

# An introduction to the Pollutant Loading Assessment (PLA)



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# What is the PLA?

A joint Ecology & EPA project to develop a watershed-based computerized “model” to help people understand what is polluting the Green-Duwamish River and where it comes from.

# Why develop a PLA?

## Towards Protecting Human Health & the Environment Green-Duwamish River Watershed

### Pollutant Loading Assessment Modeling Tool

1. Identify pollution sources throughout the watershed
2. Develop source reduction targets and strategies (including for diffuse unregulated sources)



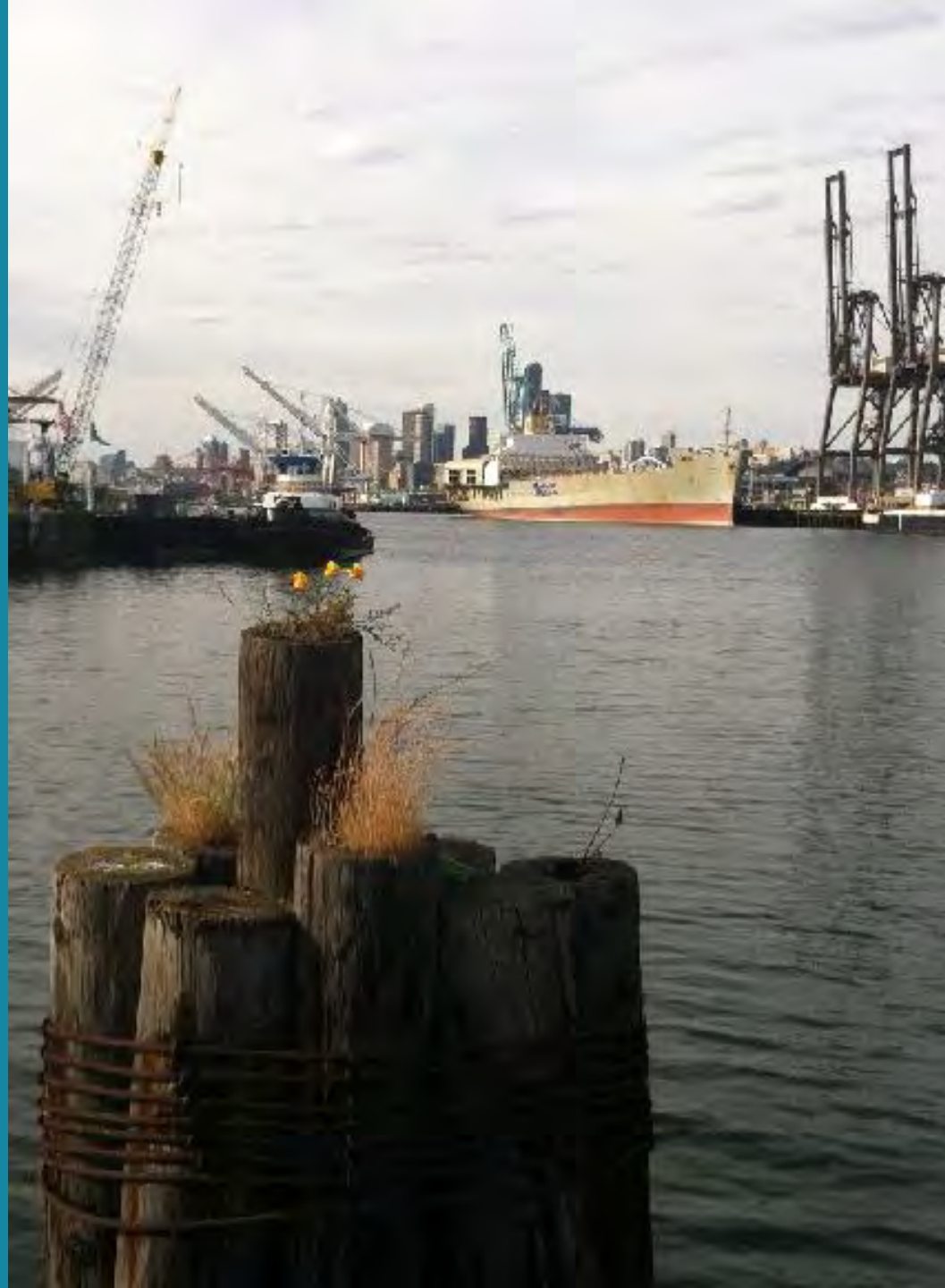
#### Lower Duwamish Waterway Cleanup

1. Control sources to begin in-water cleanup (includes discharges and contaminated sites)
2. Conduct in-waterway cleanup (includes early action sediment cleanup and long-term cleanup plan)

Green-Duwamish River

# Regulatory Context

- Water Quality Impairments
- Superfund Cleanup
- Endangered Species



# Why Develop a Model?

To tie together existing work...

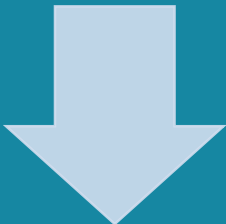
To help us understand key processes and their relative importance...

Which will allow us to take informed actions...

# Why Develop a Model?

To tie together existing work:

- Waterway sediment transport and Green River hydrologic modeling
- Transport pathway studies (air deposition, stormwater)
- Data (surface water, sediment, suspended solids, stormwater, combined sewer, groundwater, air, fish tissue)



# Why Develop a Model?



To help us understand:

- The relative pollution contributions of different tributary areas
- The estimated magnitude of different pollution sources & pathways
- How different pollutants move through the environment



# Why Develop a Model?



Which will allow us to:

- Identify projects to improve water, sediment, tissue quality
- Prioritize management actions
- Scope future monitoring & data collection
- Improve outfall-specific modeling

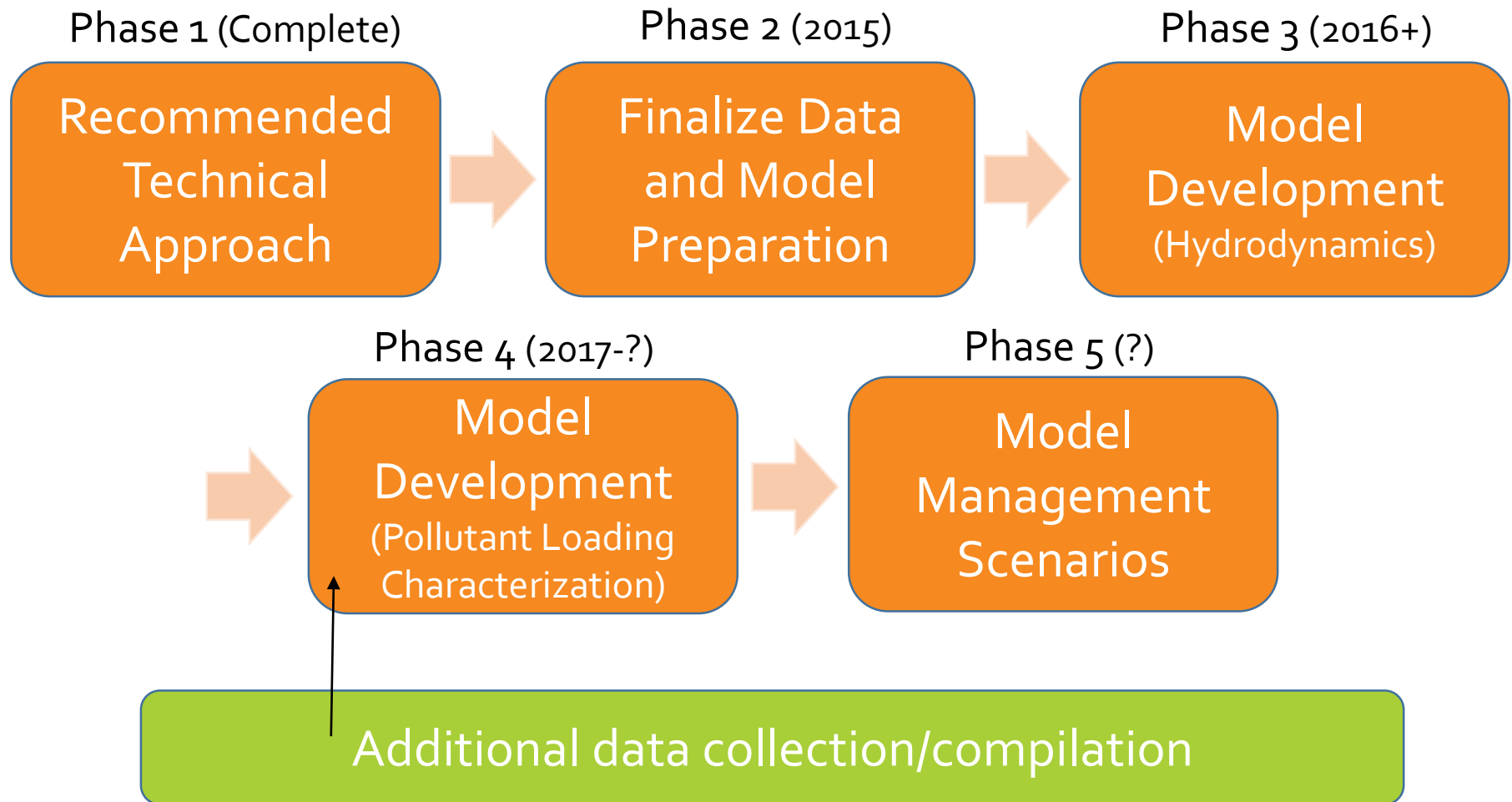


# Project Goals

1. Address water, sediment, and tissue quality impairments under the Clean Water Act in the Green-Duwamish watershed, including the Lower Duwamish Waterway (LDW).
2. Prioritize pollutant reduction efforts in the watershed to minimize recontamination of remediated LDW sediments.

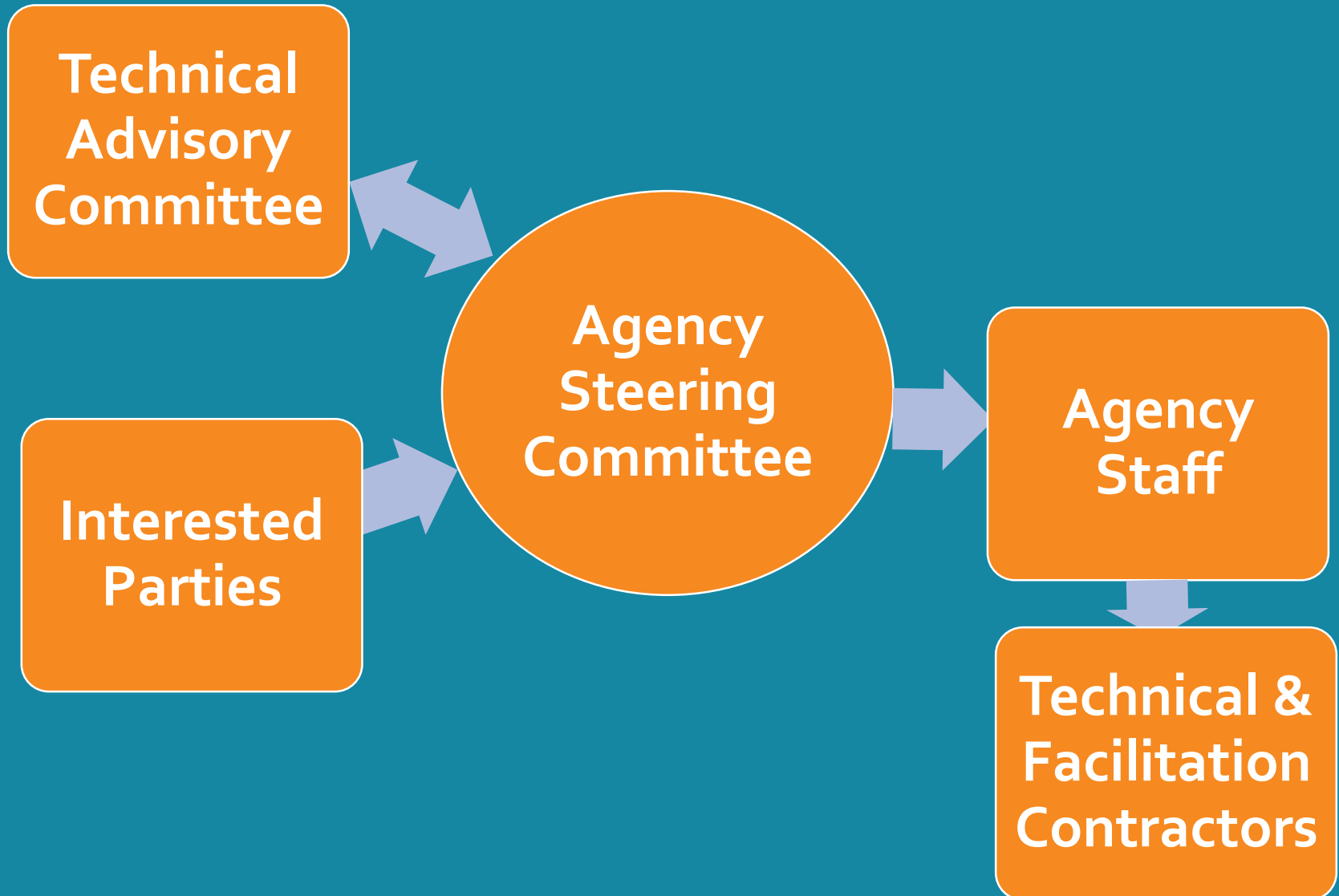


# PLA Development Timeline



Ongoing Interested Parties Outreach & Participation

# How will the PLA be developed?



# Role of the Technical Advisory Committee (TAC)

- Acts as a technical resource to the Ecology and EPA project team
- Provides input to help guide model development
  - Review and discuss technical memos:
    - Model selection and boundaries
    - Data gaps evaluation
- Made up of representatives from government, quasi-government and nonprofit organizations

# Progress of TAC Discussions:

## Model Development

- Refine project goals and objectives
- Select models and boundaries
- Identify candidate parameters or pollutants to model
- Next Topic: Review existing data gaps

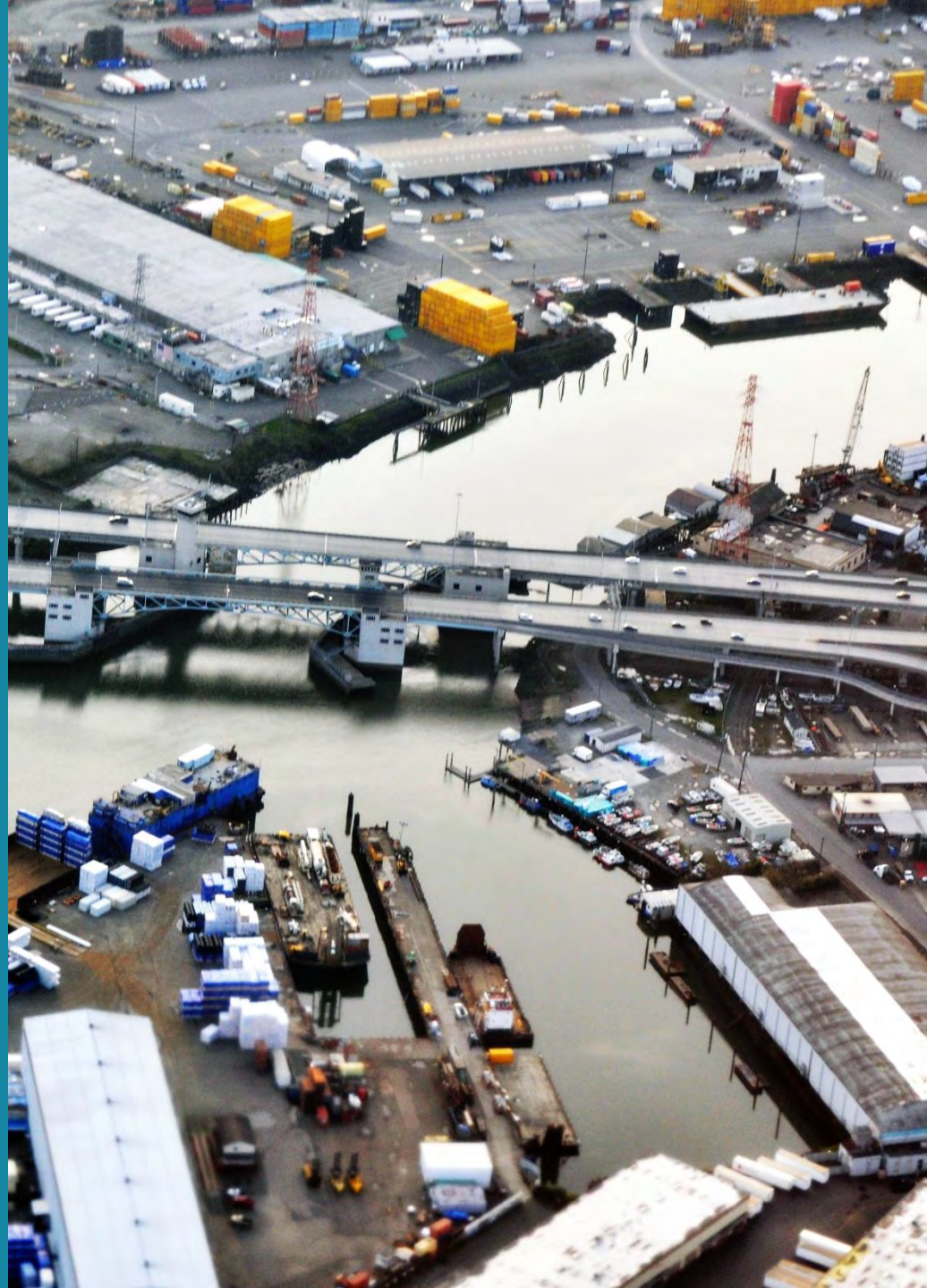
# Next Major Milestone:

## Develop a modeling Quality Assurance Project Plan (QAPP)

- Draft, review & finalize a QAPP
  - Hydrodynamics & physical transport
- Identify/develop a project database
  - Consolidate different data sources
- Refine conceptual model of sources and pathways
  - Evaluate existing pollutant-specific information
- Identify potential management actions for future scenario modeling
  - Informs level-of-detail and surrogate decisions

# Role of Interested Parties: You!

- Open forum for all stakeholders to provide input on development of the PLA
- Hear about work of the TAC and progress on the PLA overall
- Review key technical questions and topics...



# Topic 1: PLA Use and Development

What are the benefits you envision that the PLA will bring to your jurisdiction, business or organization?

What concerns do you have regarding development and use of the PLA?





# Topic 2: Parameters Selection and Data Collection

Ecology, EPA and the TAC agree this effort should focus on toxics.

- PCBs
- cPAHs
- Dioxin/Furans
- Arsenic
- Phthalates
- Copper
- Zinc
- Mercury

What do you think about the candidate parameters list?

What do you think about future collection of data for these parameters?



# Topic 3: Future Management Actions

What management practice or source reduction strategy would you like to see developed along with the PLA?



# An introduction to the Green-Duwamish Watershed PLA



Questions?

# Small group discussions

**1. PLA use and development:** List the benefits you envision the PLA will bring to your jurisdiction, business or organization, as well as any concerns you have regarding development and use of the PLA.

**2. Parameters selection and data collection:** Discuss your comments or concerns regarding the proposed candidate parameters list and future data collection.

**3. Future water quality management:** Any specific water quality management practice or source reduction strategy you would like to see developed along with the PLA?