

DISTRICT  
DEPARTMENT  
OF THE  
ENVIRONMENT



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## CONSOLIDATED TMDL IMPLEMENTATION PLAN

### MEETING MINUTES

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Meeting Date: December 5, 2013

Meeting Location: DDOE

Approval: **Final**

## 1 ATTENDANCE

Name	Organization	Present
Jonathan Champion	DDOE	Y
Brian VanWye	DDOE	Y
Jeffrey Seltzer	DDOE	Y
Martin Hurd	DDOE	Y
Dan Herrema	LimnoTech	Y
Tim Schmitt	LimnoTech	Y
Anouk Savineau	LimnoTech	Y
Tim Fields	MDB, Inc.	Y
Ryan Campbell	MDB, Inc.	Y
Veronica Davis	Nspiregreen, LLC	Y
Kenya Goodson	Nspiregreen, LLC	Y
Chancee` Lundy	Nspiregreen, LLC	Y
Rebecca Hammer	NRDC	Y
Jenny Molloy	EPA	Y
Kaitlyn Bendik	EPA Region 3 (via Teleconference)	Y
Kate Rice (for Dan Duke)	DCBIA	Y
Ross Mandel	ICPRB	Y
Mohsin Siddique	DC Water	Y
Meredith Upchurch	DDOT	Y
Hye Yeong Kwon	Center for Watershed Protection	N
Robin Broder	Potomac Riverkeeper	N
Mike Bolinder	Anacostia Riverkeeper	N

Meeting attendance is noted above.

## 2 MEETING PURPOSE

To update stakeholders on current project status and to discuss highlights of methodology for developing the Consolidated Total Maximum Daily Load Implementation Plan

## 3 MEETING LOCATION

Building: District Department of Environment

Conference Room: 512

Conference Line: NA

Web Address: NA

## 4 MEETING START

Meeting Actual Start: 10:30 AM

## 5 AGENDA

- **Welcome**

Jeffrey Seltzer, Associate Director of the Stormwater Management Division at DDOE, opened the stakeholder's meeting. He thanked everyone for their participation in this process. Mr. Seltzer emphasized that the methodology for developing the Consolidated TMDL Implementation Plan is critical for the Municipal Storm Sewer System (MS4) permit. It is DDOE's role to ensure that this project adequately and successfully fulfills the requirements of the MS4 Permit. All of the stakeholders in the process have the opportunity to help to improve water quality through input into this plan. Stakeholders, in addition to their staff at their representative organizations, are encouraged to review all the components of the methodology when it is provided, and make comments and raise questions as needed.

- **Introductions**

Everyone stated their name, title, the organization they represent, their role in the project and their expectations and their role (or expected contribution in the case of stakeholders) in the Consolidated TMDL Implementation Plan development.

- **Overview of the Agenda**

Jonathan Champion from DDOE provided an overview of the agenda. The objectives for the meeting were to provide an update on the project, schedule, deliverables, and progress since the first stakeholder meeting in August 2013. The main focus of the meeting was the draft methodology for developing the Consolidated TMDL Implementation Plan.

- **Project Update**

Dan Herrema from the consultant team began the presentation with a project update. Although work on the implementation plan was impacted during the Federal government shutdown in October, Mr. Herrema indicated that DDOE is still on schedule to deliver the Implementation Plan to EPA by the May 2015 deadline. The draft methodology document was submitted to DDOE for review before the Thanksgiving holiday. The stakeholders were provided a copy of the table of contents of the draft methodology document (See Attachment B). DDOE will incorporate feedback provided by stakeholders at this meeting and its comments into the draft methodology. The consultant team will then update the draft Methodology document based on these comments. Mr. Herrema stated that stakeholders will receive a copy of the updated draft methodology in January 2014.

- **Highlights of Methodology Plan**

In the presentation, the team provided a highlight of some of the challenges related to modeling, data collection, and information available for existing TMDLs that may affect the methodology for developing the Consolidated TMDL Implementation Plan (See attachment D). The consultant team will address concerns about data such as data gaps. The Team will also review all TMDLs for the District, which were developed over a

long time period from 1988 to 2012. The team is emphasizing a technically defensible approach with the Methodology by evaluating the data that was used to develop 303(d) impairment listing and TMDLs and ensuring the data is robust. As the data is being collected it is placed in a database that will be used to support development of the Consolidated TMDL Implementation Plan.

The current draft methodology is approximately 90 pages and contains information on how the District will address over 380 TMDL Waste Load Allocations (WLAs).

- **Methodology**

Tim Schmitt, from the consultant team, walked the stakeholders through the table of contents of the methodology document. Mr. Schmitt stated the first section of the methodology document deals with permit requirements for DDOE to comply with MS4 permit to ensure that MS4 discharges are controlled and that these discharges are not causing or contributing to a violation of water quality standards. The model will develop stormwater best management practices (BMP) implementation scenarios and project progress towards meeting WLAs based on implementation of BMPs. Event mean concentrations (EMCs) and other data from the TMDLs will be used to check the model.

There was a question from Mohsin Siddique from DC Water about the current monitoring data. Mr. Schmitt explained that existing monitoring data will be used to look at impairments and current WLAs and make sure the impairments are valid. Dr. Siddique asked where the concentrations for the modeling would come from, whether we will wait on more monitoring data and would current monitoring data be used to estimate loads? A new baseline load will be calculated using best available EMC data including evaluating using EMCs by land use. There will be no collection of new monitoring data used for the model. There was a concern from DC Water on how to ensure the data is robust enough to support the Implementation Plan.

Jenny Molloy from EPA recommended evaluating the potential revision of current TMDLs that may not have reliable data and consider delisting where appropriate. Mr. Herrema stated that all current TMDLs will be included in the Consolidated TMDL Implementation Plan. If individual TMDLs are revised or recommended for de-listing, that will be done outside of this Plan. The team will evaluate data used to determine if data from individual water bodies were used in the TMDLs (e.g., were data from mainstem fish tissue samples used to list tributaries as impaired). Each TMDL will be evaluated on an individual basis and prioritized based on the quality of data used to develop them.

Work from this project will also align with the work being done to meet Chesapeake Bay Program goals and obligations. The goal is to assess the work being done for the Chesapeake Bay and to not reinvent the wheel. Ms. Molloy offered assistance to connect DDOE to EPA staff in the Chesapeake Bay Program office.

The draft Methodology plan is a plan that will be continually updated.

- **Modeling Task**

Anouk Savineau from the consultant team gave an overview of the modeling

component of the Implementation Plan. The project has two implementation actions, the modeling and monitoring components. The modeling tool will calculate pollutant loads in the DC MS4 area and the load reductions achieved using structural and non-structural BMPs. For the modeling there will be three snapshots in time: the baseline, current conditions and future scenarios. Baseline conditions represent the time frame during which the TMDLs were developed and assume no BMP implementation. Inputs from current research into area, land use, precipitation and EMCs will be incorporated into the model to calculate baseline loads. The model baseline loads will be checked against the reference baseline loads developed for the original TMDLs.

Becky Hammer from NRDC asked why the baseline is being recalculated. Anouk explained that one new model is being used to model the entire DC MS4 area. New baselines must be generated with the new model so that implementation scenarios can be based on the same baseline data. In addition, current conditions have changed over time since the original TMDL studies were done, and this must be reflected in the modeling. The model will be compared to previous baseline analyses.

The current conditions scenario represent today's conditions and will include the load reductions provided by the existing BMPs. A geodatabase is being developed for the existing BMPs that will include BMP attribute data. Additionally, BMP efficiencies will be evaluated based on both load reduction and runoff retention. Jenny Molloy noted that the Chesapeake Bay has developed efficiencies based on runoff retention. Anouk Savineau noted that these efficiencies have been collected and are part of the overall review of BMP efficiencies.

Future scenarios for the model will include various scenarios for BMP implementation. Nspiregreen will be developing projections on development and redevelopment in the MS4 area (2040). In 2040, what is the landscape going to look like in the MS4 area and how much BMP implementation is necessary to achieve WLA? A large driver of the implementation will stem from the new DC stormwater retention standards for new development and redevelopment.

The model that is being developed for the Implementation Plan will also be used to help determine the schedule or timeline for meeting the WLAs, as well as track progress over time. The team is also reviewing DDOE's Revised Monitoring Framework. Monitoring programs will be evaluated to determine their usefulness for tracking progress towards meeting WLAs in the MS4 area. Two goals are to create a feedback loop that captures improvements, and to align this work with other work being done in other DDOE programs.

- **Benchmarks/Milestones**

Mr. Schmitt discussed benchmarks and milestones which are required by the permit and used to evaluate progress. Benchmarks are determined annually at a local level. They are non-enforceable, but are used to evaluate progress toward WLAs at a local level. Milestones are enforceable and are required for WLAs that will take more than five years to implement. Benchmarks are used to stay on track with the milestone. The team will be developing benchmarks and milestones for the TMDL Project, implementing scenarios for each WLA using the model, prioritizing projects, and developing a

schedule.

DDOE discussed the difficulty of setting benchmarks at a smaller scale (i.e. watershed versus section of a water body) and scale of timing (one year versus five year increments). One of the difficulties is predicting the amount of development and/or re-development in a small area, and thus the projected amount of stormwater control in that small area. This uncertainty must be considered when developing benchmarks and milestones. Based on this uncertainty, DDOE plans to establish milestones at the large water body level, where they should be more accurate to predict and plan. Mr. Schmitt discussed tracking progress by updating the model to show incremental BMP implementation, and also tracking progress through programmatic implementation such as public education sessions. The team will also look at water quality monitoring and revise the IP if necessary. Sources and source control will also be evaluated in the Implementation Plan.

- **Outreach**

Chancee' Lundy from Nspiregreen discussed the public outreach component of this project. She emphasized that this will be an open and transparent project. The team will provide stakeholders with documentation and feedback on progress. There will be a public meeting planned for the future that is separate from stakeholder meetings. A website for the project will be a component of outreach and will be open to stakeholders and the public.

- **Integration of the Consolidated TMDL IP with Other Watershed Plans, and Funding of the Consolidated TMDL IP**

Mr. Schmitt concluded the meeting by summarizing the status of the Consolidated TMDL Implementation Plan. He stated that other stormwater projects for the watersheds will complement and inform the Implementation Plan. Funding, both public (such as revenue from the District's stormwater fee) and private (such as through development and redevelopment under the new DC stormwater regulations), was discussed.

- **Conclusion**

Mr. Herrema discussed the deadlines for deliverables for the next meeting. The draft baseline and the crosswalk for the monitoring framework are due by the end of March, which is tentatively when the next stakeholder's meeting will be held.

- **Questions**

There were mostly comments about the presentation. Ms. Molloy requested the team talk to Region 3 about TMDLs to be revised or delisted, and that the Implementation Plan should be coordinated with other TMDL efforts. She commented that the Implementation Plan should be realistic, but aggressive. Milestones should be revisited every five years.

Mohsin Siddique wants the team to assess the TMDLs correctly with good data. Meredith Upchurch from DDOT voiced that when modeling future scenarios, there are many unknowns and it will be difficult to make certain estimates, such as road construction projects

## 6 POST MEETING ACTION ITEMS

Action	Assigned To	Deadline
Send the meeting minutes, presentation, and list of attendees out to participants	Kenya L. Goodson	December 9, 2013

## 7 DECISIONS MADE

- Stakeholders will receive the draft Methodology to review after DDOE input. Stakeholder comments on the draft Methodology will be due during January 2014. Next Stakeholders' meeting may take place in March 2014, unless there is a need to meet sooner based on stakeholder feedback.

## 8 NEXT MEETING

Next Meeting: March 2014

## 9 MEETING END

Meeting End: 12:00 PM

## 10 ATTACHMENTS

- A – Agenda
- B – Table of Contents for Methodology Document
- C – Highlights from Methodology Document
- D - Presentation

**District Department of Environment  
Consolidated TMDL Implementation Plan  
Stakeholder Meeting Agenda  
December 5, 2013, 10:00am-12:00pm**

**Meeting Objective:** To provide stakeholders with an overview of the Methodology for the Consolidated TMDL Implementation Plan and Revised Monitoring Framework

- I. Introductions
- II. Project Update
  - a. Schedule, deliverables
  - b. Ongoing work since last Stakeholder meeting
  - c. Highlights of work, moving ahead
- III. Overview of Draft Methodology
- IV. Methodology Highlights
- V. Questions & Answers
- VI. Path Forward
- VII. Wrap up & Adjournment



## **DDOE Consolidated TMDL Methodology Document**

1. Introduction
2. Background on Permit Requirements and Regulatory Compliance Strategy
3. Review of TMDL Inventory, TMDL Data, and 303(d) Listing Process
4. Implementation Actions to Comply with Requirements to Address MS4 WLAs
5. Setting Benchmarks and Milestones and Tracking Progress
6. Methodology for Stakeholder Involvement and Public Outreach
7. Integration with Other Watershed Planning Efforts
8. Methodology for Funding the IP

## DDOE Consolidated TMDL Methodology Document

### Major Topics/Issues by Section

1. Introduction
2. Background on Permit Requirements and Regulatory Compliance Strategy
  - Summary of permit requirements
    - i. Relationship between Maximum Extent Practicable (MEP) and WLAs
    - ii. Models will be used to describe progress
  - Potential regulatory strategies to achieve individual WLAs include:
    - i. Refine the use of the water body
    - ii. De-list the water body
    - iii. Implement source control (not based on achieving numeric WLA)
    - iv. Implement BMPs and use modeling to track progress towards numeric WLA
3. Review of TMDL Inventory, TMDL Data, and 303(d) Listing Process
  - Large inventory of existing TMDLs and MS4 WLAs
  - Some TMDLs and MS4 WLAs based on minimal data
4. Implementation Actions to Comply with Requirements to Address MS4 WLAs
  - Baseline calculations/model confirmation
  - BMP types (structural, nonstructural) and efficiencies
  - Re-development projections
  - Schedule development
  - Revised monitoring plan
5. Setting Benchmarks and Milestones and Tracking Progress
  - Defining and setting benchmarks and milestones
  - Defining/tracking progress
  - Implementing adaptive management
6. Methodology for Stakeholder Involvement and Public Outreach
  - Process for stakeholder feedback
7. Integration with Other Watershed Planning Efforts
  - Consolidated TMDL IP is an enforceable regulatory requirement and must be primary plan for organizing control of MS4s
  - Other plans will be used to inform IP
  - Habitat restoration, biological recovery, etc. aspects of other plans will remain priorities
8. Methodology for Funding the IP
  - Major focus on private sector/re-development
  - “Fee-in-lieu” projects/projections

# District Consolidated TMDL Implementation Plan and Monitoring Program

**Stakeholder Meeting  
December 5, 2013**

# Introduction and Meeting Goals

- 1. Review stakeholder interests in this project**
- 2. Provide overview of the Methodology for the Consolidated TMDL Implementation Plan**
- 3. Discuss initial feedback and input**
- 4. Discuss next steps**

# Agenda

- **Project Update**
  - Schedule, deliverables
  - Ongoing work since last Stakeholder meeting
  - Highlights of work, moving ahead
- **Overview of Methodology**
- **Methodology Highlights**
- **Questions & Answers**
- **Path Forward**
- **Wrap up & Adjournment**

# Project Update

- **Federal Shut Down**
- **Work In Progress**
  - Draft Methodology document
  - Literature review
  - Quality Assurance Project Plan
  - Data collection
  - Model design
- **Delivered Methodology (draft) - 11/15/13**

# Project Update

- **Today: provide content and highlights of the document**
  - Any initial input or reactions today are welcome
- **Draft Methodology next steps**
  - Incorporate comments from DDOE (also any initial feedback from stakeholders)
  - Distribute to stakeholders prior to the holidays
  - Receive any input/comments in January

# Methodology: Table of Contents

- I. Introduction**
- II. Background on Permit Requirements and Regulatory Compliance Strategy**
- III. Review of TMDL Inventory, TMDL Data, and 303(d) Listing Process**
- IV. Implementation Actions to Address MS4 WLAs**
- V. Setting Benchmarks and Milestones and Tracking Progress**
- VI. Stakeholder Involvement and Public Outreach**
- VII. Integration with Other Watershed Planning Efforts**
- VIII. Funding the IP**



# Development of Methodology: Highlights

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Multiple decision points

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Decisions needed over the next several months to develop model/baseline

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Stakeholder feedback is welcome

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# Background on Permit Requirements and Compliance Strategy

- **Permit requirements: Develop a schedule to meet the MS4 portion of the District's WLAs**
  - Models will be used to project progress and track during implementation
  - Monitoring will be used to verify and ground truth
- **Potential strategies**
  - Implement source control
  - Implement BMPs and use modeling to track progress towards numeric WLA
  - Tracking: scaling benchmarks and milestones
  - Consider other regulatory options

# Review of TMDL Inventory, Data, and Listing Methods

- TMDLs supported by varying levels of data



# Implementation Actions to Comply with Requirements to Address MS4 WLAs

- **Develop and apply modeling tool**
  - Baseline, current, & future scenarios
  - BMPs
  - Re-development projections
  - Helps develop schedule and track progress
- **Revised monitoring plan**
  - Validate model
  - Measure water quality improvements

# Benchmarks, Milestones and Tracking Progress

- **Defining and setting benchmarks and milestones**
- **Defining/tracking progress**
- **Implementing adaptive management**

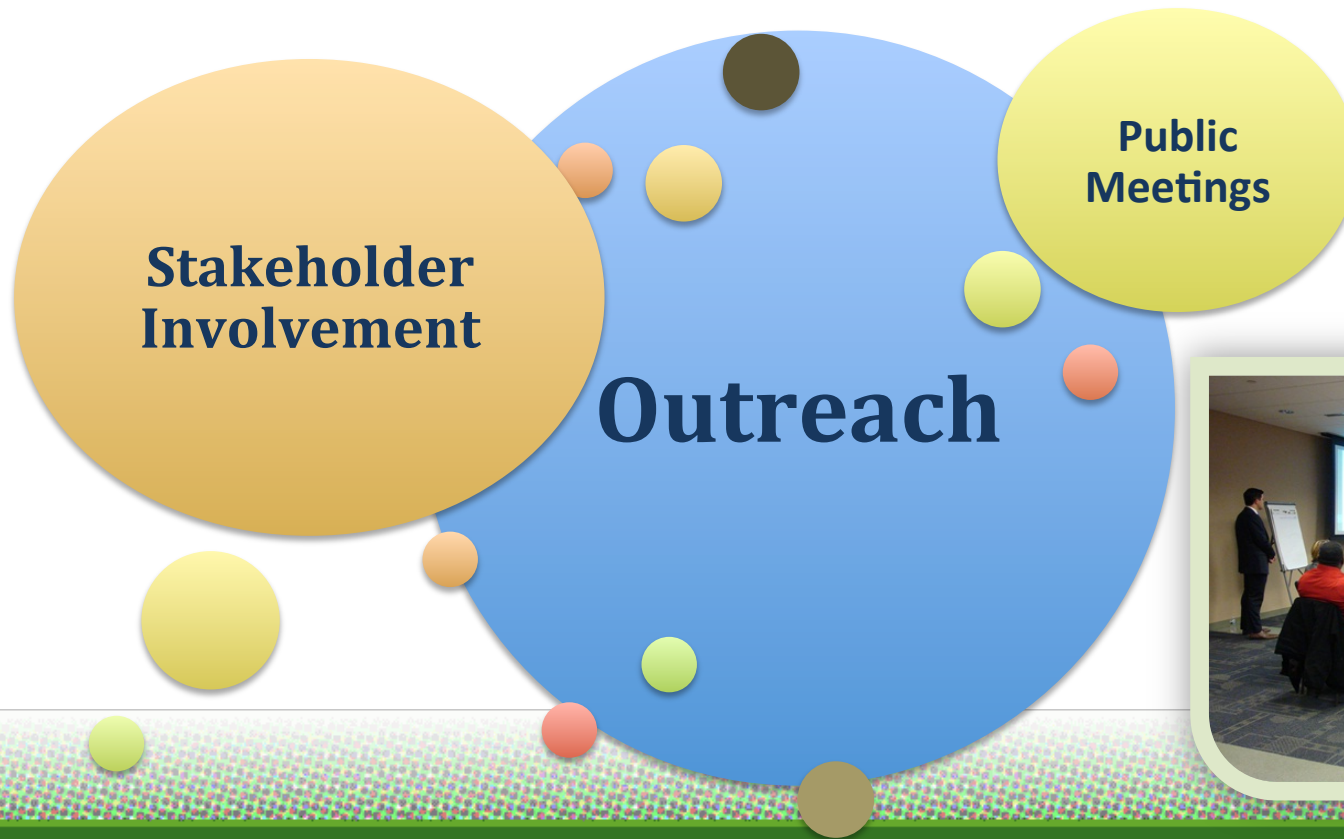
Washington, DC, Streetscape – 2008



Washington, DC, Streetscape – 2028

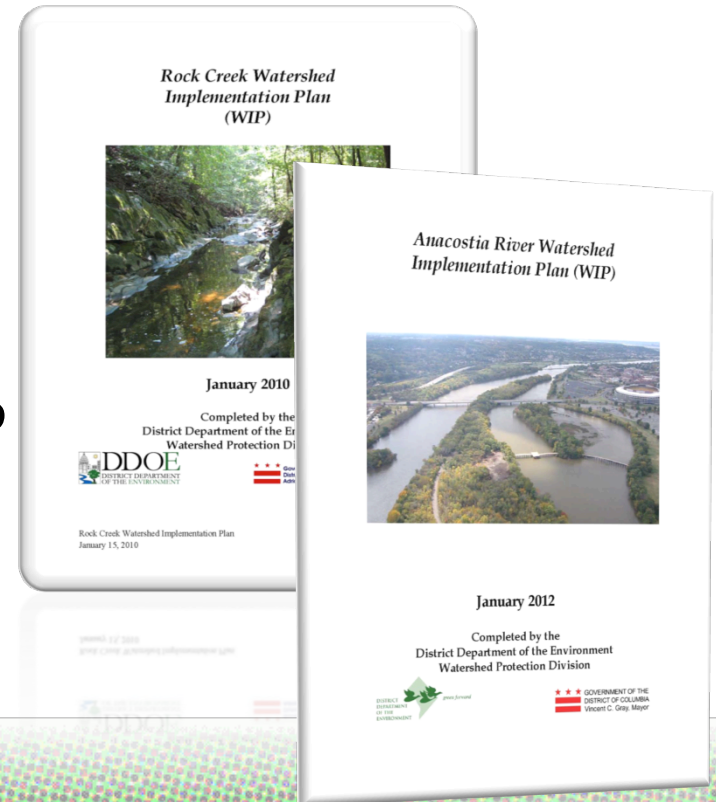


# Methodology for Stakeholder Involvement and Public Outreach



# Integration with Other Watershed Planning Efforts

- **IP is enforceable requirement**
  - Primary plan for organizing control of MS4s
- **Other plans will inform IP**
- **Drivers from other plans**
  - Habitat restoration, biological recovery, etc.



# Methodology for Funding the IP

- **Regulated development**
- **Directly funded projects**





# Methodology: Path Forward and Next Steps

## December 2013

1. Distribute Meeting Minutes/Presentation
2. Incorporate DDOE Comments into Methodology
3. Distribute to Stakeholders

## January 2014

Receive feedback from stakeholders

## February 2014

Reconvene with stakeholders

# Spring 2014: Path Forward and Next Steps

## Model Development

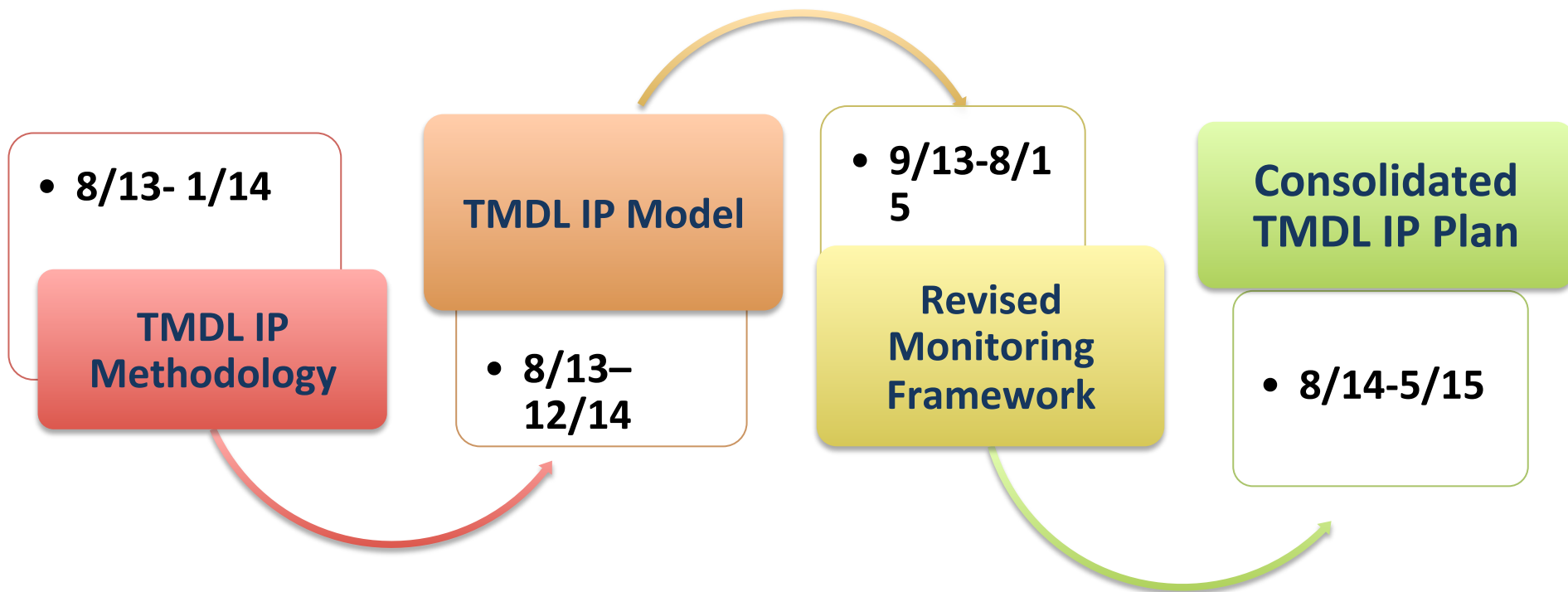
- Draft Baseline

## Revised Monitoring Framework

- Crosswalk

## Stakeholder Meetings

# Project Schedule



# Questions/ Comments?