

# Updating DC Toxics TMDLs

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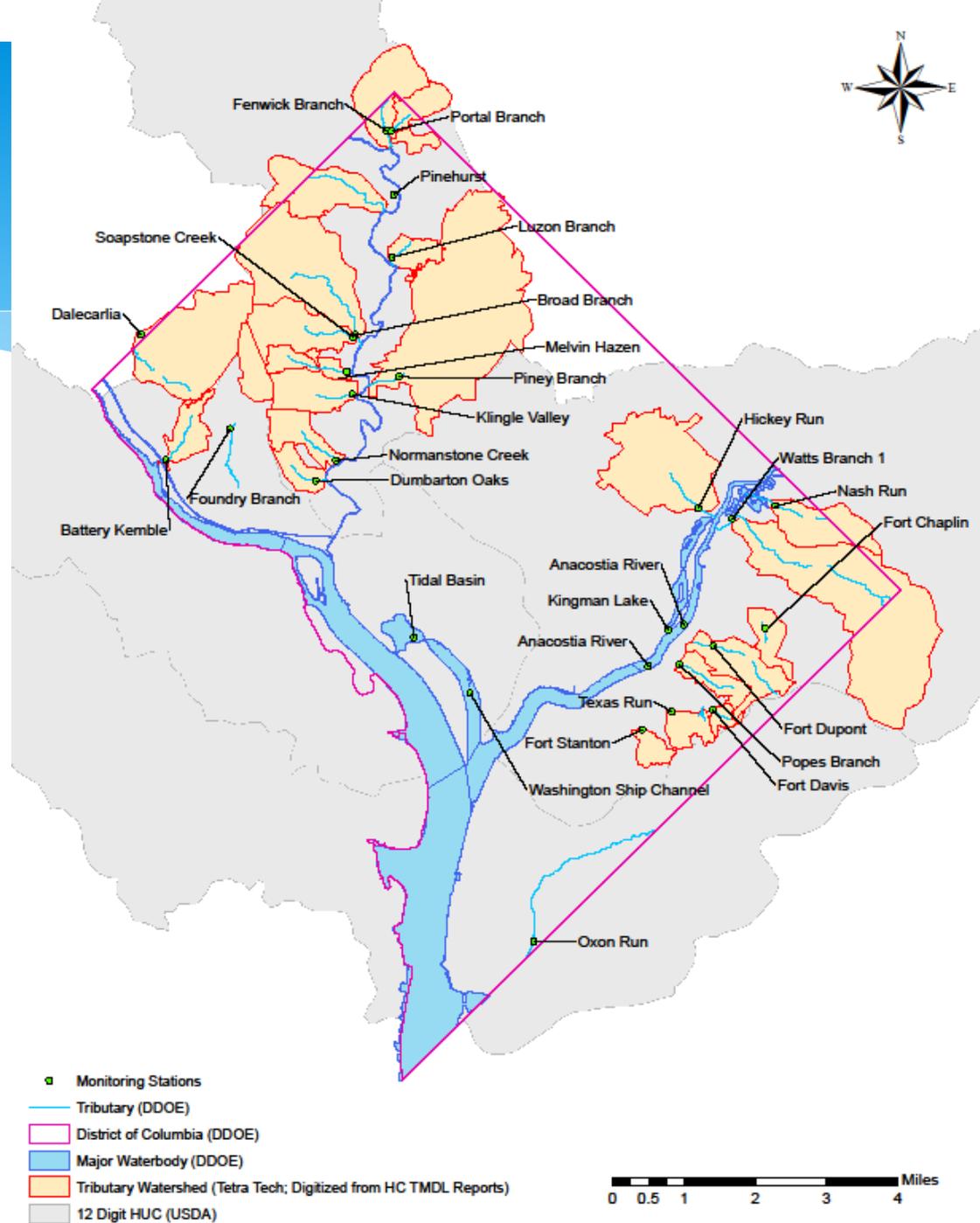
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# Background

- \* In the early 2000's, TMDLs were developed across the District to address toxic impairments (metals, pesticides, PCBs, and PAHs)
- \* TMDLs lack daily load expressions
  - \* Based on a challenge, the court ordered the existing TMDLs to be vacated, but delayed vacatur until January 1, 2017 to allow time for replacement TMDLs to be developed
- \* Tetra Tech monitored for water quality from October 2013- January 2014

# DC Watershed



# DC 2014 §303(d) List



# The Integrated Report

Every two years, CWA and EPA funding requires the submission of §305b report and §303d list to Congress and US EPA .

This report, called the Integrated Report (IR), includes info required by section §305(b) – water quality assessment and §303(d) list of impaired waters

# Process

Request for water quality data – January 2014

Use existing and readily available data to make WQ use attainment and §303(d) list category determinations

Draft IR must be made available for public review and comment – August 2014

Submit IR and methodology for categorizing waters to US EPA for approval –December 2014

US EPA approved on January 21, 2015

## §303(d) List Categories

Category 1 – waters with status of all designated uses being met

Category 2- waters meet some designated uses but insufficient data to determine if remaining uses are met

Category 3- Insufficient data on waters to determine if any designated uses are met

Category 4- waters are impaired or threatened, but TMDL is not needed

Category 5- waters are impaired or threatened and a TMDL is needed

TMDL listing identifies the pollutant causing impairment in a waterbody segment. A single waterbody can have multiple TMDLs. Some waterbodies have multiple segments-Potomac River, Anacostia River, Watts Branch, and Rock Creek.

# Data Use

## 1. Data reviewed

Ambient data 2009-2013

MS4 data 2007-2011

Stream survey data 2009-2013

Benthic Macroinvertebrate samples from 2005-2009

2009 fish tissue study report

2013-2014 supplemental toxics monitoring data collected by Tetra Tech

## 2. Designated Uses and Data

Ambient and stream data for the primary, secondary, protection of fish, shellfish and wildlife uses

Fish tissue study for the protection of human health related to fish consumption use

Field observations during ambient data collections for the navigation use

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- ❖ Toxics data interpretation was refined for 2014 list. Data review indicated that original (1998) 303(d) list toxics (PCBs, PAHs, organochlorine pesticides, metals) listings were based on limited data. The primary limitation was that the data from the Anacostia River (mainstem) was used to make support decisions for the tributaries.
  - ❖ The 2013- 2014 study was an effort to fill data gaps and to assist in the preparation of daily load calculations of existing toxics TMDLs. The study also served the purpose of verifying impairment, attainment, or a need for additional data to determine impairment.

# 2014 §303 (d) List Highlights

## Category 3 listings

Tributaries that were previously listed due to indirect evidence of impairment (based on fish tissue data collected in the rivers) placed in category 3

## Category 4 listings

Some 2012 List Category 4a listings moved to Category 3 or were removed from the list

If the pollutant confirmed at actionable level, in historic data or 2013-2014 study, remain in Category 4a.

If no water column data in historic record, or 2013-2014 study did not support original listing, that pollutant was removed from the list for 2014

Fish tissue study data- Potomac and Anacostia River listings with pollutant at actionable level, either in category 4 if TMDL exists or 5 (if TMDL not in place)

## Examples

- Lead 2012 category 4a listing for Kingman Lake removed as available data indicated that an impairment does not exist due to the action level of 1.5ppm for fish tissue not being exceeded.
- DDD 2012 category 4a listing for Nash Run moved to category 3, it was originally listed without specific data and assumed impaired because the Anacostia River is impaired for the pollutant. (The Anacostia River listing in category 4a was maintained.)
- Copper 2012 category 4a listing for Fort Chaplin tributary was removed due to the review of available habitat and toxics data indicating that 4a was not supported

DC waterbodies are still listed in category 4 or 5 for at least one pollutant, indicating that they are still impaired.

Each of the changes from the 2012 list is included in the Good Cause Justification Table

# Anacostia Watershed Waterbodies

## Toxics Listings

	Arsenic	Copper	Lead	Zinc	4,4' DDD	4,4' DDE	4,4' DDT	Chlordane	Dieldrin	Hepatchlor Epoxide	PAHs	PCBs
Anacostia	4a	4a	delisted	4a	4a	4a	4a	4a	4a	4a	4a	4a
Kingman Lake	4a	3	delisted	3	3	3	4a	4a	3	3	4a	4a
Nash Run	4a	3	delisted	3	3	3	3	4a	4a	4a	4a	4a
Popes Branch	3	3	delisted	3	3	4a	3	4a	3	4a	4a	4a
Watts Branch					3	3	3	4a	4a	3	3	4a
Hickey Run	3	3		3	3	4a	3	4a	3	3	4a	4a
Fort Dupont	4a	3	delisted	3								
Fort Chaplin	4a	delisted	delisted	delisted								
Fort Davis	4a	delisted	delisted	delisted								
Fort Stanton	4a	delisted	delisted	delisted	4a	4a						
Texas Avenue Tributary	4a	delisted	delisted	delisted	4a	4a	4a	4a	4a	4a	4a	4a
Tidal Basin					3	3	3	3	3	3	3	4a
Washington Ship Channel					3	3	3	3	3	3	3	
3	Previously unlisted, now in category 3 (insufficient information)											
3	Previously in category 4a, now in category 3 (insufficient information)											
4a	Remaining in category 4a (has a TMDL)											
delisted	Previously in Category 4a, now unlisted											



## For more information:

2014 DC Integrated Report on DDOE website- <http://ddoe.dc.gov/>

Search “2014 Integrated Report”

# TMDL revisions

- \* DDOE and EPA have been working collaboratively
- \* Develop sound daily load expressions for each toxic of concern
- \* Utilize existing data where possible
- \* Consider the MS4 Consolidated Implementation Plan

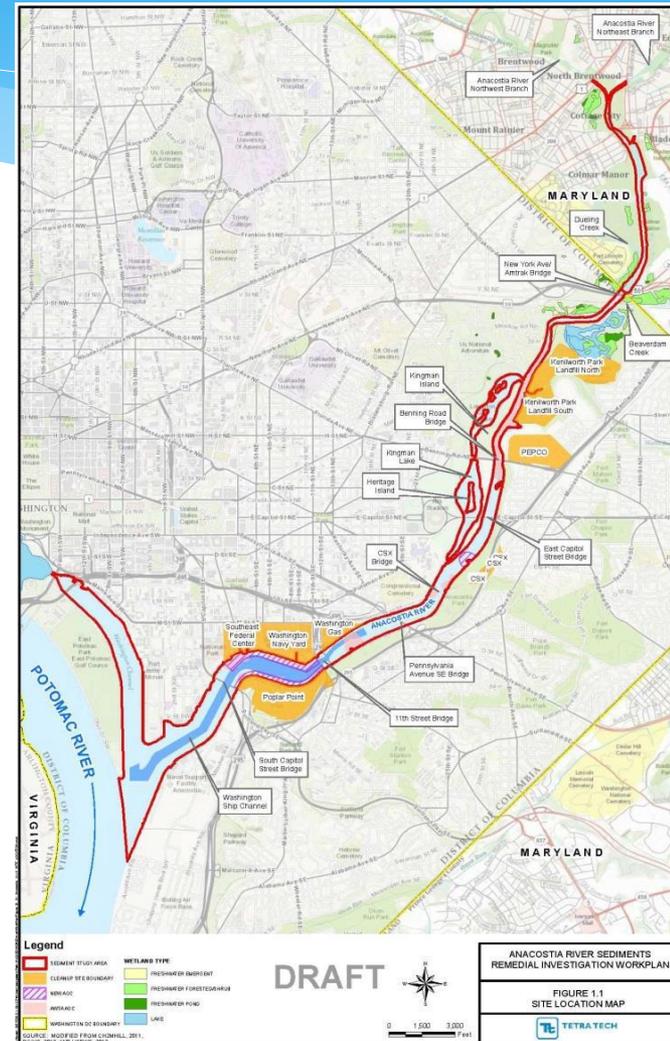


# Considerations for Anacostia Revisions

- \* Complex system
  - \* Tidally influenced
  - \* Legacy of contamination
  - \* A number of possible sources of contamination
- \* Anacostia River Sediment Study is a valuable source of data for our TMDL development

# Anacostia River Sediment Study

- \* Collecting sediment, pore water, surface water, and fish tissue samples in the mainstem of the Anacostia
- \* Chemical analyses include all of the toxic pollutants of concern
- \* Data validation scheduled for September 2015



# Daily Loads: Anacostia Watershed

- \* DDOE and EPA agree that toxic TMDLs in Anacostia River should be revised considering data from Sediment Project
- \* Technical support is being provided by Tetra Tech
- \* Develop a data gap monitoring plan for mainstem and tributaries
  - \* Better understand sources
  - \* Conduct monitoring in 2016
- \* Proceed with TMDL development

# Request for Extension: Anacostia

- \* This spring, EPA plans to request DOJ ask the court to stay vacatur for three additional years for the Anacostia River TMDLs
- \* Provides time for additional monitoring and TMDL development before vacatur of existing TMDLs

# Daily Loads: Rock Creek Watershed, Oxon Run, and Dalecarlia

- \* DDOE and EPA agree there is sufficient information to calculate daily load expressions for toxic pollutants
  - \* Simple systems
  - \* Few sources
- \* ICPRB providing technical support
- \* Timeline for public comment: 2016
- \* Complete TMDLs prior to January 1, 2017

# Questions?

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