

Willamette Basin Mercury Total Maximum Daily Load

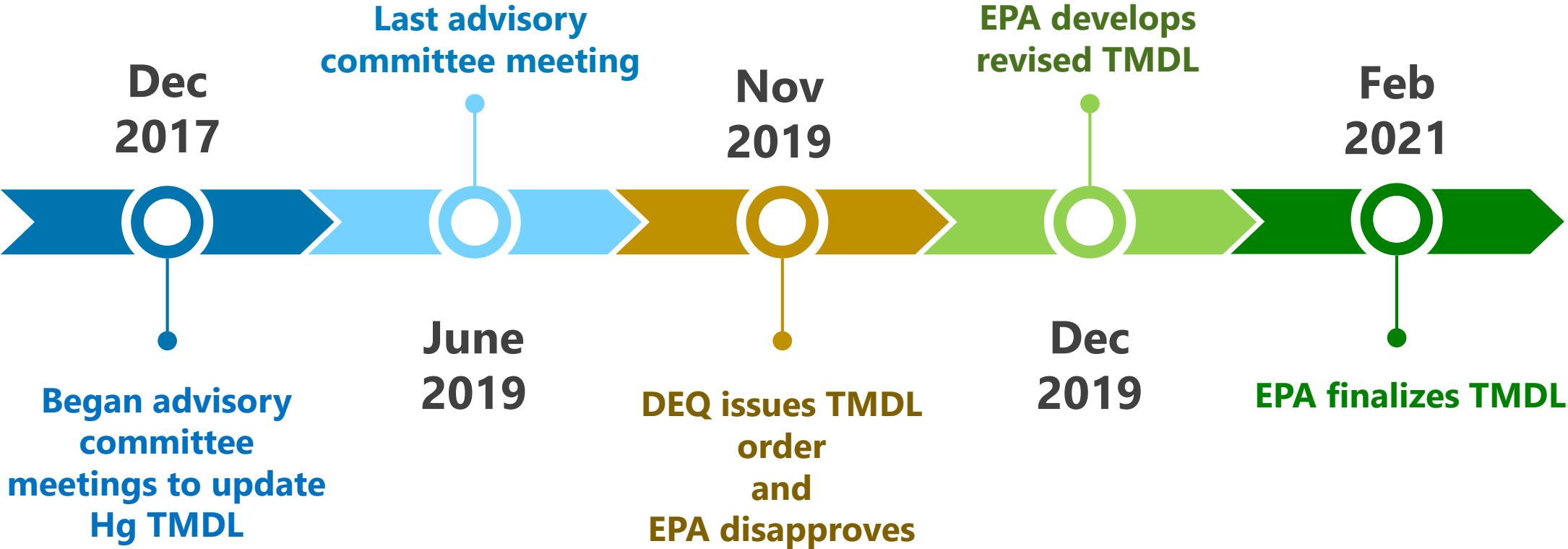
TMDL Planning and NPS Implementation for DMAs with MS4 Permits

Water Quality, TMDL Program

May 25, 2021

POLL

Mercury TMDL Timeline



Most mercury comes from air deposition from sources outside Oregon then moves from land to waterbodies through erosion and runoff

**88 – 96% reduction
of total mercury
needed**

**Primary TMDL
Implementation
Strategy**



**reduce erosion and
runoff to waterbodies**



State Mercury Reduction Efforts

- Last coal-fired power plant in Oregon near Boardman closed in 2020
- In 2019, the state of Oregon joined 20 other states in a lawsuit against EPA's decision to ease restrictions on coal-fired power plants
- State bans, restrictions and management related to:
 - Lighting fixtures
 - Novelty items
 - Thermostats, and
 - Vehicle switches
- The 2007 legislature required dental offices to install dental amalgam separators
- Other voluntary efforts, such as household hazardous waste collection days.

EPA Disapproval of DEQ's TMDL

- EPA's TMDL developed nonpoint source and point source pollutant allocations by subbasin—need to look at EPA's TMDL to find them
- EPA's TMDL states that reasonable assurance for their TMDL relies on DEQ's Water Quality Management Plan (WQMP)

Effective Allocations = EPA's TMDL

Effective Management Measures = DEQ's WQMP

EPA Allocations for MS4 Permittees

SOURCE CATEGORIES: Permitted (WLA) and unpermitted (LA) urban stormwater

Wasteload Allocations (PS) (within permit boundary)	Load Allocations (NPS) (outside permit boundary)
75%* (by subbasin)	75%+ (by subbasin)

* Exception: Lower Willamette and Middle Willamette Subbasins = 97%

+ Exception: Middle Willamette Subbasin = 97%

“aggregated” allocations—i.e. all MS4 permittees (n = 47) together must meet the allocations in each subbasin.

Required NPS
Stormwater Control
Measures in TMDL
Water Quality
Management Plan



Implement Six Stormwater Control Measures

1. Pollution Prevention and Good Housekeeping for Municipal Operations
2. Public Education and Outreach
3. Public Involvement and Participation
4. Illicit Discharge Detection and Elimination
5. Construction Site Runoff Control
6. Post-Construction Site Runoff for New Development and Redevelopment

1

Pollution Prevention and Good Housekeeping for Municipal Operations

- ✓ Maintain city facilities, roadways, etc. using pollution prevention and good housekeeping practices to reduce discharge of pollutants through SW conveyance system
- ✓ DMAs must maintain records for activities and include a descriptive summary of their activities in the TMDL annual report



2 Public Education and Outreach

- ✓ Conduct an ongoing public stormwater education and outreach program—who is the target audience and what is the best way to communicate?
- ✓ DMA must assess progress toward implementation of the program, including a qualitative evaluation of at least one education and outreach activity in the TMDL annual report



3 Public Involvement and Participation

- ✓ Provide opportunities for the public to effectively participate in the development of stormwater control measures using city's public notice requirements
- ✓ Maintain and promote at least one publicly accessible website with information on the city's stormwater control implementation, contact information, and educational materials



4 Illicit Discharge Detection and Elimination

- ✓ Implement and enforce a program to detect and eliminate illicit discharges into the stormwater conveyance system through an ordinance or other regulatory mechanism
- ✓ Stormwater conveyance system map and digital inventory must include the location of outfalls, conveyance system and stormwater control locations
- ✓ Procedure to document all complaints or reports of illicit discharges into and from the stormwater conveyance system



5 Construction Site Runoff Control

- ✓ DEQ 1200C permit: Construction sites one or more acres
- ✓ Require Erosion and Sediment Control Plans for construction project sites that result in a minimum land disturbance of 1/2 acre or more (21,780 SF)
 - Initial clearing through final stabilization
- ✓ Implement and maintain a written escalating enforcement and response procedure



6 Post-Construction Site Runoff for New Development and Redevelopment

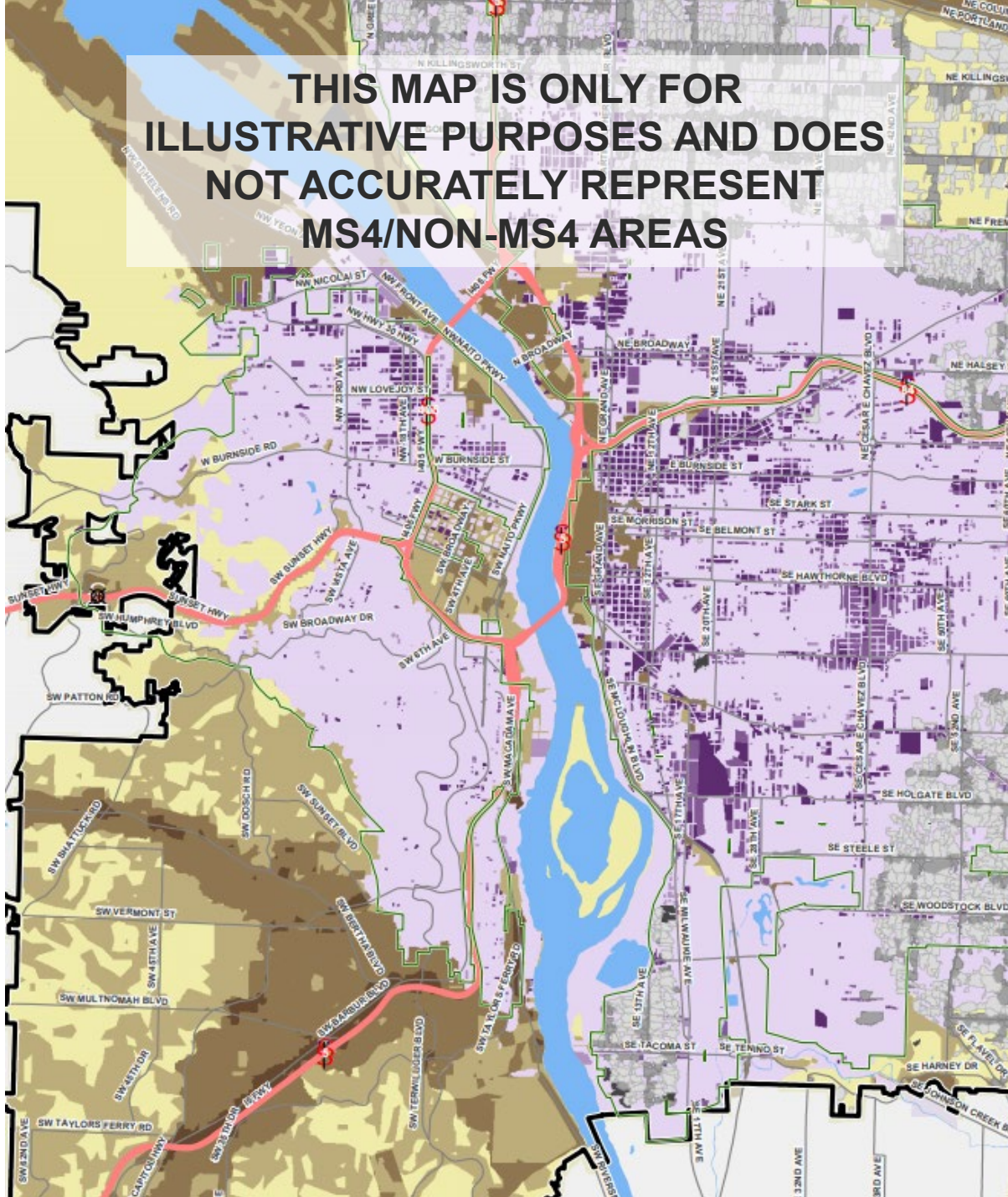
- ✓ Applies to new development or redevelopment projects that create or replace 1/4 acre (10,890 SF)
- ✓ Goal is to retain rainfall on-site and minimize the offsite discharge of precipitation (e.g. low impact development principles)
- ✓ Stormwater that leaves site must be treated. Treatment systems should be designed to remove at least 80% of TSS
- ✓ Long term operation and maintenance requirements



Apply 6 SW control measures per WQMP



- ✓ Describe in TMDL IP
- ✓ Annually report to DEQ basin coordinators on these actions
- ✓ Does not apply to other DMA jurisdictions w/in city limits—e.g. ODOT, ODA, etc.



THIS MAP IS ONLY FOR ILLUSTRATIVE PURPOSES AND DOES NOT ACCURATELY REPRESENT MS4/NON-MS4 AREAS

MS4 Permit Area



- ✓ Meet permit requirements
- ✓ Include in MS4 annual report
- ✓ Annually report to DEQ MS4 staff and cc basin coordinator

City Limits

Can a MS4 apply stormwater requirements under their permit to the non-permitted area to satisfy their NPS stormwater requirements?



Absolutely! (but not necessary)

What if we are already doing that?



Clearly articulate in TMDL plan



Direct Discharges to Waterbodies

- TMDL Implementation Plans must also include BMPs and strategies to reduce erosion and runoff directly into waterbodies
- Ensures cities and counties are implementing a comprehensive approach to reducing sediment and mercury



Break for Questions

TMDL Implementation Plan Updates

- Cities must submit new or updated TMDL implementation plans by Sept. 3, 2022.

NOTE: These plans should be “approvable”, not draft

- Reporting matrix table must include development of measurable objectives associated with each of the 6 stormwater management measures.
- Reporting matrix should include dates to meet the implementation deadline associated with stormwater management measures—expected by the end of 2023 (end of 5-yr. cycle)

Estimating Costs

Implementation plans must include cost estimates to implement actions contained in plan:



- Staff salaries, supplies, volunteer coordination, regulatory fees
- Installation, operation, and maintenance of management measures
- Monitoring, data analysis and management
- Education and outreach efforts
- Ordinance development

Generally, use a 5-yr timeframe to coincide with implementation plan duration

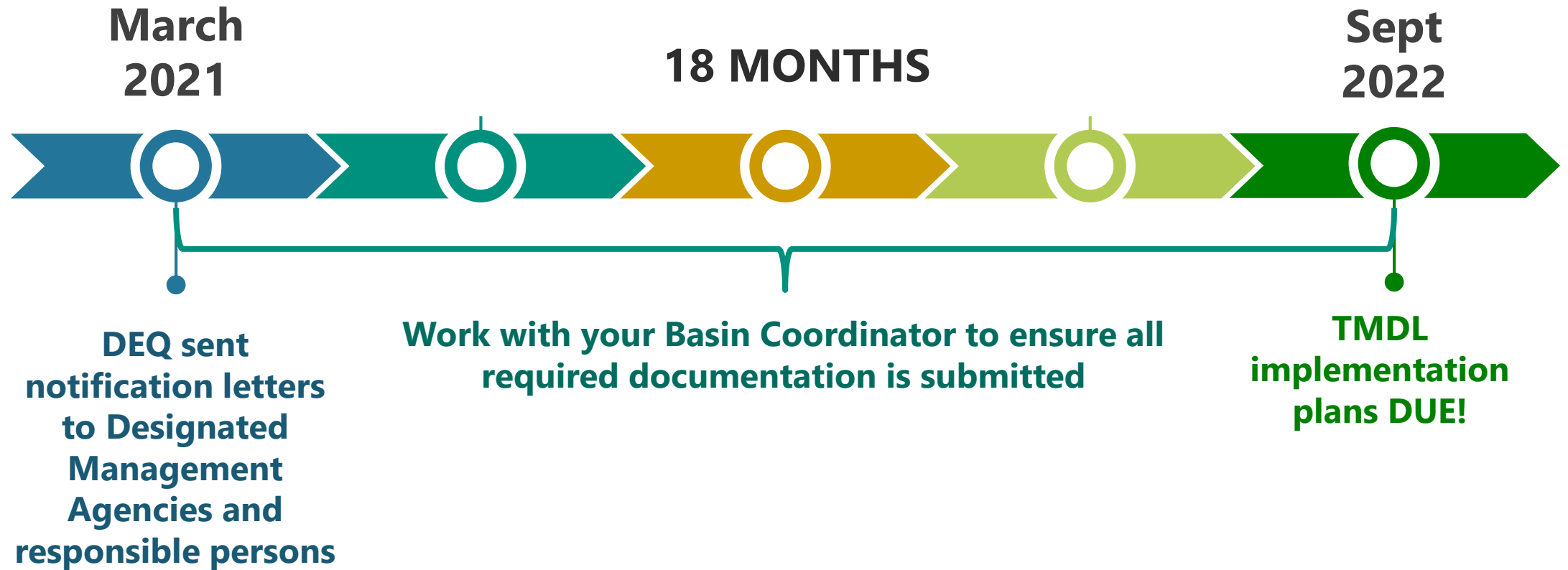
Measurable Objectives

- Strategies must include a method to track progress and document challenges
 - Measure whether or not you're gaining ground on successfully and fully implementing a strategy
- Strategies must include interim timelines to measure progress against
 - Track whether or not you're meeting your targets and use adaptive management

Keep in Mind

- TMDL implementation plans must address a DMA's entire jurisdiction, both inside and outside permit area.
- MS4 permit related strategies must be referenced in the TMDL implementation plan, but details can be found in the permit or SW management plan.
- Strategies and actions for TMDL pollutants without WLAs are described in the TMDL implementation plan and are implemented throughout the DMA's jurisdiction (e.g. temperature).

The Willamette Basin Mercury TMDL



Annual Reports

- DMAs must submit annual reports to report on actions contained in TMDL implementation plans for mercury and any other TMDL pollutant.
- If you do not know when your reporting date is, please contact your basin coordinator
- DMAs must post annual reports and TMDL implementation plans to city websites (unless city does not have a website)

Year Five Review

- Every fifth year, DMAs must review implementation efforts over the previous four years. DEQ assesses whether progress is sufficient.
- The next 5-yr review for the Willamette Basin is in **2023** for most DMAs.

Exceptions: Molalla-Pudding and some Upper Willamette DMAs will report prior to or after 2023.

- DEQ will likely use a Survey Monkey to gather implementation efforts from each DMA.

Enforcement

OAR 340-012-0055(2)(e)

Failing to timely submit or implement a Total Maximum Daily Load (TMDL) Implementation Plan, by a Designated Management Agency (DMA), as required by department order.

DEQ may send **warning letters** to DMAs that do not submit implementation plans or annual reports on time or documents are unsatisfactory. Warning letters may lead to **penalties** if not fixed.

NOTICE

**THANK YOU FOR
NOTICING THIS NEW
NOTICE**

**YOUR NOTICING IT HAS
BEEN NOTED**

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Learn More at Upcoming Workshops!

June 1 TMDL Planning and Implementation for Counties

June 8 TMDL Planning and Implementation for Responsible Persons, Water Conveyance Entities

QUESTIONS?

