DISTRICT DEPARTMENT OF THE ENVIRONMENT

CONSOLIDATED TMDL IMPLEMENTATION PLAN & REVISED MONITORING FRAMEWORK

(STAKEHOLDER GROUP MEETING)

MEETING MINUTES

Meeting Date: March 16, 2015

Meeting Location: DDOE

Approval: FINAL

1 ATTENDANCE

Name	Organization	Present
Jeff Seltzer	DDOE	Y
Jonathan Champion	DDOE	Y
Brian Van Wye	DDOE	Y
Martin Hurd	DDOE	Y
Mary Searing	DDOE	Y
Nicoline Shulterbrandt	DDOE	N
Collin Burrell	DDOE	Y
Sarah Bradbury	DDOE	Y
George Onyullo	DDOE	Y
Jersusalem Bekele	DDOE	Y
Mohsin Siddique	DC Water	Y
Anouk Savineau	LimnoTech	N
Dan Herrema	LimnoTech	Y
Tim Schmitt	LimnoTech	Y
Heather Bourne	LimnoTech	N
Ben Crary	LimnoTech	Y
Chancee Lundy	Nspiregreen	Y
Veronica Davis	Nspiregreen	Y
Ryan Campbell	MDB, Inc.	Y
Tim Fields	MDB, Inc.	Y
Becky Hammer	NRDC	Y
Kaitlyn Bendik	EPA Region 3	Y
Meredith Upchurch	DDOT	Y
Jeff Oser	DDOT	Y
Jenny Molloy	EPA	Y
Eva Birk	EPA	N
Karl Berger	MWCOG	Y
Kate Rice	DC BIA	Y
Sarah Rispin	Potomac Riverkeeper	N
Phillip Musegas	Potomac Riverkeeper	Y
Mike Bolinder	Anacostia Riverkeeper	Y
Ross Mandel	ICPRB	Y
Hye Yeong Kwon	CWP	Y

Attendance sheet is attached (Attachment A)

2 MEETING PURPOSE

The purpose of this Stakeholder Group meeting was to discuss the elements of the Consolidated TMDL Implementation Plan.

3 MEETING LOCATION

Building: District Department of Environment

Conference Room: First Floor

4 MEETING START

Meeting Actual Start: 1:03 PM

5 AGENDA

Welcome

Mr. Jonathan Champion, DDOE, welcomed everyone to the meeting. This meeting will be one of the last stakeholder meetings before submission of the Implementation Plan (IP) to EPA in May 2015.

- **Introductions:** Everyone stated their name and the organization they represent.

- **Overview of the Agenda:** Mr. Tim Schmitt, LimnoTech, provided an overview of the meeting agenda and the purpose of the meeting. The meeting focused on several sections of the Implementation Plan. The elements of the IP presented at the meeting included milestones and benchmarks, tracking progress, adaptive management, funding, and stakeholder involvement.

Milestones and Benchmarks

- The MS4 permit defines milestones and benchmarks for the IP.
- Milestones: Mr. Schmitt stated that milestones are interim steps towards meeting the Waste Load Allocations (WLAs). The milestones are set at 5-year increments until the ultimate attainment year for WLAs. The milestones measure the physical progress towards controlling pollutants. Milestones are enforceable.
    - Major Basin level: The milestones are set at the major basin level. Developing milestones for all 206 WLAs would be a challenge to manage and track progress. In addition, setting milestones at the major basin level helps mitigate uncertainty in the spatial and temporal projections of the modeling. Mr. Jeff Seltzer, DDOE, added that if milestones were developed for every WLA it would require using a more conservative milestone number to mitigate for the uncertainty in the modeling. Setting milestones at the major basin level allows DDOE to develop more aggressive milestones.
    - Milestones are based on current modeling input and the best available data. With adaptive management these milestones can be revisited and potentially revised over time.
    - Developing Milestones:
        - 2016 to 2040: Milestones for the time increments from 2016 to 2040 are based on the amount of area in acres controlled by BMPs. Mr. Schmitt stated that projections of the area controlled by BMPs came from the IP Modeling Tool. The primary driver for controlling area is the expected BMP implementation as a result of compliance with DC Stormwater regulations. The DC Office of Planning (OP) tracks development and redevelopment projects spatially and temporally, and these data were used in the IP Modeling Tool to make projections of when and where area would be controlled by BMPs.
        - 2040 and Beyond: Milestones for the time increments from 2040 to when all WLAs are met are based on the amount of load reduction of specific

pollutants. Mr. Schmitt stated that OP had data on where development and redevelopment were projected to occur only through 2040. After 2040, the project team used projections of predicted load reductions by extrapolating the rate of development since there is uncertainty about when and where development will occur.

- 2100: By 2100, it was assumed the entire MS4 area is retrofitted with BMPs. After 2100, it's assumed that additional load reductions will occur from new BMPs technologies and improved efficiencies.

- Example: 2020 Milestones
  - Mr. Schmitt provided an example of how the data is presented at the major basin level. In 2020, it is projected that a total of 1,474 acres will be controlled by BMPs.
    - Mr. Karl Berger asked if the numbers presented were the delta or the cumulative acres of controlled area. Mr. Schmitt stated that the 2020 number represents all new area controlled between 2016 and 2020. However after 2020, the area controlled is cumulative. In addition, all acres are assumed controlled to a 1.2-inch storm.

- Benchmarks: Mr. Schmitt stated that benchmarks are quantifiable annual pollutant load reduction goals to assess progress towards the milestones. They aid in adaptive management.
  - Developing Benchmarks
  - The benchmarks were developed for every individual WLA based on an average annual amount of pollutant load reductions. The benchmark for each WLA was calculated by dividing the total reduction needed by the total number of years it takes to reach attainment as projected by the modeling.
    - Mr. Schmitt provided an example of how the annual benchmark is presented for each waterbody segment. He provided the example using the Fort Stanton Tributary Watershed. If there is no WLA for a given pollutant or if the WLA has been achieved as of 2014, a benchmark was not developed.
    - There are 45 water body segments (main stems, tributaries and sub tributaries) with individual benchmarks in pound per year reductions (MPN/yr for bacteria). There will be one table of benchmarks for each of the 45 water body segments.
    - Mr. Berger noted that Fort Stanton does not have a benchmark for TP or TN, but improvements along that water body help improve the Anacostia Watershed. Mr. Schmitt clarified that, while Fort Stanton does not have a WLA for TP or TN, Fort Stanton is part of the larger Anacostia watershed. The larger Anacostia watershed does have WLAS for TN and TP. So any work done in the Fort Stanton watershed that reduces TN or TP would get credit towards the Anacostia TN and TP WLAs.
    - Ms. Jenny Malloy asked for clarification on which color was the benchmark on the example. Mr. Schmitt stated the benchmark is for the tan area, which is where the WLA allocation applies for this segment.
    - Ms. Malloy asked for clarification on why the benchmarks are quantity per year. For example, what happens if nothing is happening each year, then 8 years later a BMP is installed that reduces the pollutants. Mr.

Schmitt stated the primary method is implementation of the stormwater regulation. Since there is uncertainty where development and redevelopment will occur the project team decided to set an annual average benchmark. With an adaptive management strategy and direct investment, this allows DDOE to target areas for BMP implementation, if necessary. If benchmarks are not being met, then DDOE will revisit its strategy and perhaps do direct investment or take some other action to meet its goals.

- Mr. Phillip Musegas asked if there would be annual public reporting on the benchmarks. Mr. Champion stated that annual reporting of benchmarks, as well as progress toward interim milestones, will be included as part of the annual reporting process under the MS4 permit.
- Ms. Meredith Upchurch asked for clarification of the black line on the map. Mr. Schmitt stated the black line in the green area is the full watershed. The tan is where the original TMDL defined the WLA for just that tributary.
- Mr. Bolinder inquired about the 44 WLAs that have been attained and if it is possible confirm that they remain attained in the future. Mr. Schmitt confirmed that this could be modeled. If and when TMDLs are revised, the WLAs that have been attained can be revisited through the current modeling tool.

Tracking Progress

The MS4 permit provides guidance for tracking progress. There are three basic components: modeling, monitoring, and other programmatic tracking.

- Modeling: The main method for tracking progress towards the WLAs, milestones and benchmarks is the IP Modeling Tool. The IP Modeling Tool has been developed to track BMP Implementation. For example, when a site needs a stormwater management permit, the information on BMP type, drainage area, and location is captured by DDOE's stormwater management database. This information can then be put into the model, and the model can be run to evaluate progress in meeting WLAs.
    - Mr. Bollinger asked what happens if a BMP is not being maintained correctly. Mr. Schmitt stated the IP Modeling tool allows DDOE to delete and update BMPs. Mr. Seltzer added that the DDOE stormwater management database also tracks maintenance and compliance. The database in the modeling tool will be updated periodically to match the stormwater management database.
    - Ms. Molloy asked for clarification on how additional BMPs that don't trigger the stormwater regulations will be tracked. Mr. Schmitt stated that in the IP Modeling Tool BMPs that were not designed to obtain the 1.2-inch and older BMPs were modeled differently than BMPs designed to 1.2-inch storm. Mr. Brian Van Wye stated the stormwater database captures anything that goes through a plan review process including projects too small to trigger stormwater regulations. For example, the database includes projects where people are trying to sell Stormwater Retention Credits or get discounts on their stormwater fees. DDOE has the data on what has been inspected, if the size changed, if the BMP is being

maintained. Mr. Schmitt added the model can still handle BMPs that do not meet the 1.2 inch criteria as long as they are flagged in the database.

- Monitoring: Data from DDOE monitoring programs will be used to provide additional data when modeling shows achievement of WLAs. For example, special studies for individual watersheds or BMPs can be monitored to show how the BMP is functioning, and if a WLA has been attained. Monitoring is important to contribute data in cases where modeling has shown a WLA has been achieved.
- Other Programmatic Tracking: This includes programs such as outreach and education, and catch basin cleaning. Due to current data and information limitatiosn, these programs are not currently quantified, but are helping with reducing load to meet WLAs. DDOE plans to collect additional data on other methodologies that are helping reduce loads. This will help inform adaptive management.
    - Mr. Berger asked about urban nutrient management. Mr. Hurd stated that DDOE does not have all the data requirements to report from the Bay. Urban nutrient management is a large part of the WIPs is for NPS and Federal agencies. Mr. Schmitt stated that right now the IP Modeling Tool does not take credit for other programmatic activities.
    - Mike Bolinder asked if other jurisdictions have developed a methodology to quantify reductions for these types of other programmatic activities. Mr. Van Wye stated that DDOE and the Alice Ferguson Foundation are working on study to quantify education programs. They are going to measure through surveys before and after the education campaign to quantify the behavior change.
- General Discussion on Tracking
    - Ms. Becky Hammer asked for clarification on not intending to fact check using monitoring until there is WLA attainment. Mr. Schmitt clarified that MS4 permit indicates modeling will be used to track progress. Mr. Champion added DDOE will still be collecting wet weather outfall data to track the quality of the stormwater management program. In addition, the stream body health will be tracked through ambient monitoring.
    - Dr. Siddique asked is DDOE has the capability and capacity to track progress in house. Mr. Seltzer stated that LimnoTech will train staff on the IP Modeling Tool. Mr. Schmitt added the original model was MS Excel based, but has been migrated to a graphic user interface. DDOE will be able to run scenarios and track every TMDL in the District graphically.

Adaptive Management

The purpose of adaptive management is to provide the flexibility to change course if there is inadequate progress towards the milestones.

- Process: Adaptive management consists of four step iterative process: (1) develop monitoring plan to inform adaptive management, (2) conduct monitoring, (3) evaluate monitoring results in the IP Modeling Tool, and (4) adjust IP as needed. If the results show progress then there is no need to adjust.
    - Responses to inadequate progress: If the result show inadequate progress then options may include increasing implementation rates, altering implementation

strategies or other actions. For example, maybe the 1.2 retention standard from the stormwater regulations is not sufficient.

- Discussion
    - Mr. Berger referred back to the Fort Stanton example in the benchmarks. He wanted to know what happens if in 25 years there is no development and redevelopment in that area. Mr. Seltzer stated that one action could be directing credits to certain areas. Mr. Schmitt responded that since everything is being analyzed on an annual basis, DDOE will not have to wait 25 years to know if they are behind. Mr. Van Wye added that DDOE will develop a portfolio of projects that are credit generating. Therefore, DDOE can tap into private resources when developers need to purchase offsite credits.

Funding

IP funded based on current funding sources, which include DDOE and non-DDOE controlled sources.

- DDOE Controlled Sources
    - Direct investment: DDOE has about $9.0 million per year for direct investment in new BMP implementation. There are multiple sources of funding, including NFWF, EPA's Clean Water SRF, and others. In addition, there is private funding of BMPs, as well as funding from other City agencies (e.g., DDOT). DDOE believes that the IP as currently proposed is sustainable based on what programs have been supported in the past.
        - Mr. Berger clarified that the $9.0 million is based on 2014 dollars and current infrastructure. Mr. Schmitt stated that was correct.
        - Ms. Hammer stated that $9.0 million a year is dramatically less than other local jurisdictions. She wanted to know why there was not any analysis on additional resources, policy changes, or additional investment to see if it can speed up implementation. She stated that from a technical standpoint the IP is robust; however from a policy perspective it does not seem ambitious enough. She stated that although the plan is technically sound it seems to lock the agency into doing what it's already doing and not raising the bar.
        - Mr. Burrell asked Ms. Hammer how she did the comparison, for example did she look at dollars per area to normalize the numbers?
            - Ms Upchurch stated the numbers are misleading because it does not include all District examples, such as public investment from DDOT.
            - Mr. Van Wye stated that the difference between DC and Prince George's County is the county is paying for its investments upfront by issuing bonds for $100 million where DC spends over time.
        - Mr. Bolinder stated that the stakeholder community is looking forward to the next permit. They were hoping to see funding levels above the current level of effort. Mr. Seltzer stated that DDOE wants to make the most progress as fast and as cost effective as possible. Mr. Champion stated DDOE is looking forward to funding suggestions from the stakeholder community.

        - Mr. Bolinder stated that it would have been helpful to see levels of implementation by other funding sources so DC could measure progress against other jurisdictions. Mr. Van Wye stated that DDOE has some ideas, but needs to figure out internally what makes sense strategically, but also needs to consider policy changes take time.
    - Non-DDOE Controlled Funding
        - A significant portion of the funding will come from private sources as BMPs are implemented to meet the requirements of the Stormwater Management Rule.
        - There is funding from other agencies such as DDOT, which implements BMPs in the public right of way as part of construction projects.

Public Outreach

Ms. Chancee Lundy, Nspiregreen, provided an overview of the public outreach plan. For the last 1.5 years, this stakeholder group has convened to shape the development of the IP and revised monitoring framework. DDOE has developed a plan to reach out to other stakeholders.

- Outreach Goals and Measures of Success: The main goal of outreach is making sure that people of different demographics are participating. This includes the general public and special interest groups. In addition, another primary goal is to provide updated information on the implementation plan status.
- Methods: Some of the methods are public meetings, roadshows to community groups and environmental organizations, and using the website as a tool to keep folks informed on progress.
- Discussion
    - Mr. Bolinder stated that one thing that he found effective is to go to the different community meetings such as Advisory Neighborhood Commissions (ANC) and provide information. Ms. Lundy stated that attending ANC and civic association meetings will depend on DDOE's ability to attend several meetings. Mr. Seltzer added they have a strategy to see if there are other meetings that DDOE can piggyback on such as the Anacostia Waterfront Initiative.
    - Ms. Upchurch asked about the number of meetings. Ms. Lundy stated that there would be at least one public meeting east of the Anacostia River. The meeting will not focus on long-term public outreach, but be specific to the IP. NRDC offered to host a meeting with their organization.
    - Mr. Bolinder stated the meetings should be prior to the public comment period or very early in the comment period.
    - Mr. Musegas suggested the DDOE provide the presentation in advance of the meeting for the special interest groups. Mr. Seltzer stated that it was possible to put a general presentation on the website. Ms. Lundy stated that the public meetings would be open house style with boards and not presentation only (theatre style).
    - Mr. Musegas asked if DDOE would provide updates to the public during the implementation phase. Mr. Seltzer stated that DDOE meets quarterly with environmental groups, but they haven not thought about long-term outreach.

Next Steps

- March 2015: Continue to review and refine benchmarks and milestones, train DDOE staff on the IP Modeling Tool, and receive additional input from stakeholders.

- April 2015: Continue to review and refine draft IP and Revised Monitoring Program.
- May 2015: Draft Implementation Plan and Revised Monitoring Program will be submitted to EPA by May 9, 2015.

Discussion

- Mr. Bolinder stated that each of the universities in DC have students that want to do monitoring. This is an opportunity for DDOE to develop protocols for people that want to collect data. Mr. Seltzer stated that DDOE needs to have a discussion internally. Dr. Siddique stated some universities have their own BMPs. Perhaps there is an opportunity to monitor those.
- Mr. Bolinder requested a copy of the WLAs diagram with the blue and green dots. Mr. Dan Herrema, LimnoTech, stated that it is within a document that currently posted on the website. The project team will make it into a single document and share it.

6 POST MEETING ACTION ITEMS

Action	Assigned To	Deadline
Send the meeting minutes, presentation, and list of attendees out to participants	Chancee` Lundy	
Update the project website	Chancee` Lundy	

7 DECISIONS MADE

- None

8 NEXT MEETING

Next Meeting: TBD

9 MEETING END

Meeting End: 2:52 pm

10 ATTACHMENTS

- Presentation with Agenda