DRAFT

Methodology for the Development of the 2018 Section 303(d) List and the 2018 Section 303(d) List of Impaired District of Columbia Waters

February 2018

Department of Energy and Environment
Natural Resources Administration
Water Quality Division

Persons wishing to submit comments may do so by mail to the address below by March 19, 2018. Such written comments are to be clearly marked "2018 Section 303(d) List". The Water Quality Division will consider the comments received to finalize the list.

Send comments to:

DOEE
Water Quality Division
5th Floor, ATTN: 2018 Section 303(d) List
1200 First Street, NE
Washington, DC 20002

All comments must be received by March 19, 2018

303(d) Listing, Assessment Methodology and Data Summary Report

Background

Section 303(d) of the federal Clean Water Act and regulations developed by US EPA require states to prepare a list of waterbodies or waterbody segments that do not meet water quality standards even after all the pollution controls required by law are in place. Waterbodies may be divided into segments. Waterbodies or waterbody segments not meeting the appropriate water quality standards are considered to be impaired. The law requires that states place the impaired waterbody segments on a list referred to as the 303(d) list and develop total maximum daily loads (TMDLs) for the waterbodies on the list in Category 5. The Potomac and Anacostia Rivers, Rock Creek and Watts Branch are divided into segments for the assessment purposes of this list. The Potomac River has three segments; the Anacostia River, Rock Creek and Watts Branch have two segments each.

US EPA requires that information for the assessment, listing, and reporting requirements for Section 303(d) and 305(b) of the Clean Water Act be submitted in an Integrated Report. The current guidance requires the categorization of all state waters into five assessment categories. The categories can be found in the Category Placement Methodology section.

US EPA regulations require that the Integrated Report (305(b)/303(d) list) and methodology used to categorize the waters be submitted to US EPA by April 1. The public must also be given the opportunity to comment on the IR draft 303(d) list.

Basis for Consideration of Data

Various data sources were considered for use in the preparation of the draft 2018 303(d) list. As the 303(d) list is a tool of the regulatory TMDL process, the District wants to ensure that the 303(d) list produced and eventually approved is based on data that utilized unbiased, scientifically sound data collection and analytical methods. The Water Quality Monitoring Regulations (Title 21, Chapter 19 - District of Columbia Municipal Regulations) were developed to provide for accurate, consistent, and reproducible water quality monitoring data for decision making purposes. Data that did not satisfy the monitoring regulations mentioned above is not reviewed for the development of the 2018 303(d) list.

The draft 2018 list enumerates specific pollutants of concern in various waterbodies or waterbody segments. The draft 2018 303(d) list is based on the following data:

- 2016 303(d) list;
- DC Ambient Water Quality Monitoring data for 2013–2017;
- DC Municipal Separate Storm Sewer System 2013–2017 Monitoring Data;
- Stream Survey data collected between 2002–2003 and 2010–2017;
- District of Columbia Phytoplankton, Zooplankton and Benthic Macroinvertebrate Samples Report, 2005–2009;
- USGS Non-tidal monitoring stations at Hickey Run (USGS station 01651770), Watts Branch (USGS station 01651800), and Rock Creek (USGS station 01648010), 2013–2017; and

- DC Fish Tissue Contamination Report, 2014.

In September 2017, a request for data was sent to organizations that may have data for the waters of the District of Columbia. The data received from organization(s) did not include the required quality assurance project plan, and was therefore not used in the preparation of the draft 303(d) list.

Use Support Determination

Class A

Class A water quality criteria are pH, turbidity and pathogens. *E. coli* bacteria data were used to make use support decisions about pathogens.

Class B

Class B water quality criteria are aesthetics, pH and turbidity. A regional Trash TMDL for the Anacostia River exists and the WQS include narratives that the aesthetic qualities of Class B waters shall be maintained. The waterbody segments are not fully supported. A methodology of the use support determination needs to be developed.

Table 3.1 lists the threshold used to make designated use determinations for physical and chemical pollutants and *E. coli*. For physical and chemical pollutants, the 305(b) guidelines indicated that whenever more than 10% of the water quality samples collected exceed the criterion threshold, the WQS is not attained (U.S. EPA 2002).

Table 3.1
Threshold for Physical and Chemical Pollutants and Pathogens

Support of Designated Use	Threshold for Physical and Chemical Pollutants and Pathogens
Fully Supporting	For any pollutant, standard exceeded in ≤ 10% of measurements. Pollutants not found at levels of concern.
Not Supporting	For any one pollutant, standard exceeded in > 10% of measurements. Pollutants found at levels of concern.
Not Assessed	Not assessed
Insufficient Information	Data to determine if the designated use is fully supporting/not supporting is not available.

Physical and Chemical pollutants are defined here as dissolved oxygen (DO), pH, turbidity, and temperature. For physical and chemical pollutants, the 305(b) guidelines indicated that whenever more than 10% of the water quality samples collected exceed the criterion threshold, the WQS is not attained (U.S. EPA 2002).

Class C

Biological/habitat data collected during 2002–2009, habitat data collected during 2016-2017, and physical/chemical data is used to determine aquatic life (Class C) use support for the small District streams. Biological/ habitat data for small streams was evaluated using the EPA stressor identification guidance. If a stream's aquatic life use is not supported based on the biological

information found in the DC Tributary Assessment Report (draft internal document) it is listed under Category 5 of the list, if a TMDL has not been completed.

Table 3.2 indicates streams where rapid bioassessment data was collected. The reference streams are in Maryland. The Maryland Biological Stream Survey, 2014, was the data source.

Aquatic life use support is based on the relationship between observed stream biological conditions compared to the reference stream condition producing a percent of reference stream biological condition. This scale rates "impaired" at 0–79 %, and "non-impaired at 80–100 %" of reference condition. EPA 305(b) guidelines on criteria for aquatic life use support classification recommend designation of "not supporting" if impairment exists, and "fully supporting" if no impairment exists. Piedmont and Coastal Plain tributaries were assessed using reference condition data from Montgomery and Prince George's Counties, Maryland. Piedmont is characterized by relatively low, rolling hills with heights above sea level between 200 feet (50 m) and 800 feet to 1,000 feet (250 m to 300 m). Its geology is complex, with numerous rock formations of different materials and ages intermingled with one another. The Coastal Plain has both low elevation and low relief, but it is also a relatively flat landform and has an average elevation less than 900 meters above sea level and extends some 50 to 100 kilometers inland from the ocean.

Biological Integrity Class scores were determined using scoring criteria adapted from Montgomery County. These scoring ranges were also applied to the Coastal Plain values. Habitat assessments were compared directly to each ecoregion's corresponding reference condition habitat evaluation.

The following tributaries in Table 3.2 were assessed for the Aquatic Life Use category using data collected during 2002–2017:

Table 3.2
Coastal Plain and Piedmont Streams Assessed

Coastal Plain		**Piedmont**	
TDU01	Fort Dupont Tributary[1]	TFB02	Foundry Branch[1]
TFC01	Fort Chaplin Run[1]	TLU01	Luzon Branch[1]
TFD01	Fort Davis Tributary[1]	TMH01	Melvin Hazen Valley Branch[1]
THR01	Hickey Run[c]	TPO01	Portal Branch[1]
TOR01	Oxon Run[1]	TPY01	Piney Branch[1]
TWB01	Lower Watts Branch[c]	TSO01	Soapstone Creek[1]
TWB02	Upper Watts Branch[c]	TDA01	Dalecarlia Tributary[2]
TTX27	Texas Avenue Tributary[1]	TFE01	Fenwick Branch[2]
TFS01	Fort Stanton Tributary[2]	TNS01	Normanstone Creek[2]
TNA01	Nash Run[2]	TDO01	Dumbarton Oaks Tributary[2]
TPB01	Pope Branch[2]	TPI01	Pinehurst Branch[2]
TFS01	Fort Stanton[2]	TKV01	Klingle Valley Creek[2]
		TBR01	Broad Branch[2]
		RCRH01	Lower Rock Creek[c]
		RCRH05	Upper Rock Creek[c]
		TBK01	Battery Kemble Creek[1]
		TPIH01	Pinehurst Branch[2]

Coastal Plain	Piedmont	
	TBR01	Broad Branch[2]

1 - First round streams (monitored on the even number year)
2 - Second round streams (monitored on the odd number year)
c - Core streams (monitored every year)

The findings from the habitat assessment are included in the individual assessments (see Appendix 3.3).

Class D

Fish consumption use determinations (Class D) are informed by known fish consumption advisories in effect during the assessment period. Fish tissue contamination data used to issue advisories are collected at stations located on the Anacostia and Potomac Rivers. If no barrier for fish movement exists, it is assumed that fish move freely to the smaller streams and other waterbodies. In these cases, fish tissue contamination data may be considered applicable to the connected tributaries. In waters where fish tissue was collected directly from the Anacostia and Potomac mainstems, and the presence of a pollutant was found in actionable levels in the fish tissue, the pollutant will be listed as a cause of impairment for that waterbody. In tributaries that are hydrologically connected to the Anacostia and Potomac mainstems and have indirect evidence, such as fish tissue contamination data from the mainstem Anacostia or Potomac Rivers, that indicate that a tributary may be impaired by a toxic pollutant of concern, the pollutant/tributary combination is deemed to have insufficient data or information to determine if the pollutant is a cause of impairment in the tributary. Table 3.3 has the threshold for fish consumption use designation.

Table 3.3
Threshold for Fish Consumption Use Support Classification

Support of Designated Use	Threshold for Fish Consumption
Fully Supporting	No fish/shellfish advisories or bans are in effect.
Not Supporting	"No consumption" fish/shellfish advisory or ban in effect for general population, or a subpopulation that could be at potentially greater risk, for one or more fish species; commercial fishing/shellfishing ban in effect.
Not Assessed	“Not assessed” is used when fish consumption is not a designated use for the waterbody.
Insufficient Information	Data to determine if the designated use is fully supporting/not supporting is not available.

Class E

Class E use is determined by the presence or absence of unmarked submerged or partially submerged man-made objects that pose a hazard to users of these waters.

Appendix 3.4 includes the tables of percent exceedances and statistical summary reports for the waterbodies assessed for this reporting cycle.

The District has adopted water quality standards for dissolved oxygen, water clarity and chlorophyll a in accordance with the Chesapeake Bay Water Quality Criteria Guidance Document published in 2003 (US EPA, 2003) for the Potomac Tidal Fresh and Anacostia Tidal Fresh (Chesapeake Bay Program waterbody name). For the 2018 listing year, these segments are in Category 4a because the Chesapeake Bay TMDL was established in December 2010.

Ambient Monitoring Data and Stream Survey Data

WQD uses the WQS to evaluate its surface waters. The following are designated uses for the surface waters of the District of Columbia:

- Primary contact recreation (swimmable);
- Secondary contact recreation and aesthetic enjoyment (wadeable);
- Protection and propagation of fish, shellfish, and wildlife (aquatic life);
- Protection of human health related to consumption of fish and shellfish (fish consumption); and
- Navigation (absent of man-made objects that impede free movement)

For the draft 2018 303(d) list determination, physical, chemical, and bacterial data collected from January 2013 to June 2017 are being used to make the use support decisions for primary contact, secondary contact, and aquatic life support uses for the rivers. A waterbody or waterbody segment is included on the draft 303(d) list if its designated use was not supported (i.e., greater than 10% exceedances of the physical or chemical pollutant, or bacteria measurements taken within the data period of study, EPA 2002). It is listed on Category 5 of the list if it is a new instance of non-support of a parameter and a TMDL does not exist. If it is a new instance and a TMDL does exist, the pollutant is placed in Category 4a.

Biological/habitat data collected during 2002–2009 and habitat data collected during 2013–2017, in addition to physical/chemical data is used to determine aquatic life use support for the small District streams. Biological/ habitat data for small streams was evaluated using the EPA stressor identification guidance. If a stream's aquatic life use is not supported based on the biological information found in the stream survey data it is listed under Category 5 of the list, if a TMDL has not been completed.

Municipal Separate Storm Sewer Data

The MS4 data used is the result of wet and dry weather samples collected from the stations monitored during the MS4 monitoring cycle. Only parameters for which numeric criteria was listed in the WQS were evaluated. The strictest criteria listed was used for comparison with the data results.

Category Placement Methodology

The pollutant causing impairment in a waterbody or waterbody segment must be identified. Since each waterbody is associated with multiple uses, it is possible for a single waterbody to need more than one TMDL. The guidance allows for a waterbody segment to be listed in one or more categories. Keep in mind that the main goal of this list is to have TMDLs approved and implemented so that water quality standards can be attained. These are the category descriptions:

Category 1 - All designated uses are supported, no use is threatened.
Category 2 - Available data and/or information indicate that some (at least three), but not all, designated uses are supported.
Category 3 - There is insufficient available data and/or information to make a use support determination.
Category 4 - Available data and/or information indicate that at least one designated use is not supported or is threatened, but a TMDL is not needed.

- Category 4a - A State developed TMDL has been approved by EPA or a TMDL has been established by EPA for any segment-pollutant combination.
- Category 4b - Other required control measures are expected to result in the attainment of an applicable WQS in a reasonable period of time.
- Category 4c - The non-attainment of any applicable WQS for the segment is the result of pollution and is not caused by a pollutant.
  (Category 4 and its subcategories may include TMDLs that may or may not need to be revised for one reason or another, including court orders, consent decrees, availability of new information.)

Category 5 - Available data and/or information indicate that at least one designated use is not supported or is threatened, and a TMDL is needed.

Priority and Ranking

Revisions to TMDLs required by the consent decree will supersede all other TMDLs scheduled for development.

Waterbodies that are first placed on the draft list for toxics substances, such as metals, pesticides, carcinogens, or noncarcinogens, are ranked as high priority for TMDL development on the basis of their risk to human health. Based on previous experience with the TMDL development process—data gathering, model development, public participation—the District of Columbia does not foresee the development of TMDLs for waterbodies ranked as high priority before the next six years.

If a waterbody is first listed for *E. coli* due to primary contact use exceedances that waterbody is ranked as a Medium priority waterbody for TMDL development. Bacterial impairment also poses some human health risk, though the effects seen are usually not as severe as toxic substances' effects. The primary contact use exceedances (a current use) will take higher priority than the secondary contact recreation use exceedances as it is also a more efficient use of resource to address the existing uses before the designated uses (such as secondary contact recreation). Waterbodies listed for trash will be ranked as High priority. Waterbodies listed for pH are also ranked as Medium priority as it is an aquatic life use criterion. The medium priority waterbodies will be scheduled for TMDL preparation within nine years.

Waterbodies listed for any other pollutant not previously mentioned will also be ranked low priority. Low priority waterbodies will be scheduled for TMDL preparation within twelve years.

Georeferencing

The geographic location codes included in the draft 2018 303(d) list were taken from the

National Hydrography Dataset. The District has two codes: 02070010 for the Potomac watershed and 02070008 for the Middle Potomac-Catoctin watershed. Only one District waterbody, Dalecarlia Tributary, is located in the Middle Potomac-Catoctin watershed. All the remaining waterbodies are located in the Potomac watershed. The EPA ATTAINS database is being used to compile the data for the Integrated Report.

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Use Support Determination

Class A

Class A water quality criteria are pH, turbidity and pathogens. *E. coli* bacteria data were used to make use support decisions about pathogens.

Class B

Class B water quality criteria are aesthetics, pH and turbidity. A regional Trash TMDL for the Anacostia River exists and the WQS include narratives that the aesthetic qualities of Class B waters shall be maintained. The waterbody segments are not fully supported. A methodology of the use support determination needs to be developed.

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Class C

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Coastal Plain	Piedmont	
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1 - First round streams (monitored on the even number year)
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The findings from the habitat assessment are included in the individual assessments (see Appendix 3.3).

Class D

Fish consumption use determinations (Class D) are informed by known fish consumption advisories in effect during the assessment period. Fish tissue contamination data used to issue advisories are collected at stations located on the Anacostia and Potomac Rivers. If no barrier for fish movement exists, it is assumed that fish move freely to the smaller streams and other waterbodies. In these cases, fish tissue contamination data may be considered applicable to the connected tributaries. In waters where fish tissue was collected directly from the Anacostia and Potomac mainstems, and the presence of a pollutant was found in actionable levels in the fish tissue, the pollutant will be listed as a cause of impairment for that waterbody. In tributaries that are hydrologically connected to the Anacostia and Potomac mainstems and have indirect evidence, such as fish tissue contamination data from the mainstem Anacostia or Potomac Rivers, that indicate that a tributary may be impaired by a toxic pollutant of concern, the pollutant/tributary combination is deemed to have insufficient data or information to determine if the pollutant is a cause of impairment in the tributary. Table 3.3 has the threshold for fish consumption use designation.

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Insufficient Information	Data to determine if the designated use is fully supporting/not supporting is not available.

Class E

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Ambient Monitoring Data and Stream Survey Data

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Category Placement Methodology

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- Category 4a - A State developed TMDL has been approved by EPA or a TMDL has been established by EPA for any segment-pollutant combination.
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  (Category 4 and its subcategories may include TMDLs that may or may not need to be revised for one reason or another, including court orders, consent decrees, availability of new information.)

Category 5 - Available data and/or information indicate that at least one designated use is not supported or is threatened, and a TMDL is needed.

Priority and Ranking

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Waterbodies that are first placed on the draft list for toxics substances, such as metals, pesticides, carcinogens, or noncarcinogens, are ranked as high priority for TMDL development on the basis of their risk to human health. Based on previous experience with the TMDL development process—data gathering, model development, public participation—the District of Columbia does not foresee the development of TMDLs for waterbodies ranked as high priority before the next six years.

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Waterbodies listed for any other pollutant not previously mentioned will also be ranked low priority. Low priority waterbodies will be scheduled for TMDL preparation within twelve years.

Georeferencing

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National Hydrography Dataset. The District has two codes: 02070010 for the Potomac watershed and 02070008 for the Middle Potomac-Catoctin watershed. Only one District waterbody, Dalecarlia Tributary, is located in the Middle Potomac-Catoctin watershed. All the remaining waterbodies are located in the Potomac watershed. The EPA ATTAINS database is being used to compile the data for the Integrated Report.

DRAFT

Categorization of District of Columbia Waters

Category 1- All designated uses are supported, no use is threatened.

No DC waters fit this category.

Category 2- Available data and/or information indicate that some, but not all, designated uses are supported.

No DC waters fit this category.

Category 3- There is insufficient available data and/or information to make a use support determination.

Category 4- Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed.

See subcategories below:

Category 4A- TMDLs needed to result in a designated use attainment have been approved or established by EPA.

Category 4B- TMDL not required. Other pollution control requirements (such as permits, strategies) are expected to address waterbody/pollutant combinations and result in attainment of the water quality standards in a reasonable period of time.

Category 4C- Impaired or threatened waters for one or more designated uses. TMDL is not required as impairment is not caused by a pollutant.

Category 5- Available data and/or information indicate that a designated use is not being supported or is threatened, and a TMDL is needed.

Geographic Location:
02070010- Potomac watershed

02070008- Middle Potomac-Catoctin watershed

DISTRICT OF COLUMBIA
LIST OF IMPAIRED WATERBODIES
Category 3

Category 3- There is insufficient available data and/or information to make a use support determination.

303d Assessment Year[1]	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment
2014	02070010	DCTWB00R	Upper Watts Branch-segment 2	DDD DDE DDT Heptachlor Epoxide PAH 1,2,3
2014	02070010	DCTWB00R	Lower Watts Branch-segment 1	DDD DDE DDT Heptachlor Epoxide PAH 1,2,3
2014	02070010	DCAKL00L	Kingman Lake	DDD DDE Dieldrin Heptachlor Epoxide Copper Zinc
2014	02070010	DCTDU01R	Fort DuPont Creek	Copper Zinc
2014	02070010	DCTPB01R	Popes Branch	DDD DDT Dieldrin

303d Assessment Year[1]	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment
				Arsenic Copper Zinc
2014	02070010	DCPWC04E	Washington Ship Channel	Chlordane DDD DDE DDT Dieldrin Heptachlor Epoxide PAH 1,2,3
2014	02070010	DCTOR01R	Oxon Run	Chlordane DDT Heptachlor Epoxide PAH 1,2,3 Arsenic Copper Zinc
2014	02070008	DCTDA01R	Dalecarlia Tributary	Chlordane DDD DDE DDT PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTNA01R	Nash Run	DDD DDE DDT Copper

303d Assessment Year[1]	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment
				Zinc
2014	02070010	DCTHR01R	Hickey Run	DDD DDT Dieldrin Heptachlor Epoxide Arsenic Copper Zinc
2014	02070010	DCTDO01R	Dumbarton Oaks	DDD DDE DDT PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTFE01R	Fenwick Branch	Chlordane DDE DDD PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTKV01R	Klingle Valley Creek	Chlordane DDD DDE DDT PAH 1,2,3 Arsenic Copper

303d Assessment Year[1]	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment
				Zinc
2014	02070010	DCTLU01R	Luzon Branch	DDD DDE DDT PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTMH01R	Melvin Hazen Valley Branch	Chlordane DDD DDE DDT Heptachlor Epoxide PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTPI01R	Pinehurst Branch	Chlordane DDD DDE DDT PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTPY01R	Piney Branch	DDD DDE DDT PAH 1,2,3

303d Assessment Year[1]	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment
				Arsenic Copper Zinc
2014	02070010	DCTPO01R	Portal Branch	Chlordane DDD DDE DDT PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCTSO01R	Soapstone Creek	DDD DDE DDT PAH 1,2,3 Arsenic Copper Zinc
2014	02070010	DCPTB01L	Tidal Basin	Chlordane DDD DDE DDT Dieldrin Heptachlor Epoxide PAH 1,2,3
2014	02070010	DCTBK01R	Battery Kemble Creek	Arsenic Copper Zinc

1Note:These pollutants moved from Category 4a to Category 3. Current fish tissue studies conducted in the District were based on fish caught in the Anacostia and Potomac Rivers, not the tributaries.

The Tetratech study did not detect the pollutant, but a TMDL exists for the pollutant. More information is needed to determine if the pollutant is the cause of non-attainment.

Category 4A- TMDLs needed to result in a designated use attainment have been approved or established by EPA.

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
2008	02070010	DCPTF[1]	Potomac Tidal Fresh	DO, Chla	Dec 2010
2008	02070010	DCATF[1]	Anacostia Tidal Fresh	DO, Chla	Dec 2010
2006	02070010	DCANA00E	Lower Anacostia River- segment 1	Trash	Sep 2010
2006	02070010	DCANA00E	Upper Anacostia River- segment 2	Trash	Sep 2010
1998	02070010	DCTWB00R	Upper Watts Branch-segment 2	E. coli Chlordane Dieldrin Total PCBs Total Suspended Solids	Oct 2003 (Revised Jul 2014) Oct 2003 Jul 2007

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTWB00R	Lower Watts Branch-segment 1	E. coli Chlordane Dieldrin Total PCBs Total Suspended Solids	Oct 2003 (Revised Jul 2014) Oct 2003 Jul 2007
1998	02070010	DCAKL00L	Kingman Lake	BOD* E. coli Chlordane DDT Total PCBs PAH 1,2,3 Arsenic Oil and Grease Total Suspended Solids	Oct 2003 Oct 2003 (Revised Jul 2014) Oct 2003
2018	02070010	DCAKL00L	Kingman Lake	DO	Dec 2010
1998	02070010	DCTDU01R	Fort DuPont Creek	E. coli Arsenic	Oct 2003 (Revised Jul 2014) Oct 2003

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTFD01R	Fort Davis Tributary	BOD E. coli Arsenic	Oct 2003 Oct 2003 (Revised Jul 2014) Oct 2003
1998	02070010	DCTFS01R	Fort Stanton Tributary	E. coli PAH 1,2,3 Total PCBs Arsenic	Oct 2003 (Revised Jul 2014) Oct 2003
1998	02070010	DCTFC01R	Fort Chaplin Tributary	E. coli Arsenic	Oct 2003 (Revised Jul 2014) Oct 2003
1998	02070010	DCTPB01R	Popes Branch	E. coli DDE Chlordane Heptachlor Epoxide PAH 1,2,3 Total PCBs	Oct 2003 (Revised Jul 2014) Oct 2003
2018	02070010	DCTPB01R	Popes Branch	Total Suspended Solids	July 2012

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTTX27R	Texas Avenue Tributary	E. coli Chlordane DDD DDE DDT Dieldrin Heptachlor Epoxide PAH 1,2,3 Total PCBs Arsenic	Oct 2003 (Revised Jul 2014) Oct 2003
1998	02070010	DCRCR00R	Upper Rock Creek-segment 2	E. coli Copper Lead Mercury Zinc	Feb 2004 (Revised Jul 2014) Feb 2004
1998	02070010	DCRCR00R	Lower Rock Creek- segment 1	E. coli Copper Lead Mercury Zinc	Feb 2004 (Revised Jul 2014) Feb 2004
1998	02070010	DCTOR01R	Oxon Run	E. coli Dieldrin	Dec 2004 (Revised Jul 2014) Dec 2004

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCPWC04E	Washington Ship Channel	E. coli pH	Dec 2004 (Revised Jul 2014) Dec 2010
1998	02070010	DCTBK01R	Battery Kemble Creek	E. coli	Dec 2004 (Revised Dec 2014)
1998	02070008	DCTDA01R	Dalecarlia Tributary	E. coli Dieldrin Heptachlor Epoxide PCBs	Dec 2004 (Revised Dec 2014) May 2005
1998	02070010	DCTCO01L	Chesapeake and Ohio Canal	E. coli	Dec 2004 (Revised Jul 2014)
2014	02070010	DCTCO01L	Chesapeake and Ohio Canal	pH	Dec 2010

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTNA01R	Nash Run	E. coli Chlordane Dieldrin Heptachlor Epoxide PAH 1,2,3 Total PCBs Arsenic	Oct 2003 (Revised Jul 2014) Oct 2003
2018	02070010	DCTNA01R	Nash run	Total Suspended Solids	July 2012
1998	02070010	DCPMS00E	Upper Potomac River- segment 3	E. coli Total PCBs Nitrogen Phosphorus Total Suspended Solids	Dec 2004 (Revised Dec 2014) Oct 2007
2014	02070010	DCPMS00E	Upper Potomac River- segment 3	pH	Dec 2010
1998	02070010	DCPMS00E	Middle Potomac River- segment 2	E. coli Total PCBs	Dec 2004 (Revised Dec 2014) Oct 2007
2014	02070010	DCPMS00E	Middle Potomac River- segment 2	pH	Dec 2010

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
2018	0270010	DCPMS00E	Middle Potomac River- segment 2	Total Suspended Solids	Dec 2010
1998	02070010	DCPMS00E	Lower Potomac River- segment 1	E. coli Total PCBs	Dec 2004 (Revised Dec 2014) Oct 2007
2018	02070010	DCPMS00E	Lower Potomac River- segment 1	Total Suspended Solids	Dec 2010
1998	02070010	DCTFB01R	Foundry Branch	E. coli	Dec 2004 (Revised Dec 2014)
1998	02070010	DCTBR01R	Broad Branch	Chlordane Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCTDO01R	Dumbarton Oaks	Chlordane Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTFE01R	Fenwick Branch	DDT Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCTHR01R	Hickey Run	E. coli Chlordane DDE PAH 1,2,3 Total PCBs	Oct 2003 (Revised Jul 2014) Oct 2003
2018	02070010	DCHR01R	Hickey Run	Total Suspended Solids	July 2012
1998	02070010	DCTKV01R	Klingle Valley Creek	Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCTLU01R	Luzon Branch	Chlordane Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTMH01R	Melvin Hazen Valley Branch	Dieldrin Total PCBs	Feb 2004
1998	02070010	DCTNS01R	Normanstone Creek	Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCTPI01R	Pinehurst Branch	Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCTPO01R	Portal Branch	Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCTPY01R	Piney Branch	Chlordane Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCTSO01R	Soapstone Creek	Chlordane Dieldrin Heptachlor Epoxide Total PCBs	Feb 2004
1998	02070010	DCPTB01L	Tidal Basin	E. coli Total PCBs	Dec 2004 (Revised Jul 2014) Dec 2004
2002	02070010	DCPTB01L	Tidal Basin	pH	Dec 2010

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCANA00E	Lower Anacostia River- segment 1	BOD	June 2008
				E. coli	Oct 2003 (Revised Jul 2014)
				Chlordane	Oct 2003
				DDD	
				DDE	
				DDT	
				Dieldrin	
				Heptachlor Epoxide	
				PAH 1,2,3	
				Total PCBs	
				Arsenic	
				Copper	
				Zinc	
				Total Suspended Solids	July 2007
				Oil and Grease	Oct 2003
				Nitrogen	Oct 2007
				Phosphorus	

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
1998	02070010	DCANA00E	Upper Anacostia River- segment 2	BOD	June 2008
				E. coli	Oct 2003 (Revised Jul 2014)
				Chlordane	Oct 2003
				DDD	
				DDE	
				DDT	
				Dieldrin	
				Heptachlor Epoxide	
				PAH 1,2,3	
				Total PCBs	
				Arsenic	
				Copper	
				Zinc	
				Total Suspended Solids	July 2007
				Oil and Grease	Oct 2003
				Nitrogen	Oct 2007
				Phosphorus	
2014	02070010	DCTDU01R	Fort DuPont Creek	Total Suspended Solids	Jul 2007
2014	02070010	DCTFC01R	Fort Chaplin Tributary	Total Suspended Solids	Jul 2007

303d Listing Year	Geographic Location	WBID	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	TMDL Establishment Date
2014	02070010	DCTFD01R	Fort Davis Tributary	Total Suspended Solids	Jul 2007
2014	02070010	DCTFS01R	Fort Stanton Tributary	Total Suspended Solids	Jul 2007
2014	02070010	DCTTX27R	Texas Avenue Tributary	Total Suspended Solids	Jul 2007

*BOD means biochemical oxygen demand

Category 4B- TMDL not required. Other pollution control requirements (such as permits, strategies) are expected to address waterbody/pollutant combinations and result in attainment of the water quality standards in a reasonable period of time.

Category 4C- Impaired or threatened waters for one or more designated uses. TMDL is not required as impairment is not caused by a pollutant.

No DC waters fit this category

Category 5- Available data and/or information indicate that a designated use is not being supported or is threatened, and a TMDL is needed.

303d Listing Year	Geographic Location	WBID[1]	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	Priority Ranking for TMDL Development	Targeted for TMDL within 2 years	TMDL Establishment Date
2002	02070010	DCTHR01R	Hickey Run	Chlorine (total Residual)	Low	No	Dec 2022
2014	02070010	DCANA00E	Upper Anacostia River –Segment 2	DO	Medium	No	Dec 2022
2014	02070010	DCRCR00R	Lower Rock Creek- segment 1	Total Suspended Solids	Medium	No	Dec 2022
2014	02070010	DCTFC01R	Fort Chaplin Tributary	DO	Medium	No	Dec 2022
2014	02070010	DCTFD01R	Fort Davis Tributary	DO	Medium	No	Dec 2022
2014	02070010	DCTHR01R	Hickey Run	DO	Medium	No	Dec 2022
2014	02070010	DCTBR01R	Broad Branch	E. coli	High	No	Dec 2022
2014	02070010	DCTDO01R	Dumbarton Oaks	E. coli	High	No	Dec 2022
2014	02070010	DCTFE01R	Fenwick Branch	E. coli	High	No	Dec 2022

303d Listing Year	Geographic Location	WBID[1]	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	Priority Ranking for TMDL Development	Targeted for TMDL within 2 years	TMDL Establishment Date
2014	02070010	DCTKV01R	Klingle Valley Creek	E. coli	High	No	Dec 2022
2014	02070010	DCTLU01R	Luzon Branch	E. coli	High	No	Dec 2022
2014	02070010	DCTMH01R	Melvin Hazen Valley Branch	E. coli	High	No	Dec 2022
2018	02070010	DCTMH01R	Melvin Hazen Valley Branch	Total Suspended Solids	Medium	No	Dec 2026
2014	02070010	DCTNS01R	Normanstone Creek	E. coli	High	No	Dec 2022
2018	02070010	DCTNS01R	Normanstone Creek	pH	Medium	No	Dec 2026
2014	02070010	DCTPI01R	Pinehurst Branch	E. coli	High	No	Dec 2022
2018	02070010	DCTPI01R	Pinehurst Branch	pH	Medium	No	Dec 2026
2014	02070010	DCTPO01R	Portal Branch	E. coli	High	No	Dec 2022
2014	02070010	DCTPY01R	Piney Branch	E. coli	High	No	Dec 2022
2014	02070010	DCTSO01R	Soapstone Creek	E. coli	High	No	Dec 2022

303d Listing Year	Geographic Location	WBID[1]	WB Name	Pollutant(s) or Pollutant Categories Causing Impairment	Priority Ranking for TMDL Development	Targeted for TMDL within 2 years	TMDL Establishment Date
2018	02070010	DCTSO01R	Soapstone Creek	pH	Medium	No	Dec 2026
2018	02070008	DCTDA01R	Dalecarlia Tributary	Total Suspended Solids	Medium	No	Dec 2026
2018	02070010	DCTOR01R	Oxon Run	Total Suspended Solids	Meduim	No	Dec 2026
2018	02070010	DCTWB00R	Upper Watts Branch-segment 2	pH	Medium	No	Dec 2026