Fact Sheet on the U.S. Virgin Islands 2022 Impaired Waters List
July 2023

Section 303(d) of the Clean Water Act requires states, territories and authorized tribes to develop lists of impaired waters. Impaired waters are waters that are too polluted or otherwise degraded to meet the state water quality standards. Federal law requires that these jurisdictions establish priority rankings for waters on the lists and develop total maximum daily loads for impaired waters. A total maximum daily load, or TMDL, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The EPA has approved the U.S. Virgin Islands 2022 list of impaired waters requiring a TMDL. The U.S. Virgin Islands 2022 impaired waters list presents information on impaired waters, pollutants causing the impairment and pollutant sources.

How States Report on the Quality of their Waters

The Clean Water Act requires states (Section 502 of the Act defines "state" to include the U.S. Virgin Islands) to assess the quality of their waterbodies and to report their findings every two years to the EPA. States adopt specific water quality standards that serve as the foundation for water quality management. Water quality standards identify the designated uses for each body of water (such as swimming, drinking, shellfish harvesting, etc.) and set criteria to protect those uses. During the assessment process, states compare the collected data to the established water quality standards.

In addition to reporting on the overall quality of all waters, the Clean Water Act directs states to identify and list specific waterbodies where water quality is impaired by pollutants. A waterbody is considered impaired if it does not meet water quality standards. The requirement to prepare the impaired waters list is found in section 303(d) of the Clean Water Act, and the list is often called the 303(d) list.

Each impairment reflected on the 303(d) list requires a calculation of the maximum amount of the impairing pollutant that a waterbody can receive and still meet water quality standards. TMDLs include reductions for pollution sources impacting the waterbody that, when achieved, will result in the attainment of water quality standards in the waterbody.

In certain cases, impaired waterbodies may not appear on a state's 303(d) list. If a TMDL has already been developed for the waterbody, another required control measure is expected to result in the attainment of water quality standards within a reasonable amount of time, or the impairment is the result of pollution not caused by a pollutant (e.g., hydrologic or habitat alteration), then the waterbody may not be included.

Water quality monitoring data and other information must be considered by states in assessment and reporting efforts. Monitoring may be carried out by national, state, local and tribal authorities, universities, dischargers, volunteers and others. It can include measurements of physical and chemical parameters (temperature, dissolved oxygen, suspended sediment, nutrients, metals, oils, and/or pesticides, for example), examinations of stream flow, water color, condition of stream banks and lake shores, observations of communities of aquatic wildlife, and sampling of fish tissue or sediment. Land use data, predictive models and land surveys may also be used.

Summary of 2022 Findings

The U.S. Virgin Islands 2022 303(d) list includes 250 instances where a pollutant is causing a designated use impairment. The indicators/causes of impairments are:

- Nitrogen (90)
- turbidity (47),
- enterococcus (42),
- pH (32),
- dissolved oxygen (22),
- transparency/clarity (7),
- phosphorus (6),
- temperature (2), and
- chronic toxicity (1).

Pollutant sources include:

- other marina/boating on-vessel discharges,
- erosion and sedimentation,
- source unknown,
- other recreational pollution sources,
- highway/road/bridge runoff (non-construction related),
- urban runoff/storm sewers,
- changes in tidal circulation/flushing,
- discharges from municipal separate storm sewer systems (MS4),
- impacts from resort areas,
- residential districts,
- site clearance (land development or redevelopment),
- highways, roads, bridges, infrastructure (new construction),
- marina boat maintenance,
- marina/boating sanitary on-vessel discharges,
- on-site treatment systems (septic systems and similar decentralized systems),
- municipal point source discharges,
- nonpoint source,
- commercial harbor and port activities,
- dredging (e.g., for navigation channels),
- illegal dumps or other inappropriate waste disposal,
- marina fueling operations,
- other spill related impacts,
- erosion from derelict land (barren land),
- industrial point source discharge,
- sanitary sewer overflows (collection system failures),
- marina/boating pumpout releases,
- package plant or other permitted small flows discharges,
- internal nutrient recycling,
- municipal point source impacts from inadequate industrial/commercial pretreatment, and
- post-development erosion and sedimentation.

Note: a pollutant may come from more than one source.

The U.S. Virgin Islands added 99 new waterbody/pollutant combinations to the 2022 303(d) list. A new water quality criterion for nitrogen was approved by the EPA on August 20th, 2020. These 99 waterbody/pollutant combinations include waters impaired for nitrogen. The new waterbody/pollutant combinations are summarized below:

- 90 assessment unit impaired for nitrogen
- 1 assessment unit impaired for dissolved oxygen,
- 2 assessment units impaired for enterococcus,
- 1 assessment unit impaired for phosphorus,
- 2 assessment units impaired for transparency/clarity,
- 2 assessment units impaired for turbidity, and
- 1 assessment unit impaired for temperature.

The 2022 303(d) list also reflects waterbody/pollutant combinations that no longer require listing. Removal of a waterbody/pollutant combination from the 303(d) list, called delisting, may indicate that the waterbody is restored, a TMDL was developed, the waterbody is receiving management attention that is expected to result in the attainment of water quality standards, or other factors (including errors). The U.S. Virgin Islands delisted 8 waterbody/pollutant combinations for the 2022 cycle, including:

- 2 waterbody/pollutant combinations where water quality standards are now met, based on new water quality data, including:
    - 1 waterbody/pollutant combination for enterococcus, and
    - 1 waterbody/pollutant combination for temperature.
- 6 waterbody/pollutant combinations where the original basis for listing was incorrect.

How the Water Quality Sampling and Reporting Process Works

The waters in and around the U.S. Virgin Islands are divided into 177 assessment units. Under the U.S. Virgin Islands coastal water quality monitoring program, ambient water quality is monitored on a quarterly basis. Ambient monitoring currently includes sampling and analysis of water quality at 38 sites around St. Croix and 58 sites around St. Thomas and St. John. The inventory of physical, chemical and microbiological data used to develop the 2022 integrated report and make water quality assessments consists of a search of monitoring results from samples taken between October 1, 2019 and September 30, 2021, downloaded from the water quality portal located at https://www.waterqualitydata.us/portal/ on November 22, 2021. The portal includes data from the ambient water quality monitoring programs. To ensure that the U.S. Virgin Islands considers all readily available data, on April 1, 2022, the Department of Planning and Natural Resources solicited water quality data for the 2022 303(d) list through a notice on its website as well as sending emails to interested parties. The DPNR did not receive any additional data.

The U.S. Virgin Islands uses the data collected through its monitoring program to determine the health of its waters by comparing the data to its water quality standards. Impaired waters are those waters that do not meet water quality standards even after limits based on treatment technology are applied, such as technology requirements at publicly-owned wastewater treatment facilities. For the waters listed as impaired, the U.S. Virgin Islands must develop loading limits to restore the waterbody. The list must include a priority ranking for each segment and the U.S. Virgin Islands must document its decisions on which waterbodies to include on the list, as well as waterbodies not to include on the list. The

documentation includes a description of the methodology used to develop the list. The DPNR posted a notice regarding the draft 303d list and assessment methodology on its website on April 1, 2022. The U.S. Virgin Islands allowed a 30-day period for the public to comment on the draft list and assessment methodology.

How to Get Involved

Recognizing that stakeholders throughout the U.S. Virgin Islands collect valuable water quality data, the DPNR has established a process that allows groups and individuals to submit information for use in the territory's assessment work. To submit data for consideration during future 303(d) assessment cycles, submissions (data, photographs, etc.) must be sent to the DPNR and include a quality assurance project plan. Parties submitting information should send materials to:

Department of Planning and Natural Resources
Charles W. Turnbull Regional Library
4607 TuTu Park Mall
St. Thomas, VI 00802

Alternatively, information can be sent via email to: Mary.Stiehler@dpnr.vi.gov. If you have questions or would like to speak directly with a DPNR representative, call (340) 514-1961.

The DPNR also provides the opportunity for formal public comment on its draft 303(d) list. The public comment period for the draft 303(d) list is typically announced in even-numbered years on the DPNR website. Comments are accepted during a 30-day period.

The EPA Contact for the U.S. Virgin Islands 303(d) List

If you have questions or concerns, contact Adam Fisher by phone at (212) 637-3817 or by email at fisher.adam@epa.gov.