farmington City is email.

IE-3 Flow Chart for Enforcement for Construction Sites

Enforcement for Construction Sites



IE-4 Inspecting Long-Term Controls (Private)

- 1. Preparation:
 - a. Check Records; review terms of maintenance agreement (if any), information about the design and function of the control, and previous inspections that are on-file.
 - b. Per the MS4 permit UTR090006 which Farmington City currently holds line item 4.2.5.2 gives authority to the Long-Term Stormwater Management Plan & Agreement to obligate the private owner of Long-Term Controls of annual inspection/maintenance responsibilities.
 - c. Notify the owner of the inspection and schedule a time when owner (or owner's representative) will conduct the inspection and submit report to the City.
- 2. Process:
 - a. Ensure the owner uses the Long-Term Control Inspection Form as appropriate for the type of control to be inspected.
 - b. Ensure owner submits photos and adequate reports.
 - c. Receive and document inspection report.
 - d. Review inspection report and determine if any corrective actions are needed.
 - i. If yes, communicate said corrective actions to owner and determine a timeline in which they must correct said items.
- 3. Follow-up:
 - a. Return to check corrective action items shortly after any deadline given to the owner.
 - b. Implement SOP: *Enforcing Long-Term Controls (IE-5)* as needed to ensure compliance.
- 4. Documentation:
 - a. File inspection reports, photos, and notes of corrective actions performed.
 - b. Document enforcement actions taken.

IE-5 Inspecting Long-Term Controls (Public)

- 1. Preparation:
 - a. Check Records; review information about the design and function of the control, and previous inspections that are on-file.
 - b. Schedule the inspection; plan to inspect each city-owned long-term structural control annually.
- 2. Process:
 - a. Use the Long-Term Control Inspection Form as appropriate for the type of control to be inspected.
 - b. Inspect condition of control according to the inspection form (whether adequately maintained, operating as designed, etc.).
 - c. Take photos.
 - d. Complete the report; note any corrective actions needed and schedule these to be completed within a reasonable time.
 - e. Communicate corrective actions needed to the department responsible for maintenance.
- 3. Follow-up:
 - a. Return to check corrective action items shortly after scheduled time for completion.
 - b. Note any corrective actions performed.
 - c. Take photos.
- 4. Documentation:
 - a. File inspection reports and notes on corrective actions performed.
 - b. If applicable; report activities to the Street Superintendent to update the Maintenance database.

IE-6 Enforcing Long-Term Controls

- 1. Preparation:
 - a. Ensure that any problems needing corrective action have been documented and submitted to the responsible party.
 - b. Ensure sufficient photo and inspection evidence is on file to support claims.
 - c. Review maintenance agreement, previous inspections, warnings given, and other enforcement actions taken.

2. Process:

- a. Use these escalating enforcement actions:
 - i. Warning: Give the owner a warning to correct problems with a reasonable deadline to complete corrections. Skip this step if the problems pose a serious threat to human safety or the environment.
 - ii. Notice of Deficiency: If problems are not corrected by the deadline, of if the problem is re-occurring, issue a Notice of Deficiency by certified mail or hand delivery (with supervisor's approval). Also provide another reasonable deadline before pursuing additional enforcement action.
 - iii. Correct Problem and Bill Owner: city crews can be utilized at \$500/hr. (one hour minimum).
 - iv. Collection of Charges: coordinate with City Prosecutor and City Treasurer for collection of charges.
- 3. Follow-up:
 - a. Return to check corrective action items shortly after any deadline given to the owner.
 - b. Take photos.
 - c. Implement further escalating enforcement action as needed to ensure compliance.
- 4. Documentation:
 - a. File photos and inspection reports.
 - b. Document enforcement actions taken.

IE-7 High Priority Site Monthly Visual Inspection

- 1. Preparation:
 - a. Review the high-priority site SWPPP physically located at site.
 - i. Ensure monthly and semi-annual inspections are being documented.
 - b. Review information about previous month inspections.
 - c. Take note of any previous corrective action needed that has not been documented as complete.
 - d. Ensure you are outfitted with the required PPE.
- 2. Process:
 - a. Use the State Inspection Form as a guide to conduct the inspection.
 - i. This is updated often so a copy will not be provided here, go to the DWQ website for the most recent version.
 - b. Inspect and verify conditions of the BMP's and all other systems designed and placed to eliminate pollutant discharges, general site cleanliness, and compliance with the State MS4 permit.
 - i. Remember that protecting waters of the State is the goal, if you see an issue previously undefined by the SWPPP, bring it to the attention of the Stormwater Manager.
 - c. Take numerous photos.
 - d. Complete and certify the report.
 - e. Define any corrective actions needed for compliance.
 - f. Give the responsible City Department a deadline for the corrective action items.
 - i. Take note of severity and weather to determine timeline.
 - g. Email a copy of the completed inspection report to the department head.
 - h. Save a copy of the inspection report for State and/or City records.
- 3. Follow-up:
 - a. Schedule any necessary corrective actions with Department Heads.
 - b. Return to check corrective action items shortly after any deadline given to the contractor has elapsed.
 - c. Implement SOP: *Enforcing Construction Site Requirements (IE-2)* as needed to ensure compliance.
- 4. Documentation:
 - a. File inspection report, corrective actions, communication with responsible departments, and all photos.
 - b. Record all details on the SWPPP on-site. If that is not possible ensure the SWPPP on-site has an accurate description to where the records can be found.

IE-8 High Priority Site Semi-Annual Visual Inspection

- 1. Preparation:
 - a. Review the high-priority site SWPPP physically located at site.
 - i. Ensure monthly and semi-annual inspections are being documented.
 - b. Review information about previous month inspections.
 - c. Take note of any previous corrective action needed that has not been documented as complete.
 - d. Ensure you are outfitted with the required PPE.
- 2. Process:
 - a. Use the State Inspection Form as a guide to conduct the inspection.
 - i. This is updated often so a copy will not be provided here, go to the DWQ website for the most recent version.
 - b. Inspect and verify conditions of the BMP's and all other systems designed and placed to eliminate pollutant discharges, general site cleanliness, and compliance with the State MS4 permit.
 - i. Remember that protecting waters of the State is the goal, if you see an issue previously undefined by the SWPPP, bring it to the attention of the Stormwater Manager.
 - c. Focus on the catalysts that make this location a high-priority site. Inspect each factor individually (salt shed, chlorine tank, fertilizer storage, fuel tanks, etc.).
 - d. Take numerous photos.
 - e. Complete and certify the report.
 - f. Define any corrective actions needed for compliance.
 - g. Give the responsible City Department a deadline for the corrective action items.
 - i. Take note of severity and weather to determine timeline.
 - h. Email a copy of the completed inspection report to the department head.
 - i. Save a copy of the inspection report for State and/or City records.
- 3. Follow-up:
 - a. Schedule any necessary corrective actions with Department Heads.
 - b. Return to check corrective action items shortly after any deadline given to the contractor has elapsed.
 - c. Implement SOP: *Enforcing Construction Site Requirements (IE-2)* as needed to ensure compliance.
- 4. Documentation:
 - a. File inspection report, corrective actions, communication with responsible departments, and all photos.
 - b. Record all details on the SWPPP on-site. If that is not possible ensure the SWPPP on-site has an accurate description to where the records can be found.

IE-9 High Priority Site Annual Visual Observation of Stormwater Discharges

- 1. Preparation:
 - a. Review the high-priority site SWPPP physically located at site.
 - i. Ensure monthly, and semi-annual inspections are being documented.
 - b. Contact the Water Superintendent and organize a team to assist in flushing the Storm Drain lines.
 - c. Identify the storm drain infrastructure and note all outfalls that drain the high-priority site in question.
 - d. Ensure you are outfitted with the required PPE.
- 2. Process:
 - a. Field locate all outfalls that drain the high-priority site.
 - b. Conduct an inspection per SOP: *Outfall Inspections (IDDE-1)*.
 - c. Post yourself or an individual at each outfall to observe storm water discharges.
 - d. Find the nearest fire hydrant and organize team to attach flow regulator.
 - e. Use SOP: *Waterline Flushing for Routine Maintenance (W-3)* to direct flow into storm drain inlets.
 - f. Observe the function of the storm drain system as water floods region of focus.
 - g. Use SOP: *High-Priority Site Monthly Visual Inspections (IE-6)* to guide observations.
 - h. Turn off water.
 - i. Clean any debris flushed out of the storm drain system.
- 3. Follow-up:
 - a. Schedule any necessary corrective actions with Department Heads.
 - b. Return to check corrective action items shortly after any deadline given to the department in question has elapsed.
- 4. Documentation:
 - a. File inspection report, corrective actions, communication with responsible departments, and all photos.
 - b. Record all details on the SWPPP on-site. If that is not possible ensure the SWPPP on-site has an accurate description to where the records can be found.

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GENERAL

G-1 Debris Disposal

- 1. Preparation:
 - a. Know the location of the approved disposal facilities:
 - i. Debris Disposal Area: Landfill or Public Works Debris Yard.
 - ii. Other facility as arranged for specific project, and approved by Public Works Director
 - b. Check and secure load as necessary to minimize loss of debris during transport;
- 2. Process:
 - a. Transport the material to one of the above-listed facilities
 - b. Unload the debris into the facility
- 3. Clean-up:
 - a. Clean off loose material from vehicle prior to departure from disposal facility
 - b. If washing vehicle see SOP: *Vehicle and Equipment Washing (G-6)*.

GENERAL

G-2 Painting

- 1. Preparation:
 - a. Calculate the amount of paint required for the job
 - b. Set up traffic and pedestrian control, as necessary
 - c. Prepare surfaces to be painted using dry methods (e.g. scraping, brushing)
 - d. Have available absorbent material ready in case of an accidental spill
- 2. Process:
 - a. Use drop clothes in areas of mixing paints and painting
 - b. Use care to prevent over-spraying of paints
 - c. Store latex paint rollers and brushes in air tight bags to be reused later with the same color when practical.
- 3. Clean-up:
 - a. Paint out brushes and rollers as much as possible. Squeeze excess paint from brushes and rollers back into the containers prior to cleaning them.
 - b. Pour excess paint from trays and buckets back into the paint can containers and wipe with cloth or paper towels. Dispose of the towels according to the recommendations on the paint being used.
 - c. Remove traffic and pedestrian controls at appropriate times
 - d. Rinse water-based paint brushes in the sink after pre-cleaning. Never pour excess paint or wastewater from cleanup of paint in the storm drain.
 - e. Clean applicators of oil-based paints with paint thinner using buckets; never clean oilbased brushes in a sink or over a storm drain. Store used solvents in closed buckets indoors. Dispose at a hazardous waste disposal facility

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GENERAL

G-3 Transporting Saturated Soils

- 1. Preparation:
 - a. Determine destination, truck to use, and a haul route
- 2. Process:
 - a. Load and Transport in manner to minimize spillage & tracking of material
 - i. Clean surface between tailgate and truck bed to allow good seal to minimize leakage
 - ii. Load truck such that the top of the saturated soils is at least one foot below bed walls
 - iii. Clean off loose material from outside of truck that may fall on road during transport
 - iv. Drive slowly to prevent spillage when turning, slowing, and accelerating
 - b. Haul the material utilizing one route
- 3. Clean-up:
 - a. Clean any spilled material from loading area
 - b. Examine transport route; arrange for cleaning of any loose material* along route
 - c. If washing equipment see SOP: Vehicle and Equipment Washing (G-6).
G-4 Transporting Unsaturated Soils

- 1. Preparation:
 - a. Determine destination, truck to use, and a haul route
- 2. Process:
 - a. Load and Transport in manner to minimize spillage & tracking of material
 - i. Clean surface between tailgate and truck bed to allow good seal to minimize leakage
 - ii. Load truck such that the top of the unsaturated soils is below bed walls
 - iii. Clean off loose material from outside of truck that may fall on road during transport
 - iv. Drive slowly to prevent spillage when turning, slowing, and accelerating
 - b. Haul the material utilizing one route
- 3. Clean-up:
 - a. Clean any spilled material from loading area
 - b. Examine transport route; arrange for cleaning of any loose material along route
 - c. If washing equipment see SOP: Vehicle and Equipment Washing (G-6).

G-5 Vehicle & Equipment Storage

- 1. Preparation:
 - a. Take notice of fluids on parking areas that may indicate a leak
 - b. Provide drip pans and sorbents for leaking vehicles
 - c. Observe parking lot drainage inlets
- 2. Process:
 - a. Whenever possible, store vehicles inside where floor drains are connected to sanitary sewer system
 - b. When inside storage is not available, park vehicles and equipment in designated areas
 - c. DO NOT PARK over a drainage inlet. This negates the ability to detect leaks.
 - d. When a leak is detected, place a drip pan under the leaking vehicle to collect the drip, and arrange to get the leak repaired as soon as possible
- 3. Clean-up:
 - a. Utilize SOP: Response & Reporting Decision Matrix (SI-1)
 - b. Utilize SOP: Response & Reporting Contact List (SI-2)
 - c. Utilize SOP: Discharge/Spill Inspection Report (SI-3)
 - d. If under the specified amounts in the aforementioned SOPs then clean up any spills using dry cleanup methods: sorbent materials and sweeping; dispose of soiled sorbents in the garbage.
- 4. Documentation:
 - a. Notify the Fleet Manager of the leak location and vehicle the leak originated from.

G-6 Vehicle & Equipment Washing

- 1. Preparation:
 - a. Be aware that washing must be done in designated locations only:
 - i. Wash Bay Public Works Department Building, North Side
 - ii. Lawn mower cleaning may also be done on the lawn, provided the wash water does not run off
 - iii. (Note) Other inside bays may also be used if it is known that the floor drain flows to a separator that is connected to a sanitary sewer
 - b. If vehicle or equipment is too large for washing in one of the above locations, a commercial truck wash may be used
 - i. Location: Flying J Travel Plaza (I-215 and Redwood Road)
 - c. Transport vehicle/equipment to one of the approved locations
- 2. Process:
 - a. Clean the vehicle/equipment inside the designated area
 - b. Take care to avoid wash water from running away from wash-area drain
- 3. Clean-up:
 - a. Clean the wash area after use by spraying dirt/debris into the wash drain

G-7 Waste Receptacles

- 1. Preparation:
 - a. Ensure each site has a sufficient number and size/type of waste containers
 - b. (Note) Parks allowing pets are to have signs with bags available for collecting pet waste. These are to be placed near select waste receptacles.
 - c. Strategically locate containers to be in a location where easily identifiable yet not prone to being accidently tipped or damaged
 - d. Use containers that are covered (protected from precipitation) and have no drainage holes in the bottom
- 2. Process:
 - a. Empty receptacles regularly
 - i. Large bins to be emptied every week
 - ii. Smaller receptacles (at parks, etc.) to be emptied according to seasonal needs as often as daily in summer
 - iii. Stock bags for pet waste
 - b. Notice areas where un-collected litter is accumulates to consider changing size, location, and/or schedule for emptying containers at facility
- 3. Clean-up:
 - a. Dispose according to SOP: Debris Disposal (G-1).
 - b. Perform an annual cleaning of smaller receptacles (at parks, etc.) according to the SOP: *Vehicle and Equipment Washing (G-6)*.
 - c. Any cleaning of large containers must be done according to SOP: *Vehicle and Equipment Washing (G-6)*.
 - d. (Note) Large receptacles are not normally cleaned, but rather replaced with new containers; old containers are placed in landfill for final disposal.

G-8 Chemical Management (Including Fertilizers, Herbicides, & Pesticides)

- 1. Preparation:
 - a. Make sure you are adequately trained on any chemical you'll be handling and understand the SDS
 - b. Store chemicals indoors, away from hazards that would accidently tip or damage container
 - c. Make sure containers are in good condition and properly labeled (any chemical-holding containers in poor condition are to be placed in chemical storage room with secondary containment)
 - d. Have necessary containment and spill kits materials at location of chemical handling, suitable for the material to be handled
 - e. Have appropriate PPE available
- 2. Process:
 - a. Wear appropriate PPE
 - b. Perform chemical-handling activity according to manufacturer's recommendations and SDS
 - c. If a significant accidental spill occurs:
 - i. Utilize SOP: Response & Reporting Decision Matrix (SI-1)
 - ii. Utilize SOP: *Response & Reporting Contact List (SI-2)*
 - iii. Utilize SOP: Discharge/Spill Inspection Report (SI-3)
 - d. Once complete, ensure the chemical container is sealed and returned to storage.
- 3. Clean-Up:
 - a. Dispose of excess waste material according to manufacturer's recommendations
 - b. If material is hazardous it must be handled by a licensed hazardous waste handler and disposed of at a hazardous waste disposal site.
 - c. If a significant spill occurs:
 - i. Utilize SOP: Response & Reporting Decision Matrix (SI-1)
 - ii. Utilize SOP: Response & Reporting Contact List (SI-2)
 - iii. Utilize SOP: *Discharge/Spill Inspection Report (SI-3)*
 - d. If under significant amount use dry cleanup methods

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G-9 Pressure Washing Building Exteriors

- 1. Preparation:
 - a. Consider using dry cleaning methods first; use this procedure for cases when dry methods are inadequate
 - b. Plan to use only water and pressure; do not use detergents with this procedure
 - c. Perform process only during dry weather
 - d. Have storm drain inlet protection device available, See SOP: Inlet Protection (S/S-1).
 - e. Determine whether cleaning activity will potentially generate runoff. If so, place inlet protection device(s) down gradient in order to capture wash water then follow SOP: *Inlet Protection (SSD-1)*.
- 2. Process:
 - a. Do NOT USE any soaps or chemicals that could enter the storm drain.
 - b. Pressure wash the building exterior, ensuring any wash water runoff flows toward inlet protection devices.
 - c. Allow accumulated wash water to evaporate or filter through inlet protection devices.

3. Clean-Up:

- a. Clean impervious walking surfaces around building
- b. Sweep up large fragments; and
- c. Sweep or spray residual fragments onto pervious landscaped surfaces.
- d. Remove inlet protection once accumulated wash water has evaporated and/or filtered through inlet protection.
- e. Clean around inlet protection according to SOP: Inlet Protection (SSD-1).
- f. Dispose of waste according to SOP: Debris Disposal (G-1).

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PR-1 Chemical Application: Pesticides, Herbicides, & Fertilizers

- 1. Preparation:
 - a. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
 - b. Use pesticides only if there is an actual pest problem and test soils for determining proper fertilizer use when determined necessary by staff.
 - c. Time and apply the application of fertilizers, herbicides or pesticides to coincide with the manufacturer's recommendation for best results ("Read the Label").
 - d. Know the weather conditions. Do not use chemical applications if rain is expected. Apply chemical applications only when wind speeds are low (less than 5 mph).
- 2. Process:
 - a. Always follow the manufacturer's recommendations for mixing, application and disposal. ("Read the Label").
 - b. Do not mix or prepare chemical applications for use near storm drains, mix inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils. DO PREPARE IN PARKING LOT.
 - c. Employ techniques to minimize off-target application (e.g. spray drift, over broadcasting.) of chemical applications.
- 3. Clean-up:
 - a. Sweep/blow pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
 - b. Triple rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
 - c. Ensure that rinsing of the containers is being discharged to the area in which the product is being used or drain into the sewer. NEVER discharge rinse water to impervious surfaces or the storm drain infrastructure.
 - d. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers. ("Read the Label").
- 4. Documentation:
 - a. Keep copies of MSD sheets for all pesticides, fertilizers and other hazardous products used.
 - b. Record fertilizing and pesticide application activities.
- 5. Emergency:
 - a. If a spill occurs immediately contact a supervisor. Use SOP: *Response & Reporting (SI-2)*
 - b. If the spill occurred on impervious surfaces deploy BMPs immediately to stop the chemical application from entering the storm drain. Use SOP: *Inlet Protection (SSD-1)*.
 - c. Use SOP: *Inspection Report (SI-3)* to complete an inspection and record of the event.

PR-2 Mowing & Trimming

- 1. Preparation:
 - a. Review process with all employees.
 - b. Plan the area of work, its size, duration of work, and fuel needed.
 - c. Fuel and prepare machines (oil, coolant, etc.) at the Parks & Recreation shop.
- 2. Process:
 - a. Mow edges of lawn with mow blade discharge directed back to the field of grass, not into the street, sidewalk, or parking lot.
 - b. Avoid allowing clippings to enter storm drain inlets.
 - c. Once completed with mowing and trimming all clippings are to be swept or blown back on to grass areas.
- 3. Clean-up:
 - a. DO NOT BRUSH DOWN EQUIPMENT ON SITE. Mowers are to be scraped and brushed at shop.
 - b. Spoils (lawn clippings and landscaping refuse) are dried, swept and disposed of.
 - c. Equipment washed in approved wash station, see SOP: *Vehicle and Equipment Washing* (G-6).

PR-3 On-Site Fueling of Mowers and Trimmers

- 1. Preparation:
 - a. If possible, Fuel and prepare machines (oil, coolant, etc.) at the Parks & Recreation shop.
 - b. Have the following on hand:
 - i. Spill Kit with socks, absorbent pads, and container for dirty absorbent.
 - ii. An approved container fuel container with a fuel cap with fuel inside, tied down to avoid spillage.
 - iii. Funnel
- 2. Process:
 - a. Always shut off the engine and wait for at least 5 minutes for the engine to cool before refueling.
 - b. Remove fuel cap, make sure you are doing this in a well-ventilated area.
 - c. Place funnel into fuel tank.
 - d. Pour the fuel from the container slowly to ensure no spillage.
 - e. Leave room at the top of the tank for expansion of the fuel, DO NOT OVERFILL.
 - f. Wipe up any spills that are on the machine immediately. If a spill happens to get on the ground follow SOP *Spill Incident SI-1 Response & Reporting Decision Matrix*.
 - g. Remove funnel and retighten fuel cap.
- 3. Clean-up:
 - a. Place fuel container on the transport, make sure it has a cap and is tied down.

PR-4 Planting Vegetation (Starters)

- 1. Preparation:
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities. Dial 811 or 1-800-662-4111.
 - b. Decide where any spoils will be taken.
- 2. Process:
 - a. Dig holes; place spoils near the hole where they may easily be placed back around roots. DO NOT place spoils in the gutter, street or sidewalk.
 - b. Bring each plant near the edge of the hole dug for it.
 - c. Check the depth of the hole, and adjust the depth if necessary. The depth of the hole for a tree should be determined by park staff depending on soil conditions, groundwater depths, etc.
 - d. Carefully remove pot or burlap.
 - e. Place the plant in the hole.
 - f. Backfill the hole with existing spoils, compost, and a litter fertilizer if desired. Do not use excessive amendments.
 - g. Water the plant.
 - h. Stake the plant, if necessary, to stabilize it.
- 3. Clean-up:
 - a. Transport any excess material as per the SOP's: *Transporting Saturated Soils (G-3)* and/or *Transporting Unsaturated Soils (G-4)*.
 - b. Sweep dirt from surrounding pavement(s) into the planter area.

PR-5 Planting Vegetation (Seeds)

- 1. Preparation:
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities. Dial 811 or 1-800-662-4111.
 - b. Decide on the application rate, method, water source, and ensure adequate materials are in possession.
 - c. Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.
 - d. DO NOT Store any extra soil or spoils on impervious surfaces like the sidewalk, street, or gutter.
- 2. Process:
 - a. Place the seed and any cover using the pre-determined application method (and rate).
 - b. Lightly moisten the seed.
- 3. Clean-up:
 - a. Transport any excess material as per the SOP's: *Transporting Saturated Soils (G-3)* and/or *Transporting Unsaturated Soils (G-4)*.
 - b. Sweep dirt, seed, and any cover material from surrounding pavement(s) into the planter area.

PR-6 City Sponsored Festivals & Parades

- 1. Preparation:
 - a. Schedule crews to facilitate clean-up during and/or after event.
 - b. Consider and plan for additional waste receptacles.
 - c. Consider and plan for any necessary porta-johns.
 - d. Consider and plan for any necessary storm water protections and utilize SOP: *Inlet Protection (SSD-1).*
- 2. Process:
 - a. Hand collect loose trash material and animal waste during event.
 - b. Empty waste receptacles; remove extra receptacles.
- 3. Clean-Up:
 - a. Sweep streets, parking areas, and other areas impacted by the event according to SOP: *Street Sweeping (SSD-12).*
 - b. Dispose of waste according to SOP: *Debris Disposal (G-1)*.
 - c. Ensure any porta-johns used for the event are promptly removed following the event
- 4. Documentation:
 - a. Document streets and parking areas that were swept in the storm drain maintenance log.

PR-7 PLANNED POOL DRAINING PROCEDURE

- 1. Preparation:
 - a. Plan ahead as this takes a few days so make sure you have enough time to complete the process.
 - i. Stop adding chlorine and/or shut off chlorination system.
 - ii. Leave water in pool uncovered for a week or longer to allow chlorine to dissipate.
 - iii. Cycle pumps periodically to help chlorine dissipate quicker.
 - iv. Get pump from public works with hoses. Ensure that the pump is full of fuel.
- 2. Process:
 - a. Measure chlorine levels to ensure there's no detectable levels of chlorine present (below .1 mg/L).
 - b. Measure the pH level to ensure that it is within a 6.5-9.0 range.
 - c. Pump out the pool.
 - d. Check to make sure that discharge water is flowing across vegetation and before making its way into the storm drain.
- 3. Clean-Up:
 - a. Roll up hoses. Take hoses and pump back to public works.
- 4. Documentation:
 - a. Document the discharge and note if any issues were observed.

PR-8 EMERGENCY POOL DRAINING PROCEDURE

- 1. Preparation:
 - a. Acquire Dechlorination Chemical, preferably one that contains Sodium Sulfite (Na2SO3)
 - b. Get pump from public works with hoses. Ensure that the pump is full of fuel
- 2. Process:
 - a. Follow the instructions on the label for the Dechlorination Chemical.
 - b. Measure chlorine levels to ensure there's no detectable levels of chlorine present (below 0.1 mg/L).
 - c. Measure the pH level to ensure that it is within a 6.5-9.0 range.
 - d. Pump out the pool.
 - e. Check to make sure that discharge water is flowing across vegetation and before making its way into the storm drain.
- 3. Clean-Up:
 - a. Roll up hoses. Take hoses and pump back to public works.
- 4. Documentation:
 - a. Document the discharge and note if any issues were observed.

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SDM-1 Annual Storm Drain Inspection, Maintenance, and Cleaning

In Reference to Farmington City's Storm Water Management Program and pertinent to Farmington City's Municipal Separate Storm Sewer System (MS4) permit #UTR090006, Farmington City is inspecting each component of its storm drain system every five years.

To stay in compliance with the MS4 permit, the following inspection map *SOP SDM-2*, inspection/cleaning/maintenance schedule *SOP SDM-3*, inspection procedure *SOP SDM-4*, maintenance procedure *SOP SDM-5*, and cleaning procedures are followed.

The city has been divided into 5 zones and each of these areas are labeled with a letter as shown on in *SOP Inspection Storm Drain Maintenance Inspection Map SDM-2*. These zones are rotated through on a yearly basis as a result the city-wide storm drain system is inspected, cleaned, and maintained every five years.

The following is a description of the borders of the 5 zones:

Area A:

	South Border: Farmington City Limits		East Border: Farmington City Limits
	West Border: Interstate 15	North E	Border: State Street
Area B:			
	South Border: State Street West Border: Main Street	East Bo North E	rder: Farmington City Limits Border: 1400 North / Farmington City Limits
Area C:			
	South Border: State Street West Border: Interstate 15	East Bo North E	rder: Main Street Border: Farmington City Limits
Area D:	:		
	South Border: Clark Lane / State	e Street	East Border: Interstate 15
	West Border: Farmington City L	imits	North Border: Farmington City Limits
Area E			
	South Border: Farmington City Limits		East Border: Interstate 15
	West Border: Farmington City Limits		North Border: Clark Lane

SDM-2 Inspection Map



SDM-3 Inspection/Cleaning/Maintenance Schedule

All City Maintained: Detention Ponds, Retention Ponds, Catch Basins, Storm Drain Manholes, Land Drain Manholes, and Storm Drain Pipes in their respective zones are inspected in the years listed as follows:

ZONE A: 2023, 2028, 2033, 2038, 2043, 2048, then every 5 years subsequent

ZONE B: 2024, 2029, 2034, 2039, 2044, 2049, then every 5 years subsequent

ZONE C: 2025, 2030, 2035, 2040, 2045, 2050, then every 5 years subsequent

ZONE D: 2026, 2031, 2036, 2041, 2046, 2051, then every 5 years subsequent

ZONE E: 2027, 2032, 2037, 2042, 2047, 2052, then every 5 years subsequent

SDM-4 Visual Catch Basin, Pipe, & Manhole Inspection Procedure

- 1. Preparation:
 - a. Bring a Flashlight.
 - b. Plan inspection route(s) that progress down the system (if applicable)
 - c. Set up traffic controls, as necessary
- 2. Process:
 - a. Brush off debris on and around grate/manhole cover.
 - b. Remove grate/manhole cover.
 - c. If an illicit discharge is suspected conduct an IDDE Inspection per SOP: *Manhole Inspection (IDDE-2)*
 - d. Check to make sure grate, frame and box is in good repair.
 - e. Inspect the piping for sediment, cracks, or signs of infiltration or contamination.
 - f. Check the debris content and quantity in the sump of the basin.
 - g. Replace cover; make sure it is secure.
- 3. Clean-up:
 - a. Remove traffic controls if used.
- 4. Documentation:
 - a. Document the inspection and the findings in the *SDM-7 Storm Drain Maintenance Inspection Report.*

If during the visual inspection of the piping indicates signs of infiltration or major cracking has occurred, a video inspection of the piping will need to be scheduled and performed using SOP *SDM-5 Video Storm Drain Pipe Inspection Procedure*.

If the visual inspection of the piping does not indicate signs of cracking, infiltration, or any cause for concern a Video Storm Drain Pipe Inspection is not required.

SDM-5 Video Storm Drain Pipe Inspection Procedure

- 1. Process:
 - a. Operation of the CCTV camera truck requires a 2-person crew.
 - b. Complete truck vehicle checklist: Clean windows, inspect inside and outside of truck, fuel tanks are full, check equipment (note repairs needed), and check lights and flashers.
 - c. Review maps for lane size and traffic patterns to ensure necessary traffic control equipment is present.
 - d. Ensure pipe segments were previously cleaned.
 - e. Set up traffic control for manhole location and align rear of truck with camera cable over manhole structure so camera can be guided into line for inspection.
 - f. Lower camera into manhole and face it into the downstream pipe. Adjust "sock" (tiger tail) to protect camera cable.
 - g. For drop manholes use an electrical crane and debris grabber to assist getting the camera into the raised pipe segment.
 - h. Begin remote-reading footage counter from centerline of the manhole.
 - Move camera through the pipeline in a downstream direction at a uniform rate.
 Camera should not be pulled through at a speed greater than 30 feet per minute. Stop camera when necessary and document the sewer's condition.
 - j. If television camera will not pass through the entire pipeline segment, the camera operator will reset the equipment at the downstream manhole and attempt to inspect the section of pipe from the opposite direction.
 - k. Document all conditions in color CD-format video.
 - I. Detailed logging of all defects encountered shall be entered electronically during inspection.
 - m. End remote-reading footage counter from centerline of the manhole.
 - n. Rewind the camera cable and return the reel assembly to the locked travel position.
 - o. If traffic control requires adjustment for the next setup, pick up the cones and reset the taper.
 - p. Complete inspection sheet. Print detailed logging of pipe segment. If a structure needs immediate attention, notify your supervisor that the pipe segment needs major repair.
 - q. Replace cover; make sure it is secure.
- 2. Documentation:
 - a. Document the inspection and the findings in the SDM-7 Storm Drain Maintenance Inspection Report.
 - b. Place video of the inspection in the P:\StormWater\Annual Inventory Inspections and select the proper year.

SDM-6 Detention/Retention Basin Inspection Procedure

- 1. Visually inspect the basin and answer the following questions:
 - a. Are there any of the following present?
 - i. Reports of the basin not functioning correctly
 - ii. Unauthorized or malfunctioning structures in the basin
 - iii. Standing water or evidence of standing water in the basin
 - iv. Are flows entering the basin and directly exiting without contacting vegetation or bottom soil
 - v. Litter or debris in the basin
 - vi. Excess sediment in the basin
 - vii. Excess vegetation or phragmites in the basin
 - viii. Signs of erosion around the inlet or outlet structure
 - ix. Signs of stormwater exiting the basin in an uncontrolled manner
- 2. Document the inspection using the SOP STORM DRAIN MAINTENANCE SDM-7.
 - a. Take note of any issues that you find with the basin using the questions above.

SDM-7 Inspection Report

Farmington City Storm Drain Inspection Report:				
Fill out the following report once an inspection of a storm drain component has occurred.				
Date: AM / PM				
Name of Inspector:				
Component ID:				
Address of the component:				
What is the reason for this inspection:				
Regular Maintenance / Illicit Discharge / Flooding Incident / Other (please describe in the comments)				
Has it rained in the past 3 days? Yes / No				
Is the component functioning as it was designed? Yes / No				
Is there any evidence of an illicit discharge? Yes / No				
What type of inspection occurred? Video / Visual				
Has any damage occurred to this component? No / Yes (please describe in the comments)				
If there is damage, is it considered major or minor? Not Applicable / Major / Minor				
Comments:				

*If major repair is required, please contact the Street Superintendent immediately to initiate an immediate work order.

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SD-1 Placing Inlet Protection

- 1. Preparation:
 - a. Acquire inlet protection material and make sure it is in good operational condition.
 - i. Gravel bags (preferred), or
 - ii. Wattles, or
 - iii. Proprietary devices such as witches' hat, or Flexstorm
 - b. Determine best location for placing the inlet protection, typically at the nearest downstream inlet(s) subject to receiving flow from the activity.
 - i. Note: in some cases, inlet protection may be placed in gutter upstream of inlet if it is subject to receiving flow from activity
- 2. Process:
 - a. Place inlet protection in a way to avoid unintended bypass of flow; wattles may need to be weighed down.
 - b. Periodically check the inlet protection for placement and condition, particularly after receiving runoff; replace if it is not in good working condition.
 - c. Continually remove accumulated sediment and deposit per SOP: Debris Disposal (G-1).
- 3. Clean-up:
 - a. Clean accumulated debris and dispose of according to SOP: Debris Disposal (G-1).
 - b. Remove Inlet protection when activity is completed.

SD-2 Cleaning Catch Basins & Drainage Pipes

- 1. Preparation:
 - a. Plan cleaning route(s) that progress down the system (if applicable)
 - b. Set up traffic controls, as necessary
 - c. Clean sediment and trash from grate.
- 2. Process:
 - a. Brush off debris on and around grate/manhole cover.
 - c. Remove grate/manhole cover.
 - d. If an illicit discharge is suspected conduct an IDDE Inspection per SOP: *Manhole Inspection (IDDE-2)*
 - e. Check to make sure grate, frame and box is in good repair.
 - f. Clean sediment and debris from the box, manhole, and/or pipe.
 - g. Replace cover; make sure it is secure.
- Clean-up:
 - h. Remove traffic controls if used.
 - i. Sweep any debris littered onto impervious surfaces. If needed utilize SOP: *Street Sweeping (ST-8).*
 - j. Dispose of debris and waste water removed according to SOP: Debris Disposal (G-1).

Documentation:

- k. Record catch basins cleaned in storm drain maintenance log.
- I. Note any apparent problems and report them to superintendent.

SD-3 Cleaning Detention Ponds

- 1. Preparation:
 - a. Plan pond cleaning activities to occur during dry weather; do not clean detention ponds during wet weather unless there is an urgent need.
 - b. Remove sediment and trash from grates.
 - c. Check to make sure grates and other features are in good working order.
 - d. Identify and mark any landscaping boxes, inlets, grates or other infrastructure present in the basin so as not to damage during process.
- 2. Process:
 - a. Clean debris and accumulated sediment from pond in a manner that prevents sediment and debris from going downstream.
 - i. Note: this means performing the work during dry weather.
 - b. Load sediment and debris into a truck for disposal utilizing SOP's: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4).*
 - c. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
- 3. Clean-up:
 - a. After cleaning basins, clean off any pavement, loading areas, and if needed the street using SOP: *Street Sweeping (ST-8)*.
 - b. Dispose of sediment and debris according to SOP: Debris Disposal (G-1).
- 4. Documentation:
 - a. Record detention ponds cleaned in storm drain maintenance log.
 - b. Note any apparent problems and report them to superintendent

SD-4 Creek Management

- 1. Preparation:
 - a. Monitor streams on a regular basis. Especially after storm events.
 - b. Check culverts and crossings after every storm.
 - c. Maintain access to stream channels wherever possible.
 - d. Notify Public Works Director and City Engineer of issue.
- 2. Process:
 - a. Identify areas requiring maintenance.
 - b. Determine what manpower or equipment will be required.
 - c. Identify access and easements to area requiring maintenance.
 - d. Determine if the identified Creek is operated and maintained by Davis County Public Works.
 - i. Haights, Shepherd, Farmington, Rudd, Steed, & Davis Creeks are maintained by Davis County Public Works.
 - ii. If one of the above Creeks is impaired and need of attention contact Davis County Public Works with the defined issue.

Contact: Davis County Public Works 1500 East 650 North Fruit Heights, UT 84037, US (801) 444-2230

- e. Determine method of maintenance that will be least damaging to channel.
- f. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
- 3. Clean-up:
 - a. Stabilize all disturbed soils.
 - b. Remove all tracking from paved surfaces near maintenance site if applicable utilizing SOP: *Street Sweeping (IDDE-12).*
 - c. Haul all debris or sediment removed from area to approved dumping site utilizing SOP's: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4)*.
- 4. Documentation:
 - a. Keep log of actions performed.
 - b. Record the amount of materials removed or imported.
 - c. Keep any notes or comments on any problems.
 - d. Record creeks cleaned in storm drain maintenance log.
 - e. Note any apparent problems and report them to superintendent

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ST-1 Chip Seal

- 1. Preparation:
 - a. Identify stretch of road under consideration of chip seal.
 - b. Notify public and residents of the timeline of work to be conducted.
 - c. Apply storm drain infrastructure protections.
 - d. Cover storm drain inlets, manholes, and catch basins to prevent oil and materials from getting inside the structures or system. Use SOP: *Inlet Protection (SD-1)*.
- 2. Process:
 - a. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
 - b. Clean and dry areas where materials are to be applied.
 - c. Follow closely behind emulsion distributor with chip spreader.
 - d. Travel slowly enough to prevent chips from rolling when they hit the surface.
 - e. Use street sweeper to pick up excess chips.
 - f. Follow closely behind the chip spreader with rollers. Maximum speed 5 mph. Roll entire surface twice.
- 3. Clean-up:
 - a. Remove loose aggregate from the roadway.
 - b. Remove excess asphalt applications and spills.
 - i. Dispose of excess material using SOP: *Debris Disposal (G-1)*.
 - c. Remove storm drain infrastructure protections.
 - i. When covers are removed, remove any materials which have entered the storm drain structures.
 - d. Conduct a final sweep using SOP: *Street Sweeping (IDDE-12)*.
- 4. Documentation:
 - a. Record location and date on the maintenance database and map.

ST-2 Slurry Seal

- 1. Preparation:
 - b. Identify stretch of road under consideration of slurry seal.
 - c. Notify public and residents of the timeline of work to be conducted.
 - d. Apply storm drain infrastructure protections.
 - e. Cover storm drain inlets, manholes, and catch basins to prevent oil and materials from getting inside the structures or system. Use SOP: *Inlet Protection (SD-1)*.
- 2. Process:
 - a. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
 - b. Remove weeds from the roads.
 - c. Clean and dry areas where materials are to be applied.
 - d. Verify that existing pavement has been inspected for detrimental effects of poor drainage.
 - e. Apply materials smoothly and uniformly.
 - f. Slurry material should not run onto adjacent pavement surface.
- 3. Clean-up:
 - a. Remove loose aggregate from the roadway.
 - b. Remove excess emulsion and spill materials.
 - i. Dispose of excess material using SOP: Debris Disposal (G-1).
 - c. Remove storm drain infrastructure protections.
 - i. When covers are removed, remove any materials which have entered the storm drain structures.
 - d. Conduct a final sweep using SOP: *Street Sweeping (IDDE-12)*.
- 4. Documentation:
 - a. Record location and date on the maintenance database and map.

ST-3 Crack Seal

- 1. Preparation:
 - a. Identify stretch of road under consideration of crack seal.
 - b. Notify public and residents of the timeline of work to be conducted.
 - c. Apply storm drain infrastructure protections.
 - d. Cover storm drain inlets, manholes, and catch basins to prevent oil and materials from getting inside the structures or system. Use SOP: *Inlet Protection (SD-1)*.
- 2. Process:
 - a. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
 - b. Remove weeds from the roads.
 - c. Air-blast cracks to remove sediments from the crack to allow for proper adhesion.
 - d. Clean and dry areas where materials are to be applied.
 - e. Maintain proper temperature of material
 - f. Apply sufficient material to form the specified configuration.
 - g. Apply materials smoothly and uniformly.
- 3. Clean-up:
 - a. Remove excess sealant application or spills.
 - i. Dispose of excess material using SOP: *Debris Disposal (G-1)*.
 - b. Remove storm drain infrastructure protections.
 - i. When covers are removed, remove any materials which have entered the storm drain structures.
- 4. Documentation:
 - a. Record location and date on the maintenance database and map.

ST-4 Overlays & Patching

- 1. Preparation:
 - a. Identify stretch of road under consideration of overlay & patch.
 - b. Notify public and residents of the timeline of work to be conducted.
 - c. Apply storm drain infrastructure protections.
 - d. Cover storm drain inlets, manholes, and catch basins to prevent oil and materials from getting inside the structures or system. Use SOP: *Inlet Protection (SD-1)*.
- 2. Process:
 - a. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
 - b. Properly seal cracks. Remove alligator cracks and potholes and patch them-mill rutting.
 - c. Clean and dry surface.
 - d. Apply uniform tack coat and cure prior to placement of overlay.
 - e. Check aggregate for:
 - i. Proper temperature,
 - ii. Percentage asphalt,
 - iii. Gradation,
 - iv. Air voids, and any other agency requirements.
 - f. Surface texture should be uniform, no tearing or scuffing.
 - g. Roll to achieve proper in-place air void specification.
- 3. Clean-up:
 - a. Remove covering as soon as the threat of imported materials entering the system is reduced and prior to a storm event.
 - b. Raise structure rims to elevation of new asphalt.
 - c. Remove excess sealant application or spills.
 - i. Dispose of excess material using SOP: Debris Disposal (G-1).
 - d. Remove storm drain infrastructure protections.
 - i. When covers are removed, remove any materials which have entered the storm drain structures.
- 4. Documentation:
 - a. Record location and date on the maintenance database and map.

ST-5 Concrete Work

- 1. Preparation:
 - a. Identify a location, near the worksite, for the concrete truck to washout and to clean tools; the washout location must not allow the washout to runoff into the gutter.
 - i. Washout basin must be a rigid container.
 - ii. Note: backhoe bucket is an acceptable location.
 - b. Plan to conduct concrete work during dry weather conditions; do not place concrete if precipitation is expected before concrete is expected to set up.
 - c. Set up traffic controls according to MUTCD, part 6.
- 2. Process:
 - a. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
 - b. Remove old concrete, soil, and any other spoils; load them into a truck to be hauled away using SOP's: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4)*.
 - c. Place and compact base material*
 - d. Form concrete to be placed**
 - e. Place concrete**
- 3. Clean-up:
 - a. Direct concrete truck driver to washout concrete truck at pre-determined washout location.
 - b. Clean finishing tools at pre-determined washout location or on lawn.
 - c. Clean street, gutters, and sidewalk from loose soil.
 - d. Remove traffic control.
 - e. Dispose of material removed and concrete wash according to SOP: *Debris Disposal (G-1)*.
- 4. Documentation:
 - a. Record location and date on the maintenance database and map.
- *Select, place, and compact base according to APWA and Farmington City Engineering Standards.
- **Select, form, pace, and cure concrete according to APWA and Farmington City Engineering Standards.

ST-6 Asphalt Paving

- 1. Preparation:
 - a. Plan to pave when weather will be:
 - i. At least 50 degrees F; and
 - ii. During dry weather.
 - b. Make sure surface is pre-treated as follows:
 - i. large cracks are sealed;
 - ii. alligator cracks and potholes are removed and patched;
 - iii. rutted areas are milled level;
 - c. Sweep pavement surface according to SOP: Street Sweeping (IDDE-12).
 - d. Allow street to dry.
 - e. Mark locations of manhole and valve covers on the curb.
 - f. Set up traffic controls according to MUTCD, part 6.
 - g. Cover storm drain inlets, manholes, and catch basins to prevent oil and materials from getting inside the structures or system. Use SOP: Inlet Protection (SD-1)
 - h. Apply uniform tack coat on surface.
- 2. Process:
 - a. Conduct all work utilizing the Best Management Practices (BMPs) defined in the adjacent appendix of the Farmington SWMP.
 - b. Place hot mix asphalt uniformly to surface*.
 - c. If raising manhole and valve lids during paving, carefully remove the material from the lid before taking the lid off of the frame, and carefully remove lid to avoid spilling the material into the manhole or valve box.
 - d. After the riser is in place, carefully replace the manhole lid without pushing asphalt material into the manhole or valve box.
 - e. Compact the asphalt to minimum 95% of Marshall density*
- 3. Clean-up:
 - a. Remove excess asphalt material from surface at start and stop points with shovels
 - b. Remove Traffic Control.
 - c. Clean gutters from loose material.
 - d. Dispose of excess asphalt according to SOP: Debris Disposal (G-1).
 - e. Clean equipment according to SOP: Vehicle and Equipment Washing (G-6).
 - f. Return within 2 days to sweep per SOP: *Street Sweeping (IDDE-12)*.

*Select, place, and compact hot mix asphalt according to APWA standards and Farmington City Engineering Standards

ST-7 Snow Removal & De-Icing

- 1. Preparation:
 - a. Store de-icing material under a covered storage area.
 - b. Understand City policy to keep roads open and free of snow or ice pack from any storm, in a way that uses a minimum amount of salt without compromising motorists' safety
 - c. Wash out vehicles in preparation (if necessary) in approved washout area according to SOP: *Vehicle and Equipment Washing (G-6)*.
 - d. Calibrate spreaders to minimize amount of de-icing material used and still be effective.
- 2. Process:
 - a. Load material into trucks minimizing spillage.
 - b. Distribute the minimum amount of de-icing material to be effective on roads.
 - c. Park trucks with de-icing material inside when possible.
 - d. If a hydraulic and/or fuel leak is detected while snowplowing STOP IMMEDIATELY.
 - i. Utilize SOP: Response & Reporting Decision Matrix (SI-1)
 - ii. Utilize SOP: Response & Reporting Contact List (SI-2)
 - iii. Utilize SOP: Discharge/Spill Inspection Report (SI-3)
- 3. Clean-up:
 - a. Sweep up all spilled de-icing material around loading area.
 - b. Clean out trucks after snow removal duty according to SOP: *Vehicle and Equipment Washing (G-6)*.
 - c. Sweep up residual from streets when weather permits using SOP: *Street Sweeping* (*IDDE-12*).
 - d. If a spill occurred clean area using dry spill kit materials.
- 4. Documentation:
 - a. Quantify the amount of de-icing material used and report to Public Works Director.
 - b. If a spill occurred complete the SOP: *Discharge/Spill Inspection Report (SI-3)* and submit to Public Works Director and Storm Water Manager.
ST-8 Street Sweeping

- 1. Preparation:
 - a. Follow the Storm Drain Maintenance Master Plan.
 - i. Streets are to be swept as needed or specified by the city. Street maps are used to ensure all streets are swept at a specified interval.
 - b. Prioritize cleaning routes to use at the highest frequency in areas with the highest pollutant loading.
 - c. Restrict street parking prior to and during sweeping using regulations as necessary.
 - d. Perform preventative maintenance and services on sweepers to increase and maintain their efficiency.
 - e. Find and download a good podcast, playlist, or audio book.
- 2. Process:
 - a. Drive street sweeper safely and pick up debris.
 - b. If drowsy;
 - i. STOP the vehicle;
 - ii. Get out;
 - iii. Stretch;
 - iv. Do 10 pushups, 25 sit-ups, run as fast as you can 50 yards;
 - v. Walk back to vehicle;
 - vi. Resume.
 - c. If a hydraulic and/or fuel leak is detected while street sweeping STOP IMMEDIATELY.
 - i. Utilize SOP: Response & Reporting Decision Matrix (SI-1)
 - ii. Utilize SOP: Response & Reporting Contact List (SI-2)
 - iii. Utilize SOP: Discharge/Spill Inspection Report (SI-3)
- 3. Clean-up:
 - a. Street sweepers will be cleaned out at the Public Works Debris Yard.
 - i. Comply with the SWPPP for this specific site.
 - b. After drying, waste from the sweeper will be collected and hauled to the landfill using SOP: *Debris Disposal (G-1)*.
 - c. If a spill occurs prior to emptying street sweeper at designated site;
 - i. Clean area using dry spill kit materials, or
 - ii. Utilize the street sweeper to pick up the material again.
- 4. Documentation:
 - a. Keep accurate logs to track streets swept and streets still requiring sweeping.
 - b. Report activities to the Street Superintendent to update the Maintenance database.

ST-9 Curb Painting

- 1. Preparation:
 - a. Calculate the amount of paint required for the job.
 - b. Use water-based paints if possible.
 - c. Determine whether the wastes will be hazardous or not and the required proper disposal of said wastes.
 - d. Determine locations of storm drain inlets and sewer inlets that may need to be protected.
 - i. If storm drain inlets are in the vicinity protect them from spills utilizing SOP: *Inlet Protection (SSD-1).*
 - e. Prepare surfaces to be painted without generating wastewater; e.g. use sandblasting and or scraping.
 - f. Use a citrus-based paint remover whenever possible, less toxic than chemical strippers.
 - g. If wastewater will be generated, use curb, dyke, etc. around the activity to collect the water and collect the debris.
 - i. Dispose of contaminates per SOP: *Debris Disposal (G-1)*.
- 2. Process:
 - a. Paint curb.
 - b. Prevent over-spraying of paints and/or excessive sandblasting.
 - c. Use drip pans and drop clothes in areas of mixing paints and painting.
 - d. Store latex paint rollers and brushes in air tight bags to be reused later with the same color.
 - e. If a spill occurs <u>STOP IMMEDIATELY</u>.
 - i. Utilize SOP: Response & Reporting Decision Matrix (SI-1)
 - ii. Utilize SOP: Response & Reporting Contact List (SI-2)
 - iii. Utilize SOP: Discharge/Spill Inspection Report (SI-3)
- 3. Clean-up:
 - a. Sweep up all spilled de-icing material around loading area.
 - b. Clean out trucks after snow removal duty according to SOP: *Vehicle and Equipment Washing (G-6)*.
 - c. Sweep up residual from streets when weather permits using SOP: *Street Sweeping* (*IDDE-12*).
 - d. If a spill occurred clean area using dry spill kit materials.
- 4. Documentation:
 - a. Quantify the amount of de-icing material used and report to Public Works Director.
 - b. If a spill occurred complete the SOP: *Discharge/Spill Inspection Report (SI-3)* and submit to Public Works Director and Storm Water Manager.

ST-10 Shouldering & Mowing

- 1. Preparation:
 - a. Determine length of job or task.
 - b. Locate and determine a disposal site.
 - c. Use proper equipment and avoid any safety hazards.
 - d. Perform any roadside maintenance in a way to prevent eroded materials from entering the storm drain system.
 - e. Install BMPs to protect storm drain inlets using SOP: *Inlet Protection (SSD-1)*.
- 2. Process:
 - a. Load truck with material using SOP: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4)* or have it brought in.
 - b. Verify load, travel same route. Smooth or grade road.
 - c. Place import material as needed and perform grading to achieve proper drainage.
 - d. Maintain proper slope in road for water runoff.
 - e. Keep mow level 3 inches above dirt to reduce safety hazards, debris scattered on road, and vegetation destruction.
- 3. Clean-up:
 - a. Remove grass clippings from paved surfaces and gutter after mowing.
 - b. Clean up accumulated material around storm drain protection BMPs, then remove.
 - c. Clean up equipment using SOP: *Vehicle and Equipment Washing (G-6)*. Spray down should not enter storm drain system.
 - d. Clean up any debris on traveled roads.
- 4. Documentation:
 - a. Keep accurate logs to track street mowing and streets still requiring maintenance.
 - b. Report activities to the Street Superintendent to update the Maintenance database.

ST-11 Secondary Road Maintenance

- 1. Preparation:
 - a. Determine length of job or task.
 - b. Locate and determine a disposal site.
 - c. Use proper equipment and avoid any safety hazards.
 - d. Check for proper drainage: slopes, berms etc.
 - e. Install BMPs to protect storm drain inlets using SOP: Inlet Protection (SD-1).
- 2. Process:
 - a. Load truck with material using SOP: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4)* or have it brought in.
 - b. Verify load, travel same route. Smooth or grade road.
 - c. Maintain proper slope in road for water runoff.
- 3. Clean-up:
 - a. Clean up accumulated material around gravel bags, then remove.
 - b. Clean up equipment using SOP: *Vehicle and Equipment Washing (G-6)*. Spray down should not enter storm drain system.
 - c. Clean up any debris on traveled roads.
- 4. Documentation:
 - a. Keep accurate logs to track secondary streets maintained and streets still requiring maintenance.
 - b. Report activities to the Street Superintendent to update the Maintenance database.

ST-12 Material Storage

- 1. Preparation:
 - a. Review the material in question.
 - b. Determine its location, duration, and material type
 - i. If stored on impervious surfaces determine BMPs to mitigate runoff to storm drain inlets.
 - ii. If stored for a duration longer than 14 days determine BMPs to mitigate wind, rain, and snow erosion to storm drain inlets.
 - 1. If easily transportable by hydraulic events (salt, sand, woodchips, etc.) special consideration will be needed in determining BMPs.
 - c. When possible store all material under cover, on an impervious surface contained by a threshold to reduce runoff from erosion to the MS4, or percolation into groundwater.
 - d. Never allow landscaping material to be staged on the road, or in storm water conveyance channels without proper BMPs.
 - e. Secure proper BMPs to protect material while stored and inform Stormwater Manager of plan/efforts.
- 2. Process:
 - a. Deposit material.
 - b. Install BMPs to protect material.
 - c. Where applicable install BMPs to protect storm drain inlets using SOP: *Inlet Protection* (*SSD-1*).
 - d. If material pile is dynamically permanent (salt pile) then conduct BMP inspections per SOP: *High-Priority Site Monthly Visual Inspections (IE-6)*.
- 3. Clean-up:
 - a. Clean up area around material deposition using SOP: Street Sweeping (IDDE-12).
 - b. Clean up any material caught by inlet protection.
 - c. Remove inlet protection.
 - d. Haul off excess soil and debris according to SOP: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4).*
 - e. Dispose of waste per SOP: Debris Disposal (G-1).
- 4. Documentation:
 - a. Record time of material deposition, and removal.
 - b. Keep documentation of all inspections conducted on BMPs protecting material.

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W-1 Planned Waterline Excavation Repair/Replacement

- 1. Preparation:
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of underground utilities: 811 or 1-800-662-4111
 - b. Set up temporary traffic control see Part VI of the MUTCD
 - c. Saw cut pavement in area needing excavation.
 - d. Determine where discharge flow will go.
 - e. Clean gutter leading to inlets.
 - f. Install BMPs to protect storm drain inlets using SOP: Inlet Protection (SSD-1).
 - g. Use proper equipment and avoid any safety hazards.
 - h. Isolate waterline to be worked on by turning off valves.
- 2. Process:
 - a. Drain line as much as possible from a hydrant or drain valve.
 - b. Direct any discharge to protected inlet (determined in step 1d)
 - c. Backfill and compact excavation
 - i. Remove as much saturated soil as feasible.
 - ii. Place and compact backfill in lifts no deeper than one foot.
 - iii. Place and compact top lift to make it blend with surrounding pavement.
- 3. Cleanup:
 - a. Clean up area around excavation using SOP: Street Sweeping (IDDE-12).
 - b. Clean up any material caught by inlet protection.
 - c. Remove inlet protection.
 - d. Haul off excess soil and debris according to SOP: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4).*
 - e. Dispose of waste per SOP: *Debris Disposal (G-1)*.
- 4. Documentation:
 - a. Report activities to the Street Superintendent, and Water Superintendent.

W-2 Emergency Waterline Excavation Repair/Replacement

- 1. Preparation:
 - a. Isolate waterline to be worked on by turning off valves.
 - b. Make sure service trucks are equipped inlet protection materials such as wattles or gravel bags.
 - c. Set up temporary traffic control see Part VI of the MUTCD.
 - d. Call the Blue Stakes Center of Utah to notify them of the need to dig for an emergency repair: 811 or 1-800-662-4111.
 - e. Install BMPs to protect storm drain inlets using SOP: Inlet Protection (SSD-1).
 - f. Use proper equipment and avoid any safety hazards.
- 2. Process:
 - a. Drain line as much as possible from a hydrant or drain valve.
 - b. Follow appropriate repair procedures in making the repair.
 - c. Backfill and compact excavation.
 - i. Remove as much saturated soil as feasible.
 - ii. Place and compact backfill in lifts no deeper than one foot.
 - iii. Place and compact top lift to make it blend with surrounding pavement.
- 3. Clean-up:
 - a. Repair eroded areas as needed.
 - b. Clean up loose material from apparent tracking or spills along travel path of trucked material.
 - c. Clean up any material caught by inlet protection.
 - d. Conduct sweeping as needed using SOP: Street Sweeping (IDDE-12).
 - e. Remove inlet protection.
 - f. Haul excess soils according to SOP: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4).*
 - g. Dispose of waste per SOP: Debris Disposal (G-1).
- 4. Documentation:
 - a. Report activities to the Street Superintendent, and Water Superintendent.

W-3 Waterline Flushing for Routine Maintenance

- 1. Preparation:
 - a. Determine flow path of discharge to inlet of waterway.
 - b. Clean flow path.
 - c. Install BMPs to protect storm drain inlets using SOP: *Inlet Protection (SSD-1)*.
- 2. Process:
 - a. If it appears that flushing straight from the hydrant or blow-off valve may cause a problem (such as erosion, or splash on vehicles), connect a hose or diffuser to the discharge fitting.
 - b. Turn on the valve to flush the water, and leave it on until enough time has passed to allow adequate flushing of the line to occur.
 - c. Turn off the water
- 3. Clean-up:
 - a. Clean up any material caught by inlet protection.
 - b. Remove inlet protection.
 - c. Haul excess soils according to SOP: *Transporting Saturated Soils (G-3) and/or Transporting Unsaturated Soils (G-4).*
 - d. Dispose of waste per SOP: Debris Disposal (G-1).
- 4. Documentation:
 - a. Report activities to the Water Superintendent.

W-4 Waterline Flushing After System Disinfection – Discharge to Storm Drain

- 1. Preparation:
 - c. Determine chlorine content of discharged water for utilizing appropriate de-chlorination equipment.
 - d. Determine flow path of discharge.
 - e. Clean the flow path.
 - f. Install BMPs to protect storm drain inlets using SOP: Inlet Protection (SSD-1).
- 2. Process:
 - a. Place de-chlorination equipment on point of discharge according to manufacturer's recommendation.
 - b. If it appears that flushing straight from the hydrant or blow-off valve may cause a problem (such as erosion, or splash on vehicles), connect a hose or diffuser to the discharge fitting.
 - c. Allow water to run until line is adequately flushed, then turn off and remove dechlorination equipment.
 - d. Sample for chlorine residual.
- 3. Clean-up:
 - a. Clean up any material caught by inlet protection and dispose according to SOP: *Debris Disposal (G-1).*
 - b. Remove inlet protection.
 - c. Remove equipment from flush point.
- 4. Documentation:
 - a. Record result of chlorine residual test.

W-5 Waterline Flushing After System Disinfection – Discharge to Off-Site Location

- 1. Preparation:
 - a. Determine appropriate location for application of the chlorinated water.
 - b. Estimate the amount of water to be flushed, and select tanker to use and number of trips that will be necessary.
- 2. Process:
 - a. Flush to tanker.
 - b. Haul the chlorinated water to the pre-selected location.
 - c. Apply the chlorinated water to the soil such that the water does not run off of the site.
 - d. Have a sample taken for a chlorine residual test
- 3. Clean-up:
 - a. None
- 4. Documentation:
 - a. Record result of chlorine residual test.

W-6 Chemical Handling/Transporting and Spill Response

- 1. Preparation:
 - a. Understand MSDS for handling and storage of product.
 - b. Determine best location to handle product at destination site.
 - c. Have necessary containment and spill kits at handling place, suitable for the material to be handled.
 - d. If at a Priority Site review the SWPPP and follow all minimum control measures.
- 2. Process:
 - a. Make connections.
 - b. Begin transfer process.
 - c. Discontinue operations if spill or leaking occurs, and repair before continuing.
 - d. Disconnect and store handling equipment.
- 3. Clean-up:
 - a. Respond to and report spills according to SOP: *Response & Reporting Decision Matrix* (*SI-1*) and SOP: *Response & Reporting Contact List (SI-2*).
 - b. Ensure that any spills are cleaned up. If spilled material is hazardous, it must be handled by a licensed hazardous waste handler and disposed at a hazardous waste disposal site.

Contact: Veolia Environmental Services 709 N. Taylor Way Suite 1 North Salt Lake, UT 84054, US

(801) 232-0976

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PL-1 Metes and Bounds Storm Water Review/Checklist

When reviewing a Metes and Bounds Submittal, use the following checklist of criteria while checking for approval.

Requirements for Metes and Bounds

- 1. As a condition of approval of a Metes and Bounds subdivision, the applicant may be required to install or provide the following improvements, unless specifically waived by the Planning Commission:
 - a. Boundary monuments, established in accordance with standards set forth4-3 by the Davis County Surveyor and Title 17, Chapter 23, Utah Code Annotated;
 - b. curb and gutter;
 - c. sidewalk;
 - d. asphalt or concrete paving of rights-of-way;
 - e. appropriate storm drainage facilities;
 - f. public utility easements.

- 1. A clear plan for the storm water drainage.
- 2. Easements for any public storm water drainage system components.
- 3. Are the Low-Impact Development requirements of the need to retain the 80th percentile and detail the 100-year 24-hour storm event being met?
- 4. Do the individual lots drain independently? Lots are not allowed to drain onto the neighboring lots without drainage easements.
- 5. Verify if a Long-Term Storm Water Management Plan is required.
- 6. Does the plan show how much impervious surface the project is adding?
- 7. Does the plan delineate FEMA flood risk zones or conservation easement areas?
- 8. A soils report submitted showing percolation rates?
- 9. A water quality report submitted show the proximity to the nearest water body?

PL-2 Project Master Plan (PMP) / Planned Unit Development (PUD) / Conservation Subdivision Storm Water Review/Checklist

When reviewing a Schematic Submittal, use the following checklist of criteria while checking for approval.

The proposed site plan shall include the following items:

- 1. The proposed name of the site.
- A vicinity plan showing significant natural and manmade features on the site and within five hundred (500) feet of any portion of it; the property boundaries of the proposed subdivision; the names of adjacent property owners; topographic contours at no greater interval than five (5) feet; and north arrow.
- 3. A proposed site layout.
- 4. A description of the type of culinary and irrigation water system(s) proposed; also, documentation of water rights and secondary water shares.
- 5. A description of the size and location of sanitary sewer and stormwater drain lines and subsurface drainage.
- 6. A description of those portions of the property which are included in the most recent flood insurance rate maps prepared by FEMA.

- 1. A clear plan for the storm water drainage.
- 2. Easements for any public storm water drainage system components.
- 3. Are the Low-Impact Development requirements of the need to retain the 80th percentile and detail the 100-year 24-hour storm event being met?
- 4. Do the individual lots drain independently? Lots are not allowed to drain onto the neighboring lots without drainage easements.
- 5. Does the plan show how much impervious surface the project is adding?
- 6. Does the plan delineate FEMA flood risk zones or conservation easement areas?
- 7. Does the plan dedicate a right of way for storm drainage conforming substantially with the lines of any natural watercourse or channel, stream, creek, irrigation ditch or floodplain that enters or traverses the subdivision?
- 8. Does the plan dedicate acceptable rights of way for any pipe, conduit, channel, and retention or detention area?

PL-3 Site Plan Storm Water Review/Checklist

When reviewing a Schematic Submittal, use the following checklist of criteria while checking for approval.

The proposed site plan shall include the following items:

- 1. The proposed name of the site.
- A vicinity plan showing significant natural and manmade features on the site and within five hundred (500) feet of any portion of it; the property boundaries of the proposed subdivision; the names of adjacent property owners; topographic contours at no greater interval than five (5) feet; and north arrow.
- 3. A proposed site layout.
- 4. A description of the type of culinary and irrigation water system(s) proposed; also, documentation of water rights and secondary water shares.
- 5. A description of the size and location of sanitary sewer and stormwater drain lines and subsurface drainage.
- 6. A description of those portions of the property which are included in the most recent flood insurance rate maps prepared by FEMA.

- 1. A clear plan for the storm water drainage.
- 2. Easements for any public storm water drainage system components.
- 3. Are the Low-Impact Development requirements of the need to retain the 80th percentile and detail the 100-year 24-hour storm event being met?
- 4. Do the individual lots drain independently? Lots are not allowed to drain onto the neighboring lots without drainage easements.
- 5. Does the plan show how much impervious surface the project is adding?
- 6. Does the plan delineate FEMA flood risk zones or conservation easement areas?
- 7. Does the plan dedicate a right of way for storm drainage conforming substantially with the lines of any natural watercourse or channel, stream, creek, irrigation ditch or floodplain that enters or traverses the subdivision?
- 8. Does the plan dedicate acceptable rights of way for any pipe, conduit, channel, and retention or detention area?
- <u>Hydrological Study:</u> Design will consider pervious and impervious areas of the proposed development or redevelopment under the 80th percentile storm event. <u>As of 2020 the 80th</u> <u>percentile storm event is 0.49" in 24-hours for Farmington City</u>. Calculations will need to be completed and submitted to the City documenting the design parameters of the LID facilities.
- 10. <u>Water Quality Study:</u> Utah Department of Water Quality *A Guide to Low-Impact Development Within Utah* Appendix B provides a Storm Water Quality Report Template. This must be completed prior to approval of the development or redevelopment. Additional items such as

proposed site-specific pollutants, distance of LID BMP to the nearest State Water, and water quality controls proposed prior to retention are to be included.

- 11. Long-Term Storm Water Management Plan & Agreement: The property owner is required to work with the City Engineer, or his/her designee, to create a Long-Term Storm Water Management Plan (LTSWMP) and follow its requirements. All onsite LID facilities will be owned and maintained by the property owner, unless the City agrees otherwise. The facilities will need to be designed in a way that allows the City to access, inspect and possibly maintain them.
- 12. Soil Report: A soil report, based upon adequate test borings and excavations, prepared by a civil engineer specializing in soil mechanics and registered by the State of Utah, shall be required prior to preliminary approval of any subdivision plat. The soil report shall include, among other things, a description of the soil types and characteristics on the site, describe whether or not ground water was encountered in any of the test borings and at what elevation it was encountered, and shall identify the location of any seismic zones or flood zones on the property. If the soil report indicates the presence of critically expansive soils, high water table, the presence of toxic or hazardous waste, or other soil problems which, if not corrected, would lead to structural defects of the proposed buildings, damage to the buildings from the water, premature deterioration of the public improvements, or which would represent a public health hazard, a soil investigation of each lot in the subdivision may be required by the City Engineer. The soil investigation shall recommend corrective actions intended to prevent damage to proposed structures and/or public improvements. The fact that a soil report has been prepared shall be noted on the final plat and a copy attached to the preliminary plat application.

PL-4 Schematic Storm Water Review/Checklist

When reviewing a Schematic Submittal, use the following checklist of criteria while checking for approval.

The proposed schematic plan shall include the following items:

- 1. The proposed name of the subdivision.
- 2. A Subdivision Yield Plan pursuant to Chapter 12 of Title 11 if a Conservation Subdivision or a Planned Unit Development is proposed by the Applicant.
- A vicinity plan showing significant natural and manmade features on the site and within five hundred (500) feet of any portion of it; the property boundaries of the proposed subdivision; the names of adjacent property owners; topographic contours at no greater interval than five (5) feet; and north arrow.
- 4. A proposed lot and street layout.
- 5. A description of the type of culinary and irrigation water system(s) proposed; also, documentation of water rights and secondary water shares.
- 6. A description of the size and location of sanitary sewer and stormwater drain lines and subsurface drainage.
- 7. A description of those portions of the property which are included in the most recent flood insurance rate maps prepared by FEMA.
- 8. The total acreage of the entire tract proposed for subdivision.
- 9. Proposed changes to existing zoning district boundaries or zoning classifications or conditional use permits, if any.

- 1. A clear plan for the storm water drainage.
- 2. Easements for any public storm water drainage system components.
- 3. Are the Low-Impact Development requirements of the need to retain the 80th percentile and detail the 100-year 24-hour storm event being met?
- 4. Do the individual lots drain independently? Lots are not allowed to drain onto the neighboring lots without drainage easements.
- 5. Does the plan show how much impervious surface the project is adding?
- 6. Does the plan delineate FEMA flood risk zones or conservation easement areas?
- 7. Does the plan dedicate a right of way for storm drainage conforming substantially with the lines of any natural watercourse or channel, stream, creek, irrigation ditch or floodplain that enters or traverses the subdivision?
- 8. Does the plan dedicate acceptable rights of way for any pipe, conduit, channel, and retention or detention area?

PL-5 Preliminary Plat Storm Water Review/Checklist

When reviewing a Preliminary Plat Submittal, use the following checklist of criteria while checking for approval.

- 1. The preliminary plat shall be clearly and legibly drawn with approved waterproof drawing ink at a scale not less than one inch equaling 100 feet. The plat shall be so drawn that the top of the sheet is either north or east, whichever accommodates the drawing best. Dimensions shall be in feet and decimals thereof and bearings in degrees, minutes and seconds.
- 2. The following information shall be included on the preliminary plat:
 - a. All documents listed in SOP PL-4 Schematic Storm Water Review/Checklist
 - b. A vicinity sketch at a scale of not less than 1000 feet to the inch which defines the location of the subdivision within the City.
 - c. The name of the subdivision. Such subdivision name shall not duplicate or nearly duplicate the name of any subdivision in the City or in the incorporated and unincorporated area of Davis County.
 - d. The name and address of the subdivider and his or her agent, if applicable;
 - e. If the subdivider is represented by an agent, there shall be a statement from the recorded owner authorizing the agent to act;
 - f. The date, north point, written and graphic scales
 - g. A legal description to define the location and boundaries of the proposed subdivision;
 - h. The location, names and existing widths of adjacent streets;
 - i. The names and numbers of adjacent subdivisions and the names of owners of adjacent unplatted land;
 - j. The contours, at one-foot intervals, for predominant ground slopes within the subdivision between level and five percent, and two-foot contours for predominant ground slopes within the subdivision over five percent. Such contours shall be based on Davis county PRELIMINARYPLATREQUIREMENTS.doc8/26/2020 datum. The closest City survey monument shall be used and its elevation called out on the map. Survey monument information shall be obtained from the Davis County Surveyor or City Engineer;
 - At the discretion of the City, a grading plan showing, by appropriate graphic means, the proposed grading of the subdivision. Contours should be consistent with Section 12-6-030(2)(j) Proposed subdivisions located in the Foothill Zone shall comply with requirements of Chapter 30 in the Farmington City Zoning Ordinance;
 - I. The location of all isolated trees worthy of preservation with a trunk diameter of four inches or greater, within the boundaries of the subdivision, and the outlines of groves or orchards;
 - m. The boundaries of areas subject to 100-year flooding or storm water overflow, as determined by the City, and the location, width and direction of flow of all watercourses, including all existing and proposed irrigation and natural runoff channels and courses;

- n. The existing use or uses of the property and the outline of any existing buildings and their locations in relation to existing or proposed street and lot lines drawn to scale;
- o. Location and dimensions of proposed sites to be dedicated or reserved for open space or recreational use;
- p. Any proposed lands to be reserved in private ownership for community use;
- q. The locations, proposed names, widths and a typical cross section of curbs, gutters, sidewalks, and other improvements of the proposed street and access easements;
- r. Layout of all lots, including the average and minimum lot size, lot dimensions, and consecutive numbering;
- s. Preliminary location and size of sanitary sewers, water mains, pressurized irrigation lines, and any other public or private utility;
- t. The dimensions and locations of all existing or proposed dedications, easements and deed restrictions. These shall include easements for drainage, sewerage and public utilities;
- u. Preliminary indication of needed storm drainage facilities with preliminary runoff calculations and location, size, and outlets of the drainage system;
- v. The location of any of the foregoing improvements which may be required to be constructed beyond the boundaries of the subdivision shall be shown on the subdivision plat or on the vicinity map as appropriate;
- w. If it is contemplated that the development will proceed by phases, the boundaries of such phases shall be shown on the preliminary plat along with the estimated construction schedule for each phase;
- x. The words "Preliminary Plat—Not to Be Recorded" shall be shown on the plat.
- 3. Soil Report:
 - a. A soil report, based upon adequate test borings and excavations, prepared by a civil engineer specializing in soil mechanics and registered by the State of Utah, shall be required prior to preliminary approval of any subdivision plat. The soil report shall include, among other things, a description of the soil types and characteristics on the site, describe whether or not ground water was encountered in any of the test borings and at what elevation it was encountered, and shall identify the location of any seismic zones or flood zones on the property.
 - b. If the soil report indicates the presence of critically expansive soils, high water table, the presence of toxic or hazardous waste, or other soil problems which, if not corrected, would lead to structural defects of the proposed buildings, damage to the buildings from the water, premature deterioration of the public improvements, or which would represent a public health hazard, a soil investigation of each lot in the subdivision may be required by the City Engineer. The soil investigation shall recommend corrective actions intended to prevent damage to proposed structures and/or public improvements. The fact that a soil report has been prepared shall be noted on the final plat and a copy attached to the preliminary plat application.

PL-6 Final Plat Approval Storm Water Review/Checklist

When reviewing a Final Submittal, use the following checklist of criteria while checking for approval.

- The Final Plat shall be clearly and legibly drawn with approved waterproof drawing ink at a scale not less than one inch equaling 100 feet. The plat shall be so drawn that the top of the sheet is either north or east, whichever accommodates the drawing best. Dimensions shall be in feet and decimals thereof and bearings in degrees, minutes and seconds.
- Scale: The final plat shall be drawn at a scale of not less than one inch equaling one hundred feet (1" = 100'), and the workmanship on the finished drawing shall be neat, clear and readable.
- 3. Signatures; Small Scale Vicinity Map: The plat shall be signed by all required and authorized parties and the final drawings shall contain all information set forth in this section. The location of the subdivision within the city shall be shown by a small-scale vicinity map on the first sheet. (Ord. 1996-24, 6-19-1996)
- 4. Name, Unit Number: The title of each sheet of the final plat shall consist of the approved name and unit number of the subdivision in bold letters, and if applicable, the words "a Planned Unit Development (PUD)" or "a Conservation Subdivision", followed by the words "Farmington City" at the top of the sheet. (Ord. 2011-10, 5-17-2011)
- 5. Coordinates: Wherever the city engineer has established a system of coordinates, the survey shall use such system. The adjoining corners of all adjoining subdivisions shall be identified by lot and block numbers, subdivision name and place of record, or other proper designation.
- 6. Boundary Survey: An accurate and complete boundary survey to second order accuracy shall be made of the land to be subdivided. A traverse of the exterior boundaries of the tract, and of each block, when computed from field measurements on the ground, shall close within a tolerance of one foot (1') to twenty thousand feet (20,000') of perimeter.
- 7. Monuments, Lines: The final plat shall show all survey, mathematical information and data necessary to locate all monuments and to locate and retrace all interior and exterior boundary lines appearing thereon, including bearing and distance of straight lines, and central angle, radius and arc length of curves, and such information as may be necessary to determine the location of the beginning and ending points of curves.
- 8. Dedications, lots: All lots, blocks and parcels offered for dedication for any purpose shall be delineated and designated with dimensions, boundaries and courses clearly shown and defined in every case. The square footage of each lot shall be shown. Parcels offered for dedication other than for streets or easements shall be designated by letter. Sufficient linear, angular and curve data shall be shown to determine readily the bearing and length of the boundary lines of every block, lot and parcel which is a part thereof. Sheets shall be so arranged that no lot is split between two (2) or more sheets, and wherever practicable, blocks in their entirety shall be shown on one sheet. No ditto marks shall be used for lot dimensions. Lot numbers shall begin with numeral "1" and continue consecutively throughout the subdivision with no omissions or duplications. When a subdivision is developed in phases, the phase number shall precede each lot number. For example, phase 2 would be numbered 201, 202, 203, etc.
- 9. Right of Way Lines: The plat shall show the right of way lines of each street, and the width of any portion being dedicated, and widths of any existing dedications. The widths and locations of adjacent streets and other public properties within fifty feet (50') of the subdivision shall be

shown with dotted lines. If any street in the subdivision is a continuation or an approximate continuation of an existing street, the conformity or the amount of nonconformity of such street to such existing streets shall be accurately shown.

- 10. Street Names, Numbers: All streets within the subdivision shall be assigned a name. Numerical names are preferred. Streets which have an alphabetic name shall also be assigned a coordinate reference number which conforms to the numbering system adopted by the city. All numbering shall be accomplished by the city building official.
- 11. Easements: The side lines of all easements shall be shown by fine dashed lines. The widths of all easements and sufficient ties thereto to definitely locate the same with respect to the subdivision shall be shown. All easements shall be clearly labeled and identified.
- 12. High Water Lines: If the subdivision is adjacent to a waterway or any other area which is subject to flooding, the plat shall show the line of high water with a continuous line and shall also show with a fine continuous line, any lots subject to inundation by a 100-year flood.
- 13. Boundary Identification: The plat shall show fully and clearly stakes, monuments and other evidence indicating the boundaries of the subdivision as found on the site. Any monument or bench mark that is disturbed or destroyed before acceptance of all improvements, shall be replaced by the subdivider under the direction of the city engineer. The following required monuments shall be shown on the final plat:
- 14. The location of all monuments placed in making the survey, including a statement as to what, if any, points were reset by ties;
- 15. All right of way monuments at angle points and intersections as approved by the city engineer. (Ord. 1996-24, 6-19-1996)
- 16. Identification; Certificates: The title sheet of the map shall show the name of the engineer or surveyor, the scale of the map and the number of sheets. The following certificates, acknowledgments and description shall appear on the title sheet of the final maps, and such certificates may be combined where appropriate: (Ord. 2010-20, 5-18-2010)
 - a. Registered land surveyor's "certificate of survey";
 - b. Owner's dedication certificate;
 - c. Notary public's acknowledgment for each signature on the plat;
 - d. A description of all property being subdivided with reference to maps or deeds of the property as shall have been previously recorded or filed. Each reference in such description shall show a complete reference to the book and page of records of the county and commence from section corners of known location, bearing and distance. The description shall also include reference to any vacated area with the vacation ordinance number indicated; (Ord. 1996-24, 6-19-1996)
 - e. Blocks for authorized signatures of the planning commission, city engineer, respective irrigation water district, Central Davis sewer district, city attorney and city council shall be provided along the bottom or right side of the plat. A block for the Davis County recorder shall be provided in the lower right corner of the plat. Additionally, for any plat that has gas pipelines traversing its boundaries, the plat shall have a signature block for each affected gas pipeline company. (Ord. 2015-16, 5-26-2015)
 - f. Such other affidavits, certificates, acknowledgments, endorsements and notarial seals as are required by law, by this title or by the city attorney;
 - g. Prior to recordation of the plat, the subdivider shall submit a current title report to be reviewed by the city attorney. A "current" title report is considered to be one which is prepared and dated not more than thirty (30) days before the proposed recordation of the final plat.

- 17. Soil Report: A note shall be placed on the final plat indicating that a soil report has been prepared and submitted to the city for the proposed subdivision in accordance with the provisions of this title.
- 18. Land Reserved in Private Ownership: When a subdivision contains lands, which are reserved in private ownership for community use, the subdivider shall submit with the final plat, the name, proposed articles of incorporation and bylaws of the owner or organization empowered to own, maintain and pay taxes on such lands.
- 19. Addresses: An address shall be placed on each lot shown on the final plat. Addresses shall conform to the established grid system for Davis County and shall include optional addresses for corner lots. (Ord. 1996-24, 6-19-1996)
- 20. The following information shall be included on the final plat:
 - a. All documents listed in SOP PL-3 Preliminary Plat Storm Water Review/Checklist
 - b. <u>Hydrological Study</u>: Design will consider pervious and impervious areas of the proposed development or redevelopment under the 80th percentile storm event. <u>As of 2020 the 80th percentile storm event is 0.49" in 24-hours for Farmington City</u>. Calculations will need to be completed and submitted to the City documenting the design parameters of the LID facilities.
 - <u>Water Quality Study:</u> Utah Department of Water Quality A Guide to Low-Impact Development Within Utah Appendix B provides a Storm Water Quality Report Template. This must be completed prior to approval of the development or redevelopment. Additional items such as proposed site-specific pollutants, distance of LID BMP to the nearest State Water, and water quality controls proposed prior to retention are to be included.
 - d. <u>Long-Term Storm Water Management Plan & Agreement:</u> The property owner is required to work with the City Engineer, or his/her designee, to create a Long-Term Storm Water Management Plan (LTSWMP) and follow its requirements. All onsite LID facilities will be owned and maintained by the property owner, unless the City agrees otherwise. The facilities will need to be designed in a way that allows the City to access, inspect and possibly maintain them.

PL-7 Pre-Construction Meetings

A meeting will be held with identified stakeholders prior to any dirt disturbance.

Although the stakeholders will vary per project, here is a list of common stake holders:

- 1. Owner/Developer of the project
- 2. General Contractor/ Site Superintendent
- 3. Farmington City representatives of the following departments:
 - a. Engineering
 - b. Planning
 - c. Streets
 - d. Water
 - e. Storm Water
 - f. Inspector
 - g. As needed other departments will be required
- 4. Central Davis Sewer District Representative
- 5. Secondary Water representative from either:
 - a. Benchland
 - b. Weber Basin
- 6. As needed other Stakeholders (i.e. power, gas)

The following items will be discussed pertaining to storm water:

- A Storm Water Pollution Prevention Plan (SWPPP) which addresses the necessary elements required by the Utah Pollutant Discharge Elimination System (UPDES) permit shall be submitted prior to any ground disturbance.
- Notice of Intent (NOI) must be filed and a copy sent to the Brent White before any ground disturbance on site.
- A City permit of \$135.00 and bond of \$700.00 + \$1,100.00 per acre, (not to exceed \$4,000.00) will be required as part of the SWPPP plan approval. Brent will tag for violations. If violation is not resolved within 24 hours a stop work order will be issued. A fine of \$300.00 will be taken out of bond for a stop work order.
- Erosion and sedimentation control BMP's from the SWPPP shall be installed BEFORE construction begins. BMP placement will be inspected prior to construction, coordinate with Brent White 801-939-9286 for this inspection.
- A SWPPP sign at the entrance of the site containing a copy of the SWPPP, NOI, and permit number must be installed at an easily accessible location.
- Keep a copy of the SWPP plan on site at all times.
- The SWPPP and site maps are living documents and will need to be updated as the site conditions change.

- Permittee will maintain documentation of weekly BMP inspections and maintenance logs included within the SWPPP.
- A proper construction entrance shall be maintained daily. Any trash or debris tracked onto a public road shall be removed and swept daily.
- Provide inlet protection before the storm drain is tied into the existing system. The developer shall maintain the inlet protection until the State signs off on the project.
- Provide a posted concrete washout area. Concrete washout area shall be contained. Inflatable pools are not allowed. Provide a washout for masonry, stucco and paint.
- Portable toilets, trash receptacles, and construction materials shall be placed outside of public rightof-way.
- Concrete removal debris, building materials, gravel, sod, etc., shall <u>not</u> be stockpiled in the public right-of-way.

Once the project is complete, a Notice of Termination (NOT) shall be filed with the state prior to the storm water bond being released.

PL-8 Storm Water Pollution Prevention Plan (SWPPP) Documentation

SWPPP documentation is to be kept by the contractor on site for the duration of the project. This includes at least the following:

- 1. A SWPPP sign with either the UPDES number or Farmington City Land Disturbance Permit number.
- 2. Notice of Intent (NOI) when applicable
- 3. Up to date site plan showing the current locations of Best Management Practices (BMPs)
- 4. Weekly or Bi-Weekly inspection documentation.

Farmington City will keep the hard copy of the Land Disturbance permit for three years after the project has completed.

PL-9 Land Disturbance Permitting City SWPPP and State SWPPP

Farmington City requires a Land Disturbance Permit with all ground disturbances per the municipal code 16-3-010.

The SWPPP permitting is broken down into two different categories, State SWPPP Permit and City SWPPP Permit. Farmington City has 3 different applications for these categories, State SWPPP with a storm water bond, City SWPPP with a storm water bond, and City SWPPP without the bond. The requirements for each permit are listed below.

The State SWPPP with a storm water bond is needed when:

- 1. Building a commercial or industrial building
- 2. Developing a subdivision
- 3. Building a home on a lot that's size is 1 acre or more.
- 4. Building on a lot that was previously part of a subdivision that had a State Permit.
- 5. Changing the natural grade of an acre or more.

The City SWPPP with a storm water bond is needed when:

- 1. Building a home on a lot that's size is less than 1 acre, and that was not part of a subdivision that had State Permit previously.
- 2. Disturbing the ground for an addition or any permanent structure.
- 3. Building a pool.
- 4. Changing the natural grade of less than 1 acre.

The City SWPPP without a storm water bond is needed when:

1. Building a home in a subdivision that is already covered by a State SWPPP.

A site plan will be required with each of these permit applications for approval. The site plan is inspected to ensure the following items are shown:

- 1. Elevations are shown or drainage arrows are being used to show the flow of storm water.
- All storm water and dirt will be kept on site during construction until final landscaping is done. The General Contractor will be held responsible for keeping dirt/mud on site during bad weather and for cleaning up after subcontractors.
- 3. The grade away from foundation walls shall fall a minimum of 6 inches within the first 10 ft. (5%)
- 4. Street curb and gutter will be inspected and cleaned of all mud and dirt at the end of every day.
- 5. Gravel bags (or equivalent BMP) to be placed and maintained around any storm drain inlet adjacent to or immediately downstream from site during construction,
- 6. Berms or swales may be required along property lines to prevent storm water flow onto adjacent lots. Final grading shall blend with adjacent lots.
- 7. A lined concrete washout area must be provided at the site for all concrete, paint, stucco, or masonry work. Washout on the ground is prohibited.

PL-10 Floodplain Development Permit

The Floodplain Development Permit is the mechanism by which our community evaluates any and all impacts of activities proposed within our regulated floodplains. All activities must be in compliance with the Floodplain Damage Prevention Ordinance of the presiding jurisdiction, whether local, regional or statewide. The National Flood Insurance Program provides flood insurance to individuals at much lower premiums than could otherwise be purchased through private insurers, and makes certain federal funds are available to communities. In order for citizens to be eligible for the national flood insurance rates, or for communities to receive certain kinds of federal funds, the community must agree to meet minimum floodplain standards. This application packet is a tool to ensure that the activities in our community comply with the Floodplain Damage Prevention Ordinance Any party undertaking development within a designated floodplain must obtain a floodplain development permit prior to the work commencing. FEMA defines development in Title 44 of the Code of Federal Regulations part 59.1 as: Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filing, grading, paving, excavation or drilling operations or storage of equipment or materials. Other human activities that are considered development include but are not limited to: alterations of a structure through additions, demolition and remodeling, fences, retaining wall, moving/placement of remanufactured or mobile homes, campgrounds, storage of equipment, vehicles or materials (storage yards, salvage yards).

General Provision of the Floodplain Development Permit Terms

- 1. No work may start until a permit has been issued.
- 2. The permit may be revoked if:
 - a. Any false statements are made herein;
 - b. The effective Flood Insurance Rate Map has been revised;
 - c. The work is not done in accordance with the Floodplain Damage Prevention Ordinance of the presiding jurisdiction or other local, state and federal regulatory requirements.
 - d. The work is different than what is described and submitted to the community as part of the Floodplain Development Permit application.
- 3. If revoked, all work must cease until permit is reissued.
 - a. If the permit cannot be reissued, applicant acknowledges that they will be responsible to correct the issue which may require removal of any development that may have occurred.
- 4. Development shall not be used or occupied until the project has received final inspection, a final elevation and approval by the community.
- 5. The permit will expire if no work has commenced within 3 months of issuance and by the expiration date noted on the permit.
- 6. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal regulatory requirements and acknowledges that it is their responsibility to ensure that all necessary permits are obtained. a. This includes but is not limited to documentation showing compliance with the endangered species act.

7. Applicant hereby gives consent to the local Floodplain Administrator and his/her representative (including state and federal agencies) to make reasonable inspections required to verify compliance. 8. Applicant acknowledges that the project will be designed to minimize any potential drainage onto surrounding properties and will be responsible for any drainage issues that may arise.

The following documents may be required:

- 1. Tax assessor map
- 2. Maps and/or plans showing the location, scope and extent of development
- 3. Floodproofing Certificate: Certificate and supporting documentation used to provide the certification
- 4. Documentation showing compliance with the Endangered Species Act
- 5. No-Rise Certificate: Certificate and supporting documentation used to provide the certification
- 6. Elevation Certificate
 - a. Constructional Drawing
 - b. Building Under Construction
 - c. Finished Construction
- 7. Grading plans
- 8. Detailed hydraulic and hydrology model for development in a Zone A
- 9. Conditional Letter of Map Revision (CLOMR)
- 10. Structure valuation documentation
- 11. Non-conversion agreement: Required for all structures that are constructed with an enclosure
- 12. Wetland Permit from the U.S. Army Corps of Engineers
- 13. Copies of all federal, local and state permits that may be required.
- 14. Manufactured home anchoring certificate: Certificate and supporting documentation used to provide the certification
- 15. Other documents deemed necessary by the Floodplain Administrator

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