

PERRY CITY WORK SESSION
PERRY CITY OFFICES
January 13, 2022

6:00 PM

OFFICIALS PRESENT: Mayor Kevin Jeppsen presided and conducted the meeting. Council Members Blake Ostler, Nathan Tueller, Toby Wright, Dave Walker and Ashley Young

OFFICIALS ABSENT: None

CITY STAFF PRESENT: Shanna Johnson, City Recorder; Robert Barnhill, City Administrator; Bill Morris, City Attorney; Scott Hancey, Chief of Police; Tyler Wagstaff, Public Works Director; John Oyler, Public Works; Matt Klopfenstein, Public Works; Jake Andrews, Public Works; Taylor Clark, Public Works; Destry Roskelley, Public Works

OTHERS PRESENT: Dana Shuler

ITEM 1: Welcome to Order and Welcome

Mayor Jeppsen welcomed everyone and called the meeting to order.

ITEM 2: Work Session Storm Water Training

Dana Shuler from Jones and Associates presented a training session on Storm Water. See attached slides.

ADJOURNMENT

Mayor Jeppsen closed the work session.

The meeting adjourned at 7:00 p.m.

Shanna Johnson, City Recorder

Kevin Jeppsen, Mayor

Tyra Bischoff, Deputy Recorder

ANNUAL STORM WATER TRAINING FOR PERRY CITY COUNCIL

**January 13,
2022**

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

Perry City

Storm Water Management Plan



November 2021

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)

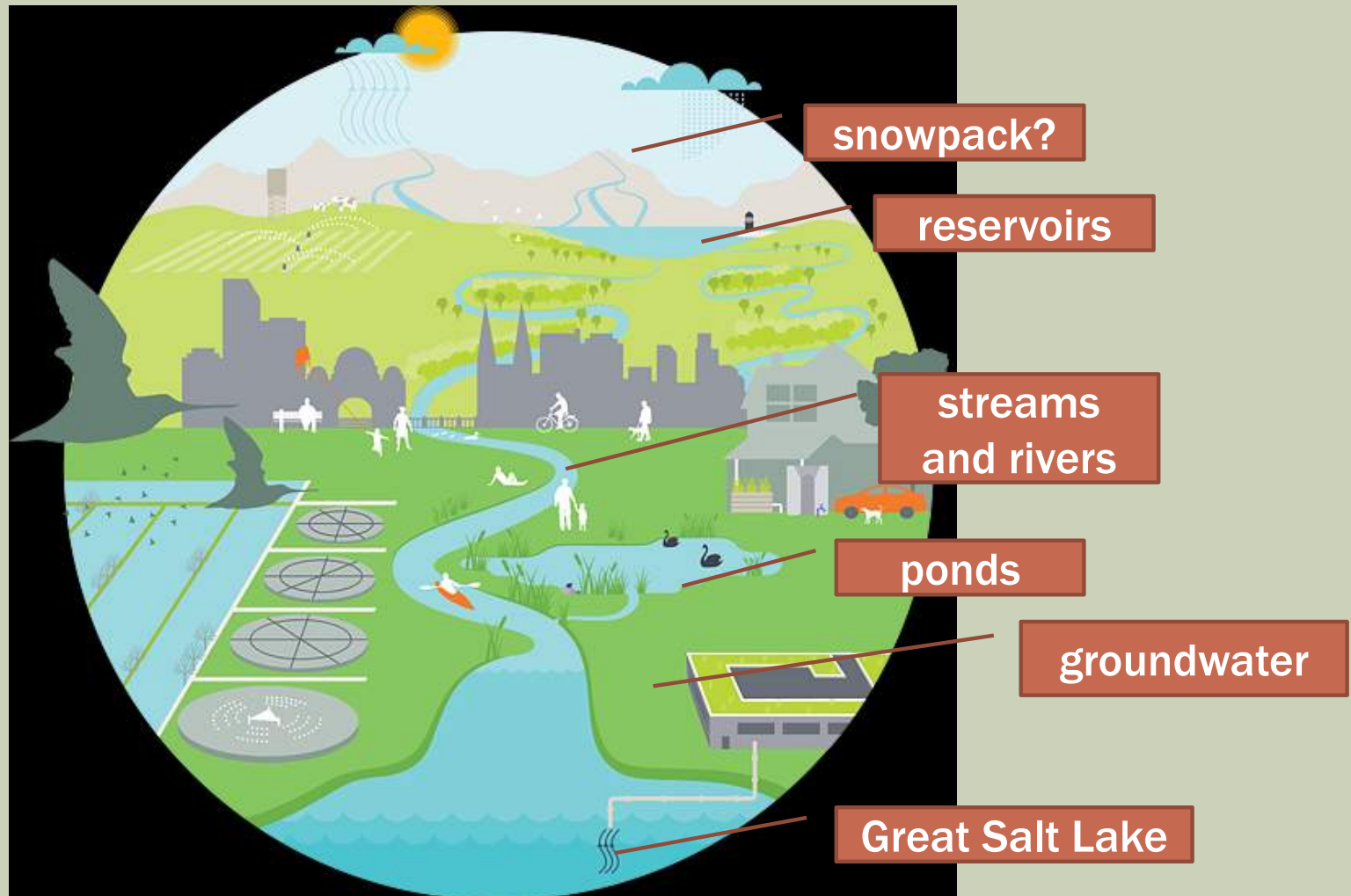
- Official Definition: “...schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, 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)
 - Perry 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

MCM 1 – PUBLIC EDUCATION



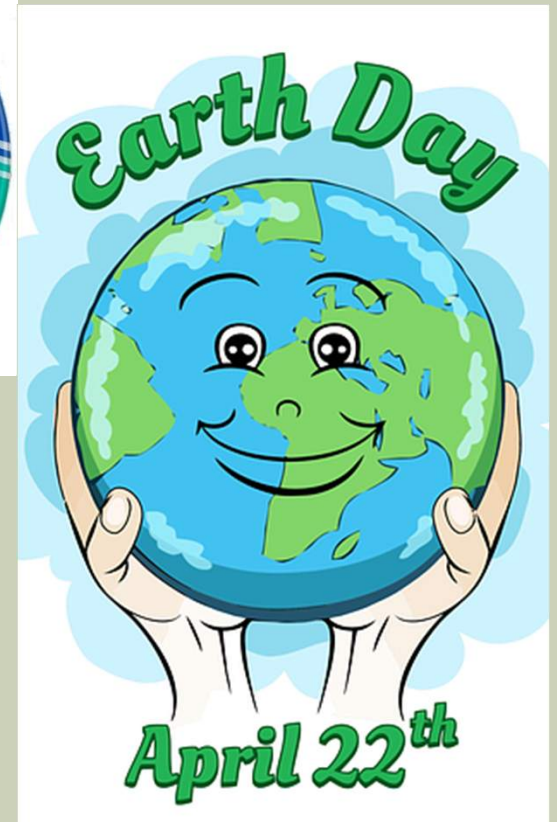
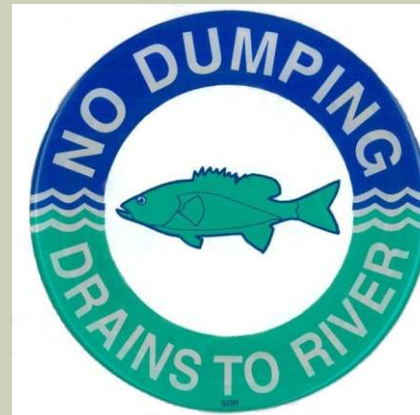
- Public Education and Outreach - General
 - **Provide and participate** in a variety of stormwater education and outreach programs designed to **build general awareness, reduce or eliminate behaviors and practices** that cause or contribute to adverse stormwater impacts, and **encourage the public to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

MCM 1 – PUBLIC EDUCATION



■ Public Education and Outreach - Examples

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



MCM 1 – PUBLIC EDUCATION



■ 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

HOME DEPARTMENTS BUSINESS & TOURISM MAYOR CITY COUNCIL JOBS

PERRY

EST. 1853

Public Works Department

The Perry City Public Works Department has many divisions which include the following:

- Street Maintenance
- Maintenance and Operation of the Culinary Water System
- Maintenance and Operation of the Sanitary Sewer System (including Sewer Lagoon)
- Snow Removal
- Blue Stakes (Identify Water, Sewer and Storm Drain lines)
- Storm Water Management (select for plan) - Taylor Clark taylorclark@perrycity.org
- Illicit Discharge or Other Storm Water Concerns
- Household Hazardous Wastes may be disposed of at the Box Elder County Landfill (information can be found here)

If you wish to contact Public Works, with concerns regarding these department or programs you can reach staff at 435-723-6461 during regular business hours. For after hours assistance call 435-230-1020.

[SUBMIT A WORK ORDER](#)



http://

MCM 1 – PUBLIC EDUCATION



- 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
 - environmental activities
 - volunteer opportunities
 - other similar activities
- **Involve** potentially affected stakeholder groups
 - commercial and industrial businesses
 - trade associations
 - environmental groups
 - 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



MCM 3 – ILLICIT DISCHARGE



- 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



MCM 3 – ILLICIT DISCHARGE



■ 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



MCM 3 – ILLICIT DISCHARGE



■ 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

MCM 3 – ILLICIT DISCHARGE



■ 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

MCM 3 – ILLICIT DISCHARGE



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

MCM 3 – ILLICIT DISCHARGE



Leaking
dumpster



Dumping
liquids off of
loading dock



Discharging
contaminated
water

Maybe not
so obvious...



Grass
clippings in
the gutter



Grass
clippings
dumped in
drainage

MCM 3 – ILLICIT DISCHARGE



Leaking fuel
tank



Chlorinated
swimming
pool water

OF2272 - CB1297
TBCI Colchester, Vt.
12/03/2018 12:18
1.0X
27%
-5.3°
Dist N/A
-73.24867° W
44.53603° N
23.0ft



Illicit
Connection

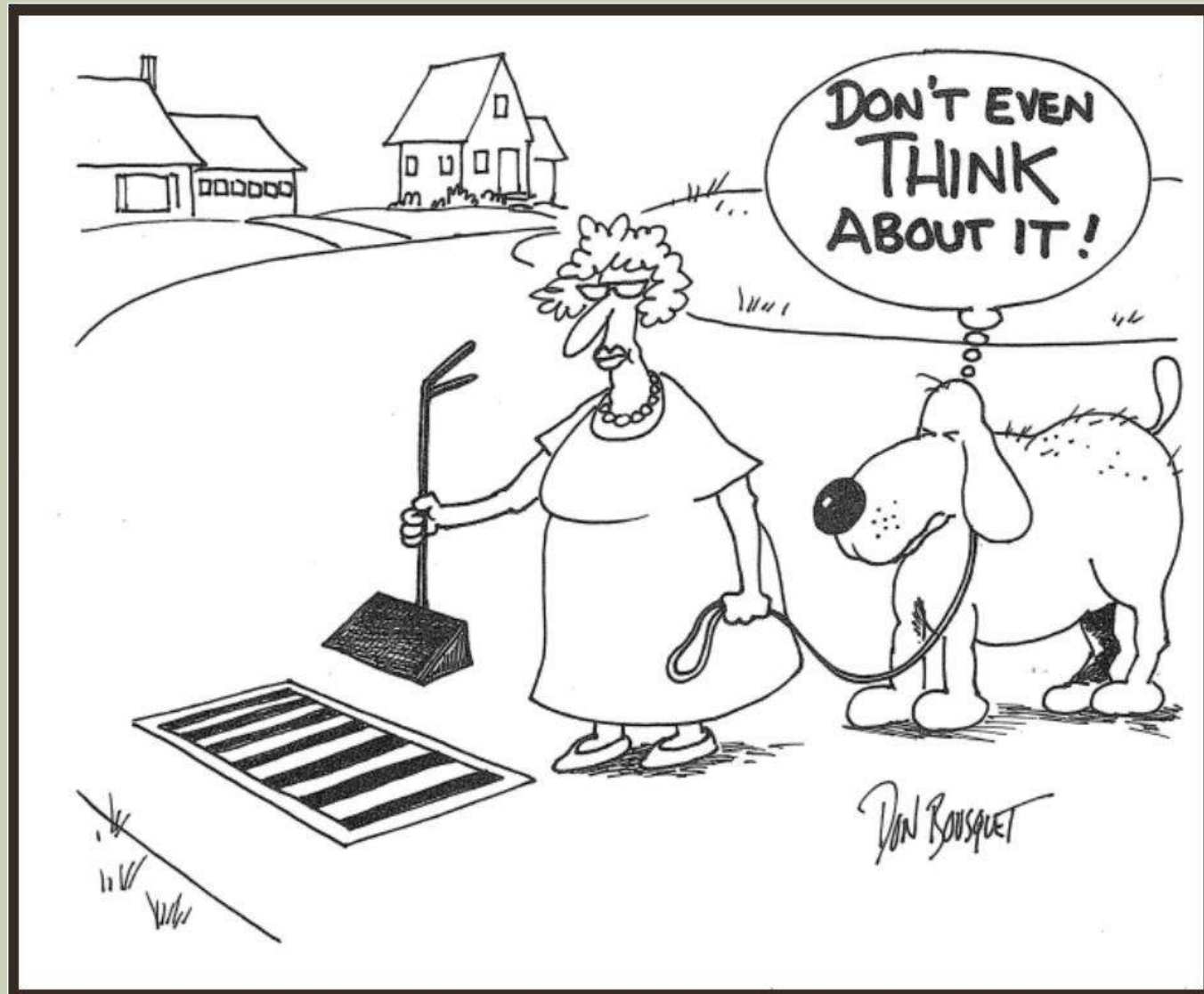
MCM 3 – ILLICIT DISCHARGE



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



MCM 3 – ILLICIT DISCHARGE



MCM 3 – ILLICIT DISCHARGE



IF YOU SEE SOMETHING, SAY SOMETHING™



You are your City's
eyes and ears.



MCM 4 – CONSTRUCTION SITES



- 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
 - Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements

MCM 4 – CONSTRUCTION SITES



- **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



MCM 4 – CONSTRUCTION SITES



■ 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



MCM 4 – CONSTRUCTION SITES



- Have hotline for reporting issues posted at the construction site



SWPPP
A Storm Water Pollution Protection
Permit covers this construction site.
If any Non-Storm Water discharge
or severe vehicle tracking occurs
please call 801-804-4577.




*Rainfall on construction
sites can cause harmful
polluted runoff and
sediment to drain into
local streams.*

MCM 4 – CONSTRUCTION SITES



- Provide annual training
 - Registered Storm Water Inspectors, building inspectors
 - Anyone dealing with construction, building permits
- Document reviews, inspections, enforcement

Updated September 2018

 **SWPPP COMPLIANCE INSPECTION FORM**

Inspection #:

Project Name: Address: Date:

Owner: Contractor (Gen/Sub): Start time:

Contact: Phone: Stop Time:

DES Permit #: Expiration: Weather: Sunny ☐ Cloudy ☐ Raining ☐ Snowing ☐ Other

Time of last rain event: Duration: Approx. Rainfall (in):

Inspected By (Print): Local Jurisdiction or County:

Reason for Inspection: Scheduled ☐ Complaint/Tip ☐ Random ☐ Receiving Waters:

Inspection Code SW sampling ☐ Inspector Code (S) State ☐ 1-Municipal ☐ 2-Industrial ☐ 3-State ☐
Check: SW non-sampling ☐ (check): (L) Local ☐ Type Code (check):

SWPPP, EROSION, SEDIMENT AND HOUSEKEEPING BMP's INFORMATION	YES	NO	N/A
Is the SWPPP on site and accessible, or is the SWPPP location posted in an obvious place and reasonably accessible (in a short time)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are erosion control, sediment control, buffer controls and good housekeeping BMP's installed on the site as shown in the SWPPP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the SWPPP been updated to reflect the current site conditions (modifications dated & initialed on site map, new BMPs on site map, discontinued BMPs crossed off site map, new BMP details & spec's in SWPPP, SWPPP amendment Log, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are on-site inspections being performed and recorded by a qualified person on a weekly or biweekly basis, reporting items required by permit? (Inspector name, qualifications and signature, weather, problems/repairs, corrective action, new BMPs, removed BMPs, discharges, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have all corrective action items from previous inspections been logged, addressed and documented within the time frame allotted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are SW flows entering and leaving the construction site controlled, managed, or diverted around the site? (e.g. buffer zones perimeter controls,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MCM 5 – LONG-TERM SW MGMT



- 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.

MCM 5 – LONG-TERM SW MGMT



■ 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

MCM 5 – LONG-TERM SW MGMT

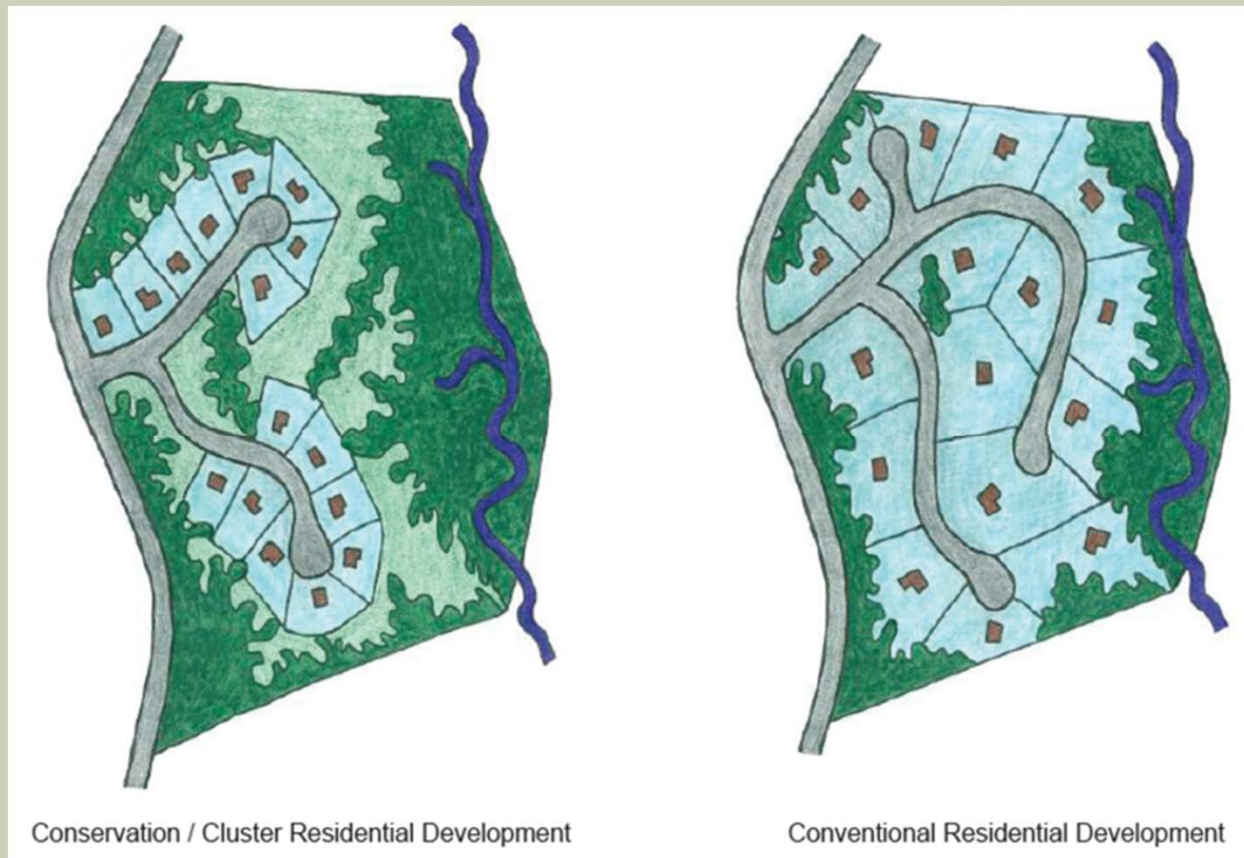


- Long-Term Storm Water Management for New Development and Redevelopment - Tasks
 - Program must have requirements or standards to ensure that any storm water controls or management practices for new development and redevelopment will **prevent or minimize impacts to water quality**.
 - Non-Structural 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

MCM 5 – LONG-TERM SW MGMT



- Non-structural example – land planning
 - Allow cluster subdivisions - leave undisturbed or natural land



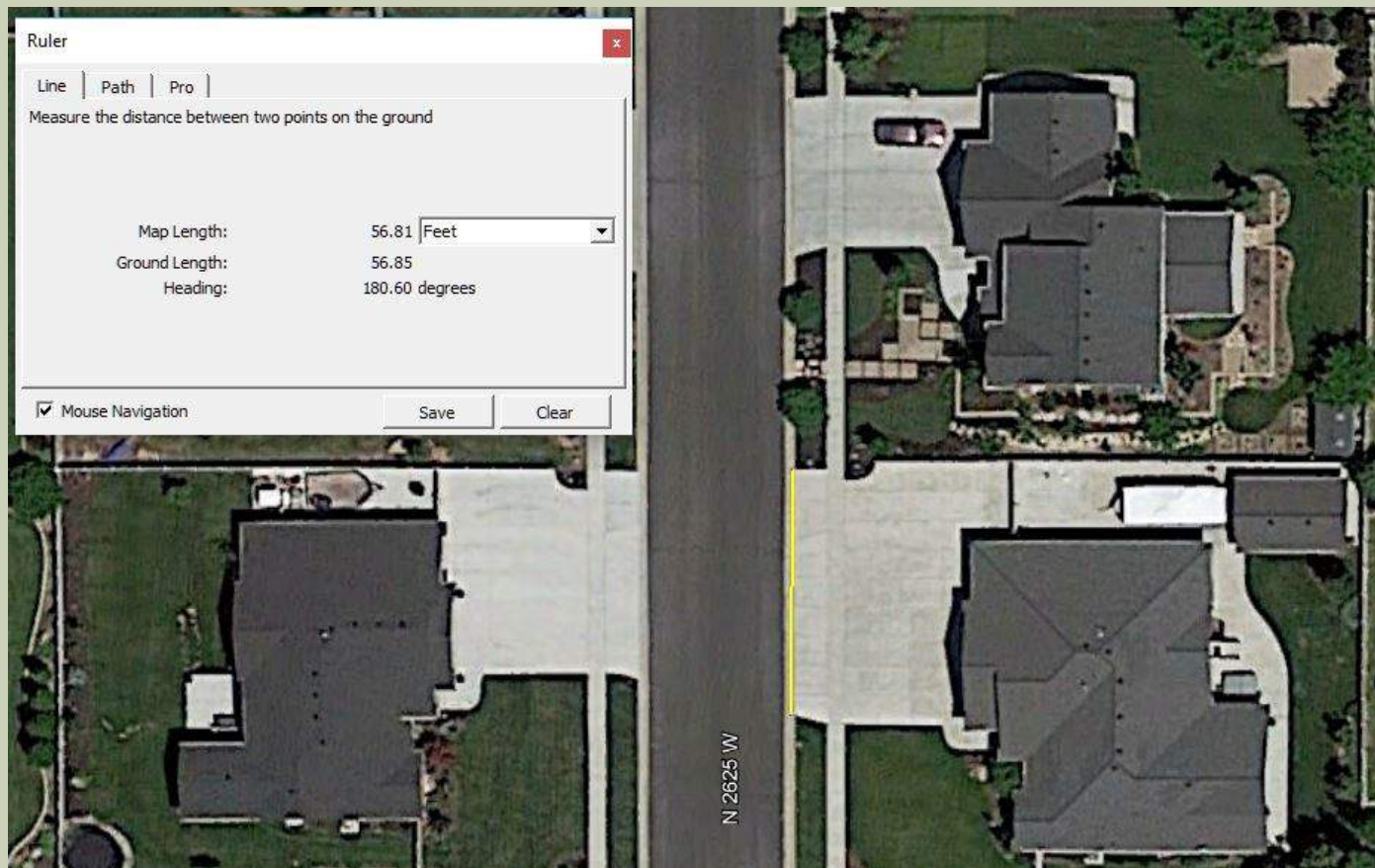
Conservation / Cluster Residential Development

Conventional Residential Development

MCM 5 – LONG-TERM SW MGMT



- Non-structural example - minimize impervious surfaces
 - Minimize driveway widths (curb cuts at street) **by ordinance**
 - Encourage gravel and/or permeable pavers (site-based design)



MCM 5 – LONG-TERM SW MGMT



- City selected 5 LID practices (structural)



Summary of Allowable LID BMPs
from *A Guide to Low Impact Development within Utah*
<https://deg.utah.gov/water-quality/low-impact-development>



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

MCM 5 – LONG-TERM SW MGMT



■ Selected Structural Practices

- Rain Garden
- Vegetated Strips
- Infiltration Basins
 - can be incorporated into detention pond, when designed properly
- Infiltration Trench
- Dry Well



Vegetated
Strip

MCM 5 – LONG-TERM SW MGMT



**Avoid pollution
with pre-treatment**

**Infiltration/
Retention/
Detention
Basins**



MCM 5 – LONG-TERM SW MGMT



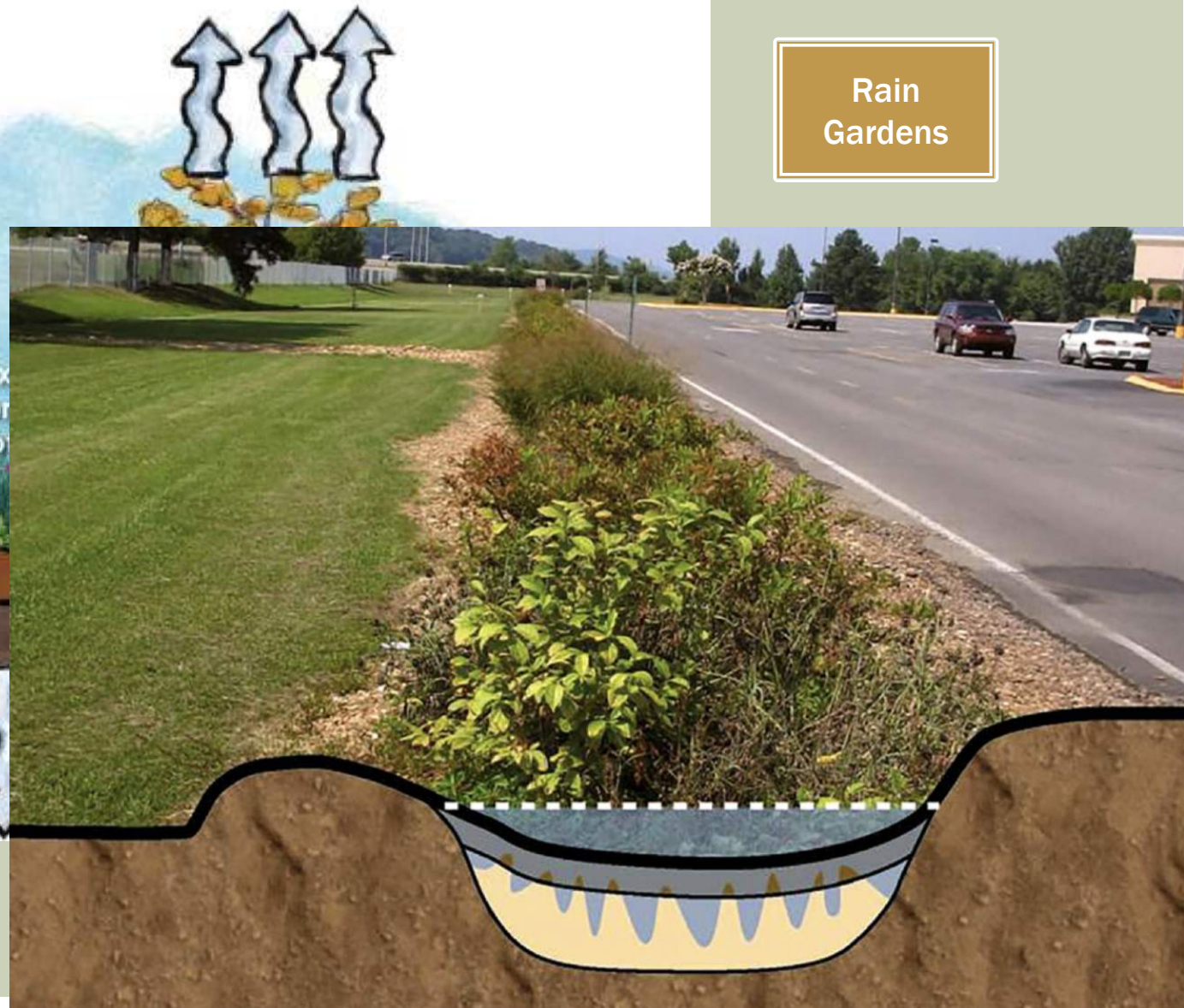
Rain
Gardens

roof water or other
runoff in

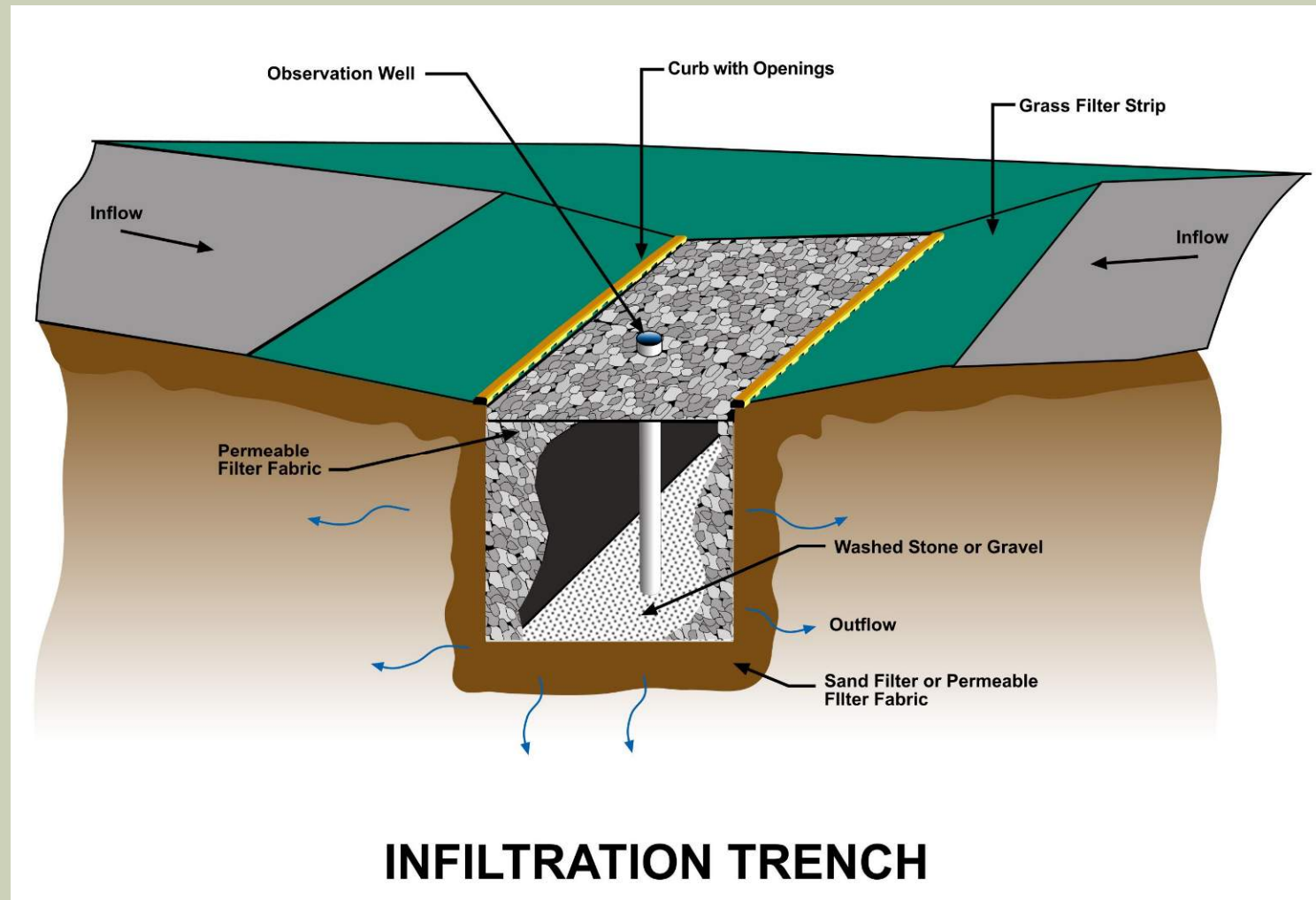
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<https://emswcd.org/in-your-yard/rain-gardens/faq/>

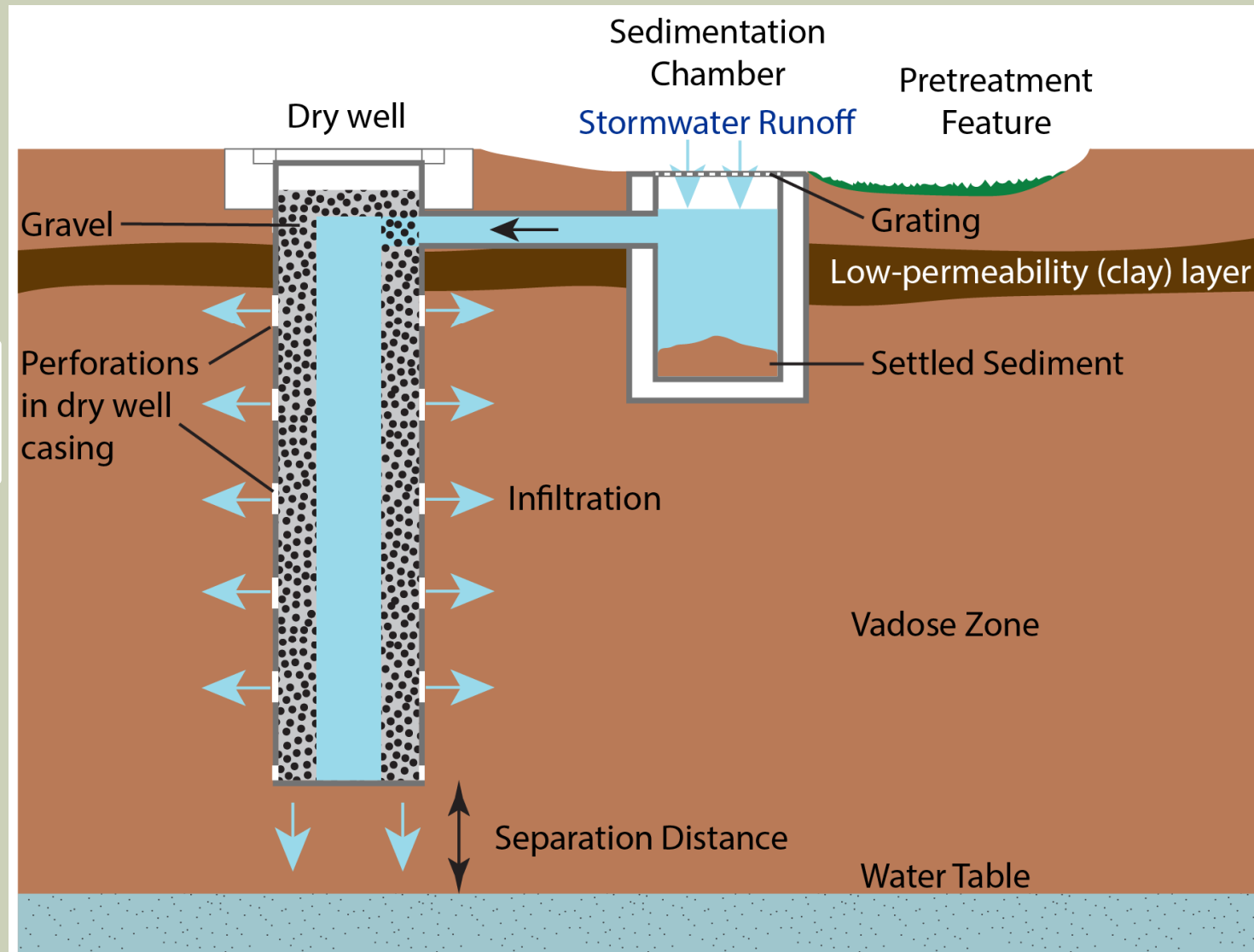
<https://www.aces.edu/blog/topics/landscaping/rain-gardens/>



MCM 5 – LONG-TERM SW MGMT



MCM 5 – LONG-TERM SW MGMT

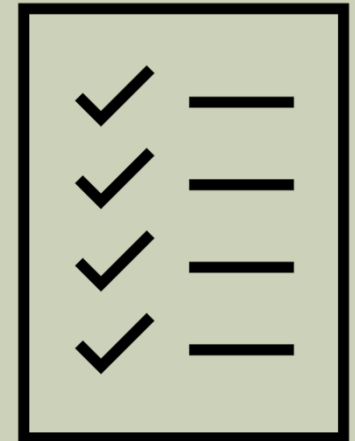


MCM 5 – LONG-TERM SW MGMT



■ Other Tasks

- **Develop and adopt** ordinances that require long-term post-construction 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



MCM 5 – LONG-TERM SW MGMT



■ 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

So much to do,
so little time!

MCM 6 – GOOD HOUSEKEEPING



- Pollution Prevention / Good Housekeeping – General
 - Implement a program for Permittee-owned or operated facilities, 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

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 (e.g. street sweeping)
 - 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