

Anacostia Watershed Management Committee

-DRAFT-

Thursday, June 2, 2016

10:00 a.m. - 12:30 p.m.

COG Training Room 1

Meeting Attendance:

First Name	Last Name	Organization
Sheila	Besse	DOEE
Steve	Bieber	MWCOG
Curtis	Dalpra	ICPRB
Frank	Dawson	MCDEP (Acting Chair)
Jeffrey	DeHan	PGDOE (by phone)
Marian	Dombroski	AWCAC
Brenda	Feit-Majedi	USGS
Jim	Foster	AWS
Matt	Gallagher	MWCOG
Upal	Ghosh	UMBC
Tanya	Gossett	NPS
Dana	Jackson	USDA
Catherine	King	EPA
Michelle	Kokolis	MWCOG
Lorena	Kowalewski	MWCOG
Jerry	Maldonado	PGDOE (by phone)
Gretchen	Mikeska	DOEE
Aubin	Maynard	MWCOG
Dev	Murali	DOEE
Apurva	Patil	DOEE
Harriett	Phelps	UDC
Fred	Pinkney	USFWS (by phone)
Steven	Reid	UMD
Greg	Sandi	MDE
Mark	Shupe	Tetra Tech
Phong	Trieu	MWCOG
Charlie	Walker	USGS
Timothy	Wilson	USGS

1. Call to Order/Introductions

Frank Dawson (MCDEP), filling in for Chair Pam Parker, called the meeting to order and requested that everyone present introduce themselves.

Action/Outcome: The 3/10/16 meeting summary was approved unanimously.

2. Anacostia Partnership Update

Ms. Michelle Kokolis (MWCOG) asked that everyone check their contact information on list that was being passed around so that COG Staff can update the Management Committee contact list.

Mr. Aubin Maynard (MWCOG) explained that COG had released the Terrain360 map, Anacostia Tributary Trail System, including a press release. Mr. Maynard briefly showed the live map and described other changes to the www.anacostia.net website. Several additional maps (watershed, IBI, historical and elected officials) are also available. Mr. Maynard encouraged members to share and advertise the mapping resources. At the request of members, the press release and links will be re-sent along with the meeting summary. Mr. Phong Trieu (MWCOG) added that COG is working on an update to Anacostia Watershed Forest Management and Protection Strategy.

3. Approval of the FY17 Work Program & Budget

Mr. Phong Trieu (MWCOG) provided a brief overview of the FY17 Anacostia Partnership Work Program & Budget (WP&B). Mr. Trieu indicated that there would be no increase to Member contributions for FY17. He then highlighted key tasks from the WP&B including revisions to the Targets & Indicators Report, tree canopy and gully analyses, continued work with the Anacostia Trash Reduction Workgroup, fish passage monitoring, tree planting, continued work on the Workforce Development project, and administration of the Anacostia Partnership. No questions were asked. Sheila Besse (DOEE) made a motion to pass the FY17 WP&B with Jerry Maldonado (PGDOE) and Dana Jackson (USDA) seconded. The FY17 WP&B was passed unanimously and will be presented at the June 23, 2016 Steering Committee meeting for final approval.

4. AWCAC Chair Report

Mr. Aubin Maynard (MWCOG) provided an overview of the May 10th Anacostia Watershed Citizens Advisory Committee (AWCAC) meeting. Anacostia Watershed Groups and NGOs shared recent successes, including Friends of Sligo Creek hosting fourteen litter cleanup sites, Friends of Quincy Manor organized 120 volunteers for Earth Day cleanups, and the Anacostia Watershed Society announced there were seven acres of SAVs found in the tidal Anacostia. Two sub-committees have formed focusing on fish consumption outreach and broadening participation by the Hispanic community. The Hispanic Outreach sub-committee has successfully pulled in participation from a number of Hispanic organizations and are attempting to organize a Hispanic Environmental Festival in October. The group will be formulating details

and looking for support during the coming months. Mr. Maynard encourage MC members to contact him for more information.

Marian Dombroski (AWCAC Vice-Chair) explained the fish consumption sub-committee has been exploring signage options to inform the public of fish consumption advisories. Maryland Department of Natural Resources staff indicated that the state does not put up signage because they've found it is quickly vandalized and not worth the cost. Instead, they focus on educational materials through WIC and low income health clinics. The group will continue to explore options to address fish consumption.

5. Anacostia Trash Reduction Workgroup

Ms. Kokolis (MWCOG) provided an update on the activities of the Anacostia Trash Reduction Workgroup (ATRW). She indicated that COG staff have been working with staff from the Anacostia jurisdictions to standardize the metrics used for reporting MS4 and TMDL related trash reductions. The group has initially been focusing on the metrics related to volunteer cleanups. These include determining the weight allocated to a full, 30-gallon trash bag, how MS4 area reduction factors are calculated, and standardizing the wet weight reduction factors for plastic bottles, glass bottles and aluminum cans. Ms. Kokolis explained that the next set of metrics the ATRW will be looking at are the reductions associated with plastic bags and street sweeping. The group is currently working on standardizing a method for calculating the annual load of plastic bags and the reductions associated with bag laws. They are also gathering and assessing all available information for street sweeping. Mr. Dana Jackson (USDA) asked if the metrics would be done/approved in time to impact contracts that are currently being processed. Ms. Kokolis explained that metrics the group is working on are only related to volunteer cleanups so they will have no impact on contracted work. Ms. Marian Dombroski (AWCAC) asked if COG would be providing information to the watershed groups regarding the new metrics so they know how to report their data. Ms. Kokolis explained that the new metrics will not impact how the watershed groups conduct their cleanups or report their results because all reductions will be applied on the back end by the jurisdictions.

Ms. Kokolis also provided an update on the Anacostia Accord. She indicated that discussions about the Accord started at the Trash Summit and the process is being led by Montgomery County and explained that the Anacostia Accord will be an Interjurisdictional agreement to demonstrate jurisdictions' desire to work collaboratively to reduce trash in the Anacostia. It will acknowledge importance of Anacostia River resources, celebrates the jurisdictions' achievements in trash reduction, and recognize the importance of working together to achieve further reductions. While the effort is being led by Montgomery County, they are working closely with the other members of the ATRW as well as the jurisdictions PIOs. The Accord Signatory Date is targeted to occur on National Public Lands Day (September). At this time, it is not clear who all will sign the Accord in addition to the County Executives and the Mayor, but there has been conversation about asking the Federal partners that play a key role in the trash

reduction process, including EPA and NPS, to be signatories. DOEE staff are taking the lead in reaching out to Federal partners.

6. Anacostia River Sediment Project Update

A. Anacostia River Sediment Project, Results of the Phase 1 Remedial Investigation

Mr. Mark Shupe (Tetra Tech) provided an overview of results from the Phase 1 Remedial Investigation (RI) of the Anacostia River sediments. The objectives were to describe the physical characteristics of sediments that make up the river bottom, determine the nature and extent of contaminants, and assess the sediments for human health and ecological risks. Field sampling was performed from July-October 2014 and April-May 2015; datasets from the Washington Navy Yard, CSX, and Pepco were included and analyzed as part of the RI. In addition, sediments were collected from the Potomac River (upstream of confluence with the Anacostia River) to serve as background reference (e.g., what sediment contamination would look like without the point sources that occur in the Anacostia watershed).

Mr. Shupe presented the results by breaking the sampling efforts into an upper segment and lower segment, with the CSX bridge as the separation. Due to the extremely complex nature of this study, Mr. Shupe mentioned he would be focusing this presentation on PCBs, but other constituents of concern include dioxins, PAHs, pesticides, and trace metals. Generally speaking, the surface sediments of the upper segment were characterized by more sand and gravel and much lower levels of organic carbon than sediments from the lower segment. In addition, there were lower concentrations of surface sediment PCBs in the upper segment, aside from very elevated (relative to background) PCBs just below the Pepco site; this is due to the fact that PCBs and other organic pollutants are often associated with carbon-rich sediments. However, there were significantly elevated PCB concentrations in the lower segment of the river. Surprisingly, there were also elevated PCB concentrations in sediments of the Washington Channel, apparently being carried via storm sewers from some currently unknown source(s). Subsurface sediment cores (20 ft. deep) revealed elevated PCBs in sediments up to 20 ft. deep, particularly at known point sources (PEPCO, Kenilworth Park Landfill, Southeast Federal Center, Washington Navy Yard). Pore water samples found elevated PCBs as well, with higher concentrations being found in the lower segment.

Ecological toxicity tests found mixed results, with some areas in both the upper and lower segments having more toxic sediments than controls. However, no trend was readily discernible; these data gaps will inform additional toxicity tests that will be pursued in Phase II. Whole fish tissue PCB concentrations were highest in the top trophic level species' (e.g.

largemouth bass), suggesting biomagnification of these chemicals may be occurring. In addition, PCB concentrations in fish tissue generally increased moving downstream.

Human health risk assessments showed there was a more serious hazard to consumption of fish caught below the CSX bridge than consumption of fish caught above the bridge. The drivers to the risk are PCBs, pesticides, and arsenic. There also was some hazard to direct exposure of humans to sediment and surface waters, with risk drivers being PAHs (sediment and surface water) and dioxins (surface water only).

Phase II sampling activities will occur between 6/1 and 6/15 and will address data gaps that were found in Phase I data analysis. A record of decision (ROD) for a river-wide cleanup remedy is expected to be reached by July 2018.

- Ms. Dombroski asked if annual dredging at the Bladensburg marina impacted the study. Mr. Shupe replied that the dredging only removes newer sediments, which makes room for more sediments.
- Mr. Dana Jackson (USDA) asked who is the driving authority under the CERCLA process. Mr. Murali answered that DOEE is the main agency, with NPS and other federal agencies support.
- Mr. Jackson also asked if they employed ponar sampling for the surface sediment collections. Mr. Shupe replied yes, grab samples were collected with Ponar samplers.

B. Sediment and Contaminant Mass Loadings from Small Tributaries to the Anacostia River

Dr. Tim Wilson (USGS) gave an overview of expected tasks the USGS will be conducting to estimate sediment and contaminant mass loadings from small tributaries. Dr. Wilson was involved in a 5 year research project in Hudson River tributaries, where he learned a number of lessons that will be applicable to the Anacostia sediment study. The goals of the Anacostia tributary study are to measure suspended sediment and organic contaminant loads from major tributaries (NE and NW branches, Lower Beaverdam Creek, Watts Branch, and Hickey Run) and to determine relative concentrations of suspended sediments and organic contaminants during base-flow and storms in smaller tributaries. Currently, there are gage and water quality monitoring stations in NE Branch, NW Branch, Watts Branch, and Hickey Run. However, very little information is known about the discharge and associated contaminant loadings from Lower Beaverdam Creek, so the first task of the study is to install a gage there. The equipment will allow for the tidal influence to be removed from discharge totals. Task 2 will be to create models for sediment and particulate organic carbon loads in all 5 major tributaries. The goal will be to sample one storm per month for 12 months, plus 1 base-flow. Task 3 will be to measure concentrations of PCBs, PAHs, and organo-chlorine pesticides by collecting 1-10 grams of suspended sediment during 4 storm events in the 5 major tributaries. Task 4 will be to provide

representative concentrations of suspended sediments and organic contaminant loads for small tributaries, which contribute less than 1% of the water volume to the mainstem. The goal for task 4 is to sample 1 stormflow and one baseflow each for Nash Run, Ft. Dupont tributary, Pope Branch, and Ft. Stanton tributary.

- Mr. Stephen Reid (UMD) asked if it's possible to separate out streambank and other sediment. Dr. Wilson replied that is not possible.
- Mr. Trieu questioned if they'll also be doing nutrient analyses from these surveys. Dr. Wilson replied that for right now, they will not be doing nutrient analyses.

C. Ongoing Inputs of Persistent Organic Pollutants to the Anacostia River

Dr. Upal Ghosh (UMBC) gave a brief presentation on new research methods for detecting and quantifying ongoing pollutant (PAHs, PCB congeners, select pesticides) inputs, particularly new sediment deposition and new dissolved pollutants. For pollutants that are found in very low concentrations but in high water volumes, there is the potential for large mass loadings of those pollutants. During baseflow conditions, contaminant loads from suspended sediments and DOC are low, so free contaminants could dominate the total concentration. Those free contaminants can be measured using passive samplers (pore water and water column), while direct measurements of DOC and SS can be conducted, providing a reasonable estimate of pollutant concentrations associated with DOC and SS. However, during stormflow events, SS-associated pollutant loads dominate the total concentrations. Suspended sediments can be collected and associated pollutants can be measured, allowing for the estimation of pollutant concentrations associated with DOC and remaining free concentrations. These measurements/estimations of pollutant levels, combined with flow measurements, pollutant accumulation in deployed mussels, and measurements of air-water and sediment-water fluxes, will provide valuable input to the RI and feasibility study. Deployed mussels, passive samplers, and flow measurements will occur at a number of mainstem and tributary sites within the watershed.

D. Use of Caged Mussels to Monitor Bioaccumulation of PCBs, Chlorinated Pesticides, and PAHs in Anacostia River Tributaries

Dr. Fred Pinkney (USFWS) described the goals and objectives of a DOEE-funded study to evaluate current sources of pollutants in Anacostia River tributaries by deploying freshwater mussels (*Elliptio complanata*) and passive samplers. This will be essential to understand loadings and bioavailability of PCBs, pesticides, and PAHs entering from tributaries to evaluate the potential for recontamination. The first field season will begin in June 2016.

Objective 1 will be to compare concentrations in mussels exposed for 90 days at 6 locations (plus one reference location), which will allow the researchers to identify tributaries where contaminants are bioavailable to the greatest extent. The six locations are Upper Beaverdam Creek, NE Branch, NW Branch, Lower Beaverdam Creek, Watts Branch, and Hickey Run. Each site will receive 6 cages and 8 mussels per cage. After the 90 days, 36 of the 48 mussels will be analyzed for contaminant concentrations.

Objective 2 will be to evaluate the condition of those mussels, based on their glycogen storage as a measure of health condition, to inform the possibility of mussel reintroduction(s) to the Anacostia river and/or tributaries. After the initial 90 days, the remaining 12 mussels per site will stay for an additional 60 days to determine glycogen storage. Results from the first field deployment (2016) will inform the site selection in 2017. For example, if survival at Hickey run is low, a new site will be selected for use instead. The final report in manuscript form is expected to be complete by April 2018.

- Dr. Harriet Phelps (UDC) asked if the number of mussels they're using will be enough for statistical significance. Dr. Pinkney said the research is based on a Great Lakes study, and he thinks the numbers will be sufficient.

7. Member Updates

Ms. Sheila Besse (DOEE) informed the committee that there would be a ribbon cutting for the Nash Run restoration project on Friday, June 3rd.

Ms. Marian Dombroski (AWCAC) announce that Saturday, June 4th is Learn to Row day at Bladensburg Waterfront Park.

Ms. Catherine King (EPA) announced that Katherine Antos was hired as the Anacostia Ambassador. Ms. Antos will be working out of the Anacostia Waterfront Trust.