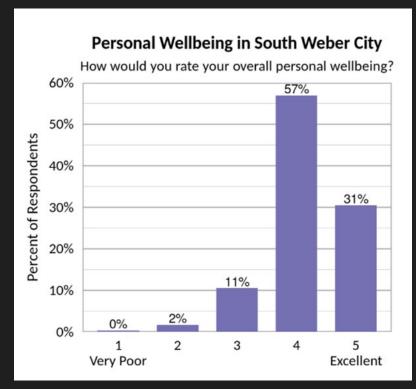
CC 2025-08-26 Intern Capstone Project

City Council Presentation

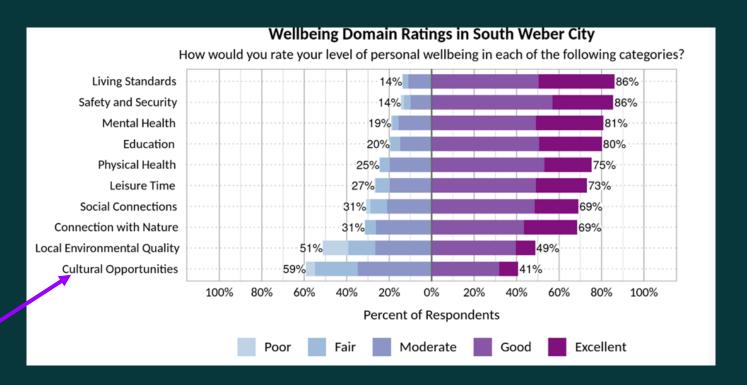
No presentation is good without some jokes.

South Weber is THRIVING





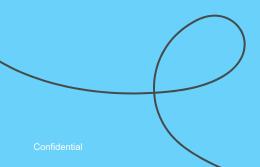
Lack of Cultural Opportunities



Confidential

What is South Weber's Identity?

"Country Comfort, City Convenience"



"The Hidden Gem"



At the mouth of Weber Canyon, the Weber River rushes into the valley. Over years of erosion the river has carved out a "mini valley" on the Wasatch front. Nestled in a narrow strip of land between the south bluff and the Weber River is the "Hidden Gem" of the Wasatch Front – South Weber City. With the bluff to the south, the river to the north, and mountains to the east, the valley is tucked away from the surrounding urban sprawl.

This geography limits rapid expansion, preserving its small-town heritage. While South Weber enjoys a serene small-town environment perfect for families, it's just moments away from the big city amenities of its neighbors. Residents and visitors experience the best of both worlds: easy access to dining, shopping, arts, and employment opportunities—yet always returning to a peaceful community where neighbors know your name.

With a focus on Family, Heritage and Heart, combined with its unique geography, South Weber truly is "The Hidden Gem" of the Wasatch Front.

As we incorporate this slogan and promote South W eber as

"The Hidden Gem"

our residents will feel a greater sense of South W eber's cultural identity.

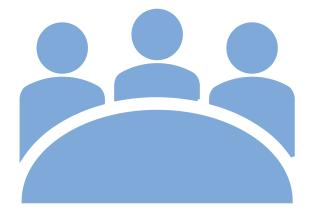
2024-2025 Storm Water Audit Quick Summary

AUGUST 26, 2025

About the Audit

The audit consisted of:

- Submittal of pre-audit documentation
- Interviews with City staff (virtual meetings)
- **Extensive** document and file review
- Construction and municipal facility inspections (in-person)



Timeline



July 23, 2024 - City was notified that it, as an MS4, was being audited by the State (Division of Water Quality)



August 2024 - The audit was conducted



July 2025 - The City finished addressing the Audit Action Items and State Closed out the Audit

Audit Findings

- Audit Report received Nov. 2024
- 73 Deficiencies noted
- City had 6 months to remedy deficiencies

Deficiency No.	Audit Section	Permit Part(s)	Deficiency
1	Storm Water Management Plan (SWMP)	4.1.3.2. & 4.1.3.3.	The permittee's SWMP document did not indicated the updated person(s) (or position(s)) responsible for implementing or coordinating BMPs contained in the document.
2	Storm Water Management Plan (SWMP)	4.1.3.2. & 4.1.3.3.	The permittee's SWMP did not include all agreements, contracts, and/or memorandum of understanding (MOUs) between entities that affect the implementation and operation of the SWMP.
3	Storm Water Management Plan (SWMP)	4.4/4.1.2	The permittee was not reviewing and updating (as necessary) the SWMP document at least annually.
4	Storm Water Management Plan (SWMP)	4.4/4.1.2	The permittee was not evaluating and documenting permit compliance (or non-compliance) with the schedules identified in their SWMP.
5	Storm Water Management Plan (SWMP)	4.4/4.1.2	The permittee had not conducted an overall assessment of the goals contained in their SWMP and effectiveness of their BMPs.
6	Storm Water Management Plan (SWMP)	3.3	The permittee was not targeting areas contributing to nitrogen and phosphorous and providing education on/to targeted sources.
72	MS4 Facility Evaluation: South Weber Public Works	4.2.6.4., 4.2.6.5.1., 4.2.6.6.1., 4.2.6.10.	The following MS4 permit deficiencies were identified based on this site visit: • A SWPPP was not developed or implemented for this high priority facility (Small MS4 Permit Part 4.2.6.4., "The Permittee shall update the SWMP to include a list of "high priority" facilities according to 4.2.6.3 and prepare a Storm Water Pollution Prevention Plan (SWPPP) for each facility within 180 days from the effective date of this permit. Each "high priority" facility shall implement a SWPPP outlining measures to prevent pollutants from entering the storm drain system from each of these facilities and contain an inspection schedule of the facility."). • Inspector did not provide an inspection report with a timeline for correction, or documentation that deficiencies were corrected. The inspector did not correct repeat deficiencies (Small MS4 Permit 4.2.6.5.1., "The monthly inspections must be tracked in a log for every facility and records must be kept with the SWMP document. The inspection log should also include any identified deficiencies and the corrective actions taken to fix the deficiencies.") • O&M practices observed were not following developed O&M SOPs, and were not protective of water quality (Small MS4 Permit 4.2.6.6.1., "SOPs shall address the following practices to ensure they are protective of water quality"). See photos 8-9, 16. • Inspector was not knowledgeable regarding pollution prevention and good housekeeping practices (Small MS4 Permit 4.2.6.10., "The Permittee shall require that all employees, contracted staff, and other responsible entities that have primary operation, or maintenance job functions that are likely to impact storm water quality receive annual training.").
73	MS4 Facility Evaluation: South Weber Fire Department	4.2.6.2., 4.2.6.3., 4.2.6.5.2., 4.2.6.6.1., 4.2.6.10.	The following MS4 permit deficiencies were identified based on this site visit: • The city had not evaluated this site to determine whether it should be classified as "high priority." • Small MS4 permit part 4.2.6.3., "Based on the assessment required in Part 4.2.6.2., the Permittee must identify as "high-priority" those facilities or operations that have: Pollutants stored at the site; Improperly stored materials; Potential pollutant-generating activities performed outside (e.g. changing automotive fluids) Close proximity to fresh water and water bodies, including but not limited, to streams, canals, rivers, ponds and lakes; Potential to discharge pollutant(s) of concern to impaired water")

Audit Hot Spots

Standard Operating Procedures

23 SOPs needed to be updated or created

Inspections

Need to be more frequent and documented

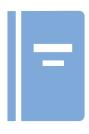
Training

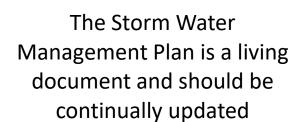
Additional training needed for all staff

SWMP

Needed to be updated and adopted

Major Take-Aways







Tasks are recurrent, rarely one-time occurances



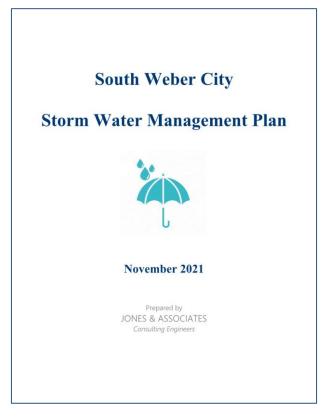
Compliance requires considerable dedication of resources (time and money)

2025 Storm Water Management Plan Update

AUGUST 26, 2025

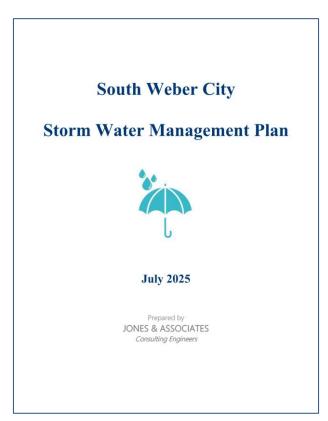
Why the Update

- During the Storm Water Audit, deficiencies in the 2021 Storm Water Management Plan (SWMP) were noticed.
- The State Permit had also been updated, and the SMWP required updates to meet the new permit requirements.



What Changed

- Updated to meet requirements of current permit
- Contact information with defined roles and responsibilities updated/added
- Expanded on ways City will reduce nitrogen and phosphorus
- Each Minimum Control Measure was updated to include additional information, updated goals, and training
- All of the updated/created SOPs and checklists were added to the SWMP.



Annual Storm Water Training for City Council

Introduction

What is the Storm Water Management Program?

 A Storm Water Management Program Plan (SWMP) is a "written plan that is used to describe the various control measures and activities the Permittee will undertake to implement the storm water management plan."

Why is it required?

- Required by the EPA and the Utah Division of Water Quality (federal, state)
- Provides guidance and "measurable" goals

Why are we here?

 Annual training is required for ALL who deal with storm water related issues

South Weber City Storm Water Management Plan **July 2025** Prepared by JONES & ASSOCIATES Consulting Engineers

Introduction



SWMP Definitions

Minimum Control Measure (MCM)

 "Control Measure" refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to Waters of the State.

Best Management Practices (BMPs)

- Official Definition: "...schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage."
- Simply Put: BMPs are actions or items that prevent or reduce water pollution.
- Examples?
 - ordinances, standard operating procedures, street sweeping, silt fencing, inlet protection

SWMP Definitions

Permittee/MS4 (Municipal Separate Storm Sewer System)

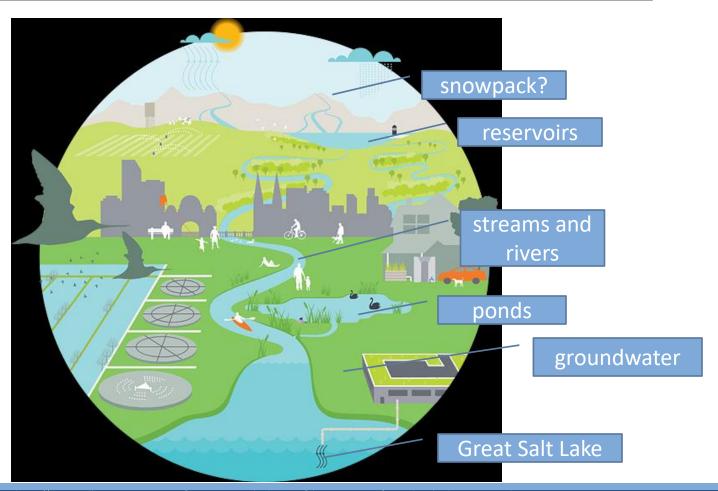
South Weber City

Waters of the State

- Official Definition: "... all streams, lakes, ponds, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private which are contained within, flow through, or border upon this state or any portion thereof, except bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife which shall not be considered to be 'Waters of the State' under this definition ('UAC' R317-1-1)."
- Simply Put: just about any water conveyance or impoundment, including groundwater

SWMP Definitions

Utah Waters of the State





SWMP Contents

Six Minimum Control Measures (MCMs)

- 1. Public Education and Outreach
- 2. Public Involvement and Participation
- 3. Illicit Discharge Detection and Elimination
- 4. Construction Site Storm Water Runoff Control
- 5. Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)
- 6. Pollution Prevention and Good Housekeeping

Each MCM section contains tasks, goals, and deadlines

For each MCM, there are Action Items



Public Education and Outreach - General

- Provide and participate in a variety of stormwater education and outreach programs designed to build general awareness, reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts, and encourage the public to participate in stewardship activities
- Educate and reach a variety of audiences including residents, institutions and commercial facilities, developers and contractors (construction)
- Davis County Storm Water Coalition provides some public outreach and education





Public Education and Outreach - Examples

- Develop program for installation of curb markers
 - Scout project
 - Community service
 - Earth Day activity
 - School or club project











Public Education and Outreach – Examples/Tasks

- Add storm water info in utility bills or newsletter
- Place storm water information on city's website



SWMP



Hotline



Link to ordinance Add a link to the Storm Water website

STORM WATER

Storm water is just as it sounds: water from storm events. Any precipitation that falls from the sky, including rain, hail, and snow, is considered storm water.

Storm Water runs off of hard surfaces such as concrete, asphalt, and other hard impervious areas and does not have the ability to soak into the ground. As a result, water flows off these surfaces and collects in gutter or basins which run directly into the City's storm drains. These drains carry the water as well as any sediment, garbage, and toxic chemicals suspended in the stormwater directly to our lakes and streams. Most drainage systems do not provide treatment, so preventing contamination of stormwater is crucial to ensure that pollutants do not enter our waterways.

South Weber City Storm Water Management Plan

Update link to new 2025 SWMP after adopting it tonight



CONTACT INFORMATION

Storm Water Department: 801-479-3177 ext. 2218

Davis County Environmental Health Services Division: 801-525-5100

Wasatch Integrated Waste Management District: 801-614-5600

Weber Basin Water Conservancy District: 801-771-1677

Utah Botanical Center



Easy ways you can help prevent water pollution





Public Education and Outreach – Other Tasks

- Have a Registered Storm Water Inspector (RSI) on staff
- Develop and maintain Standard Operating Procedures (SOPs)
- Training for employees annually
- Document outreach materials and efforts



MCM 2 – Public Involvement

Public Involvement and Participation - General

- Implement a program that complies with applicable State and Local public notice requirements
- Conduct opportunities for public involvement and participation, a minimum of two (2) times annually
 - advisory panels
 - public hearings
 - watershed committees
 - stewardship programs
- Involve potentially affected stakeholder groups
 - commercial and industrial businesses
 - trade associations
 - environmental groups

- environmental activities
- volunteer opportunities
- other similar activities
- homeowners' associations
- education organizations



MCM 2 – Public Involvement

Public Involvement and Participation

- Similar to Public Education MCM, but more aimed at the process
- Post SWMP on website and/or at city hall (available for review)
- Keep documentation





Illicit Discharge Detection and Elimination - General

- Revise, implement and enforce an Illicit Discharge and Elimination (IDDE) program to systematically find and eliminate sources of non-stormwater discharges from the MS4
- Implement defined procedures to prevent illicit connections and discharges





Illicit Discharge

- Official Definition: "... any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) and discharges resulting from emergency firefighting activities."
- Simply Put: any discharge into the storm drain system or Waters of the State that isn't purely storm water



https://www.durhamnc.gov/2822/Illicit-Discharge-Detection-and-Eliminat



Non-storm water discharges:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs

- Water from crawl space pumps
- Footing drains
- Lawn watering runoff
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Residual street wash water
- Dechlorinated water reservoir discharges
- Discharges or flows from emergency fire fighting activity



Illicit Discharge Detection and Elimination – Tasks

- General Idea:
 - Avoid illicit discharges
 - Locate problem areas
 - Find the source, remove/correct illicit connection or discharge
 - Document actions taken
- Inspect outfalls
- Promote collection of household hazardous waste
 - Spring Cleanup
 - Fall Cleanup
- Publicize hotline for reporting illicit discharges
- Develop SOPs for avoiding, cleaning, tracking spills, responding to public referrals of illicit discharges, etc.
- Conduct IDDE annual training
- Document, document, document





 $\label{lem:https://www.chathamcountync.gov/government/departments-programs-i-z/watershed-protection/illicit-discharge$



https://dem.ri.gov/ri-stormwater-solutions/violations.php



https://lwrd.danecounty.gov/illicit-discharges



https://archive.ena.gov/region00/water/archive/web/html/stormwater-feature.htm

Illicit discharge?
Yeah, that's obvious...









https://www.christiansburg.org/DocumentCenter/View/9552/IDDE-Field-Guide



Paint wash out

MCM 3 – Illicit Discharge



https://www.yorkcountygov.com/910/Illicit-Discharge-Detection-Elimination

Concrete cutting water and concrete wash outs – watch for small projects like fences, sidewalks, and driveways

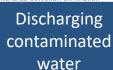






Dumping liquids off of loading dock

https://www.wilmingtonma.gov/stormwater-management/illicit-c





https://sustainablestormwater.org/2011/03/10/stormwater-emergency-response-series-part-1-dumpster-cleanups/

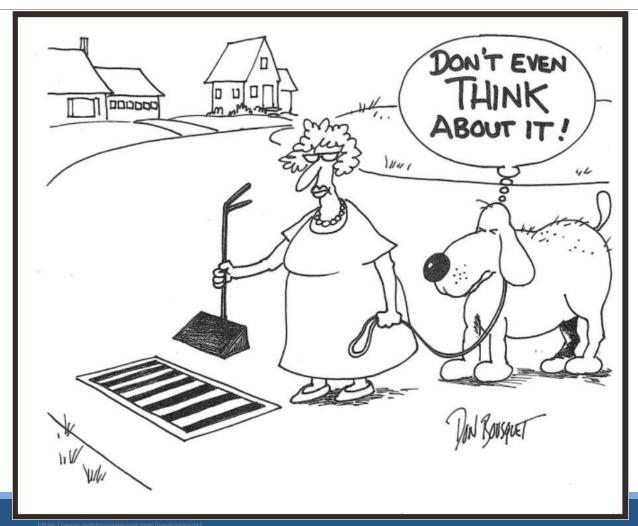
Maybe not so obvious...

Grass clippings in the gutter

Grass clippings dumped in drainage









IF YOU SEE SOMETHING, SAY SOMETHING ™



You are your City's eyes and ears.





Construction Site Storm Water Runoff Control - General

- Revise, implement, and enforce a program to reduce pollutants in any storm water runoff to the MS4 from:
 - construction sites with a land disturbance of greater than or equal to one acre
 - sites less than one acre that are part of a larger common plan of development
- <u>Public and private</u> projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements



Construction Site Storm Water Runoff Control - Tasks

- Revise/enforce ordinances that require the use of erosion and sediment control practices
- Require Storm Water Pollution Prevention Plan (SWPPP)
 - All disturbances greater than 1 acre
 - Disturbances less than 1 acre but part of a Common Plan of Development (i.e. individual building lots)
 - Disturbances in a sensitive area (e.g. floodplain, near wetland, steep slope, highly erosive soils)
- Inspections
 - City responsible for inspecting construction sites monthly
 - City responsible for enforcing SWPPP, ordinances, violations





More tasks...

- Develop SOPs for enforcement of ordinances
- Document and track all enforcement actions
- Develop checklist for SWPPP review
- Conduct pre-construction SWPPP meeting
- Develop procedures for receiving input by public
- Identify priority construction sites
- Develop SOPs for construction site inspection
- Inspect all phases of construction (pre-, during, and post-)
- Perform monthly inspections of all construction sites
- Perform bi-weekly inspections of high-priority sites
- Perform necessary follow-up actions





Have hotline for reporting issues posted at the construction site



https://dnr.wisconsin.gov/topic/Stormwater/learn_more/problems.html





https://www.townofsullivanny.gov/stormwater-management/pages/construction-site-stormwater-runoff-control



Provide annual training

- Registered Storm Water
 Inspectors, building inspectors
- Anyone dealing with construction, building permits

Document reviews, inspections, enforcement



SWPPP COMPLIANCE INSPECTION FORM



	Section (Control of Control of Co											
Project Name:	roject Name: Address:							Date:				
Owner:			Contractor (Gen/Sub):						Start time:			
Site Contact:				Phone:				Stop time:				
UPDES Permit	t #:	Expiration:		Weather: (Circle one	Sunny Cloudy	Snowin Raining	g Other:					
Date of last rai	n event:	Approx. Rainfall Duration: (in):										
Inspected By (Print):			Local Juri	sdiction o	r County:						
Reason for Ins	pection: Sche	duled Complai	nt/Tip Random	1	Receiving	g Waters:						
Inspection Code (circle):	SW sampling SW non- sampling	Inspector Code (circle): 2 - Industrial (circle): 3 - State										
S	WPPP, EROS	ION, SEDIMENT	AND HOUSEK	EEPING	BMP's II	NFORM	ATION		YES	NO	N/A	
1. Is the SWPF a short time)?	PP on site and ac	cessible, or is the SV	/PPP location post	ed in an obv	ious place	and reas	onably acc	cessible (in				
2. Are erosion SWPPP?	control, sediment	control, buffer control	ols and good house	keeping BM	P's installe	ed on the	site as sho	own in the				

Long-Term Storm Water Management in New Development and Redevelopment - General

- Revise, implement, and enforce a program to address post-construction storm water runoff to the MS4 from private and public new development and redevelopment construction sites.
- These water quality considerations do not replace or substitute for water quantity or flood management requirements for new development or redevelopment sites.
- The water quality controls may be incorporated into the design of structures intended for flow control; or water quality control may be achieved with separate control measures.
- The program must apply to private and public development sites.

Low Impact Development (LID)

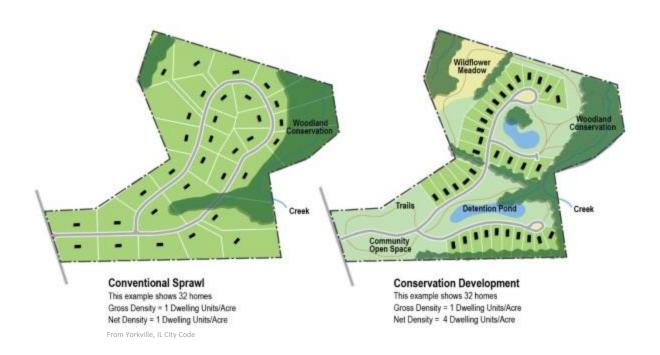
- Official Definition: "... an approach to land development (or re-development) that works with nature to more closely mimic pre-development hydrologic functions."
- Simply Put: structural and non-structural ways to minimize, slow, and/or clean storm water flows
- Examples: minimizing impervious areas, preserving natural features, infiltration basins, rain barrels, permeable pavements

Long-Term Storm Water Management for New Development and Redevelopment - Tasks

- Program must have requirements or standards to ensure that any storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality.
- Non-Structural BMPs (i.e. procedural)
 - Planning (ordinance, SWMP, City Standards)
 - Site-based design
- Develop and define a specific hydrologic method or methods for calculating runoff volumes and flow rates
- Require retention of 80th percentile storm event (~0.5") onsite
- Require a process which requires the evaluation of a Low Impact Development (LID) approach
- Permittees must allow for use of a minimum of five (5) LID practices
- Check feasibility

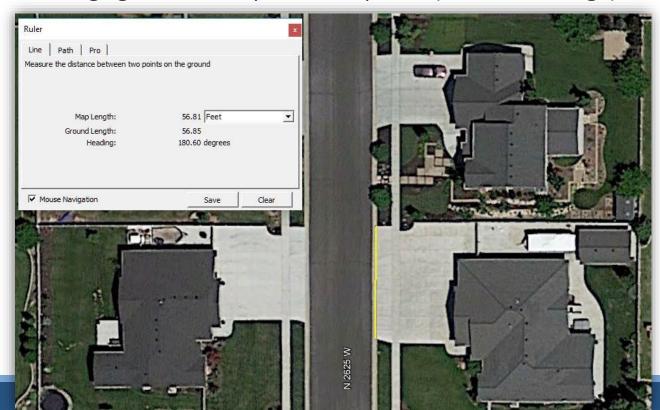
Non-structural example – land planning

Allow cluster subdivisions - leave undisturbed or natural land



Non-structural example - minimize impervious surfaces

- Minimize driveway widths (curb cuts at street) by ordinance
- Encourage gravel and/or permeable pavers (site-based design)



City selected 5 LID practices (structural)



Summary of LID BMPs and Recommendations on Where to Allow from A Guide to Low Impact Development within Utah

https://deg.utah.gov/water-quality/low-impact-development

				Primary Functions			_		١	Where Permitted	1	
LID BMP Category	LID BMP Type	Fact Sheet ID	Removal Effectiveness ¹	Bioretention	Volume Retention	Biofiltration	Maintenance Effort	Residential - Public Roads	Residential - Private Roads	Residential - Multi-family	Commercial	Industrial
Bioretention	Bain Candan	BR-1	high	yes	yes	yes	low-med	no	yes	yes	yes	yes
	Bioretention Cell	BR-2	high	yes	yes	yes	low-med	yes	yes	yes	yes	yes
		BR-3	medium	yes	some	yes	low	yes	yes	yes	yes	yes
	Bioswale	BR-4	med-high	yes	some	yes	low	yes	yes	yes	yes	yes
	Vegetated Strip	BR-5	med-high	yes	varies	yes	medium	no	yes	yes	yes	yes
		BR-6	med-high	yes	yes	yes	med-high	no ²	no ²	no ²	yes	yes
Pervious Surfaces		PS-1	high	yes	yes	some	low-med	no ²	no ²	yes	yes	yes
Infiltration Devices ⁵	Infiltration Basin	ID-1	high	yes	yes	yes	low	yes	yes	yes	yes	yes
		ID-2	high	yes	yes	some	low	yes	yes	yes	yes	no
	Infiltration Trench	ID-3	high	yes	yes	no	low-med	no	yes	yes	yes	no
	Onderground minication danery	ID-4	high	yes	yes	no	low-med	no	yes	yes	yes	yes
Harvest and Reuse	Harvest and Reuse ⁶	HR-1	varies	varies	yes	varies	low	no ²	no²	no ²	yes	yes

Selected Structural Practices

- Bioretention cells
- Bioswales
- Vegetated strips
- Infiltration Basins
 - can be incorporated into detention pond, when designed properly
- Infiltration Trench



and Bioswales







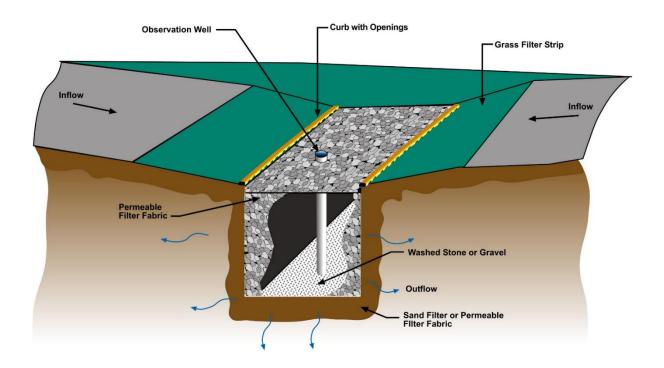
Underground Infiltration Galleries



https://www.fergusonwaterworks.com/product/r-tank-stormwater-modules/



https://www.adspipe.com/stormtech



INFILTRATION TRENCH

Other Tasks

- Develop and adopt ordinances that require long-term postconstruction storm water controls including regulatory and enforcement provisions
- Maintain documentation of how the requirements will protect water quality
- Adopt and implement SOPs for site inspection and enforcement
- Require long-term storm water management agreements for private LID BMPs; inspect during installation, at completion, and every 5 years



And more tasks...

- Plan Review
 - Adopt and implement procedures for site plan review
 - Review plans to ensure they include long-term storm water management measures
- Inventory
 - Create and maintain an inventory of long-term BMPs (public and private)
 - Retention/detention basins, snouts, bioswales, etc.
 - Keep database up-to-date
- Training
 - Provide training suitability, installation, maintenance
 - Maintain documentation



MCM 6 – Good Housekeeping

Pollution Prevention / Good Housekeeping – General

- Implement a program for <u>Permittee-owned or operated facilities</u>, operations and structural storm water controls that includes SOPs, pollution prevention BMPs, storm water pollution prevention plans or similar type of documents, and a training component that have the ultimate goal of preventing or reducing the runoff of pollutants to the MS4 and waters of the state.
 - Public Works Yard
 - City Hall
 - City parks
 - City-owned detention/retention basins
 - Family Activity Center
 - South Weber Fire Station

MCM 6 – Good Housekeeping

Pollution Prevention / Good Housekeeping – General

- All components of the program shall be included in the SWMP document and must identify the department responsible for performing each activity described in this section.
- Develop and maintain an inventory of all such Permittee-owned or operated facilities.

MCM 6 – Good Housekeeping

Pollution Prevention / Good Housekeeping - Tasks

- Develop SWPPP for each "high-priority" permittee-owned or operated facility (PW yard, etc.)
- Perform weekly visual inspections
- Perform quarterly comprehensive inspection of "high-priority" facilities
- Perform quarterly observation of storm water discharge from "high-priority" facilities
- Develop/update SOPs for other city-owned facilities (parks, roads, buildings, etc.)
- Obtain private maintenance contracts (privately owned facilities)
- Follow permitting process for public construction projects (SWPPP, NOI, NOT)
- Provide training
- Document, document, document

SUMMARY

SWMP is a comprehensive plan that covers all facets of the City's storm water program

Requires involvement from City Council to Public Works to the public

Implementation requires time and manpower, both initial and on-going

SUMMARY

Questions?

Discussion

Next Steps