DATA SUBMISSION FORM

(For Consideration in the Year 2016 303(d) Listing Process)
PA Department of Environmental Protection
Bureau of Point and Non-Point Source Management

PART 1. Identification of Waterbody

Waterbody Name: _____
Tributary to: _____ County _____
Are you submitting copies of the appropriate U.S.G.S 7.5' topographic quadrangles with segment(s) clearly highlighted? Yes_____ No _____ If no, please provide the following information:
Segment Limits (Lat./Long.): Upstream: _____ Downstream: _____
(for impounded waters, please provide the lat./long. of the impoundment's mid-point _____

PART 2. Investigator(s) Information

Name of group/individual, which collected the data/information:
_____
Contact Person for Questions regarding the data: _____ Phone #: _____

PART 3. Data Submission Content

What type(s) of data/information is/are being submitted? (Check all that apply)
Water Chemistry: _____ Bacteriological: _____ Macroinvertebrate: _____ Fish: _____

PART 4. Quality Assurance/Quality Control Information

Was the data or information being submitted for consideration collected under a program with either a written study design completed in accordance with DEP's "Designing Your Monitoring Program- A Technical Handbook for Community-Based Monitoring in Pennsylvania", a written quality assurance project plan completed in accordance with EPA's "The Volunteer Monitors Guide to Quality Assurance Project Plans" or a standard QA/QC protocol? Yes _____ No _____ If yes, please submit a copy of the study design, QAPP or QA/QC protocol.
Was the data collected under a program that adhered to a quality control plan that included external quality control checks such as split samples analyzed by an outside lab? Yes _____ No _____ If yes, please submit a copy of the outside lab analysis for review.

Is the submitted data or information incorporated into a finalized report, document, or journal article?
Yes _____ No _____ If yes, please include a copy with this submission form.

If the data being submitted is biological data, who is/are the source(s) of the taxonomic expertise? _____
_____

Did this person(s) perform all of the taxonomic work? Yes: ____ No: ____ Supervise? Yes: ____ No: ____

What are their credentials? _____
_____
_____

PART 5. Comments

Please provide any additional comments that might assist in DEP's evaluation of your data and information:

PART 6. Comments about the stream segment

Please provide detailed comments about the segment that might assist in DEP's evaluation of your data and information. Be certain to include a discussion of possible impairment sources (i.e. agriculture, municipal sewer outfall, etc.) and causes (sediment, habitat alterations, nutrients, etc.):

Please submit this form and all supporting documentation to:

Bureau of Point and Non-Point Source Management
Division of Water Quality Standards
Molly Pulket
P. O. Box 8774
Harrisburg, PA 17105-8774

Anyone with questions regarding the completion of this form, or the 303(d) listing process in general, may contact:

Gary Walters, Environmental Group Manager
Division of Water Quality Standards
(717) 787-9637
RA-WQAssessments@pa.gov

WATER QUALITY ASSESSMENT
305(b) Report/ 303(d) List
EXISTING AND READILY AVAILABLE DATA
MINIMAL DATA REQUIREMENTS

This is a summary of the process that the Department uses in its evaluation of outside data and information submitted for consideration in the development of the Water Quality Assessment 305(b) Report and 303(d) list of impaired waters. The Department will consider all data submissions from outside agencies in its decision-making process. Data that meets the minimal data requirements provided in this document may be used in the listing process and will be incorporated into the Department's 305(b) database. Data not meeting the requirements may be helpful for other purposes such as public education or the targeting of waters for further study. The 303(d) list of impaired waters is a subset of the 305(b) Report on the state of the waters.

Section 305(b) of the Clean Water Act requires states, territories, tribes and interstate commission to assess the health of their waters and the extent to which water quality standards and the basic goals of the Clean Water Act are being met. The goals of the Clean Water Act are to achieve and maintain water quality that provides for healthy communities of fish and shellfish and that allows for recreation in and on the water. States collect data and information that allow them to characterize whether water quality meets these and other uses for their waters, which are expressed in water quality standards that each state sets.

Water quality standards for all Pennsylvania surface waters can be found in Chapter 93 - Water Quality Standards and Chapter 16 - Water Quality Toxics Management Strategy (PA Code - Title 25. Environmental Protection).

In order for the Department to use data in the 305(b)/303(d) process, it must be of a documented quality. The Department will screen all outside sources of data for the following minimal requirements:

1. Written documentation of the protocols used in sampling and analysis describing quality assurance and quality control measures in the form of a Monitoring Study Design or Quality Assurance Project Plan.
2. Location and extent of the waterbody,

The Department recognizes that there are groups and organizations that do not currently have established sampling and analysis protocols, and a Monitoring Study Design or Quality Assurance Project Plan. Groups or individuals that would like to begin monitoring with the goal of having their data utilized by the Department in the 305(b)/ 303(d) process are encouraged to reference the published handbook for volunteer monitors: "**Designing Your Monitoring Program – A Technical Handbook for Community-Based Monitoring in Pennsylvania**." A copy of this document can be obtained by contacting:

Bureau of Conservation and Restoration
P.O. Box 8555
Harrisburg, PA 17105-8555
Telephone (717) 772-5807

Documentation of a Water Quality Standard Violation:

For any given waterbody in the Commonwealth, the applicable water quality standard (as found in Chapter 93 - Water Quality Standards and Chapter 16 - Water Quality Toxics Management Strategy <PA Code - Title 25. Environmental Protection>) is comprised of the designated uses and numeric and/or narrative criteria established to protect those uses. Documented evidence of a use impairment or criterion violation constitutes a violation of the applicable water quality standard. Because of the significance attached to 303(d)-listed waters, it is important that any determination of a water quality standard violation be based on scientifically sound methods and data. Assessments based on the comparison of numeric criteria with long-term water quality data typically meet this principle. Chemical assessments based on single, one-time grab samples generally do not. Single, one-time biological surveys conducted to assess support of designated aquatic life uses are generally acceptable because the biology is a long-term indicator of water quality. Sufficient evidence must be presented for both chemical and biological data to indicate that the assessment reflects the conditions throughout the entire waterbody segment and not simply a single site.

In reviewing data submitted by outside sources, the Department will use the following guidelines to determine if criteria are being violated and/or uses are being impaired.

Chemical Data

Data age	Data must be less than 5 years old, unless it can be demonstrated that data is representative of current conditions.
Chemical Parameters	Only those chemical parameters for which a criterion has been established can be considered. Applicable water quality criteria vary depending on the waterbody being considered. Criteria for all waterbodies in the Commonwealth can be found in Chapters 93 - Water Quality Standards and 16 - Water Quality Toxics Management Strategy of the Department's Rules and Regulations (PA Code - Title 25. Environmental Protection)
Minimum number of sampling sites	A minimum of two sites must be sampled for each stream segment. If landuse changes or point sources enter the stream between the upstream and downstream boundary points, more sites may be required. See the discussion "Location of Waterbody" for more details.
Sampling duration and frequency	To avoid the problems associated with serial correlation of time series data, sample collections must be at least two weeks apart and collected over a period of one to two years.
Minimum number of samples required for data to be considered representative of actual conditions	A minimum of 24 samples for each site is required. Single one-time grab samples will not be considered.
Required analysis to determine if samples exceed water quality criteria	To be performed by DEP staff using procedures outlined in the current Assessment and Listing Methodology.

Bacteriological Data

Data age	Data must be less than 5 years old, unless it can be demonstrated that data is representative of current conditions.
Minimum number of sampling sites	A minimum of two sites must be sampled for each stream segment. If landuse changes or point sources enter the stream between the upstream and downstream boundary points, more sites may be required. See the discussion "Location of Waterbody" for more details.
Sampling duration and frequency	No more than one sample per day. A minimum of 5 samples collected on different days spanning a minimum of 14 days and a maximum of 30 days constitutes one monthly sampling group.
Minimum number of samples required for data to be considered representative of actual conditions.	Two monthly sampling groups collected during the recreation season (May 1-September 30).
Required analysis to determine if samples exceed water quality criteria	To be performed by DEP staff using procedures outlined in the current Assessment and Listing Methodology.

Macroinvertebrate/Fish Data

Data age	Data must be less than 5 years old, unless it can be demonstrated that data is representative of current conditions.
Minimum number of sampling sites	A minimum of two sites must be sampled for each stream segment. If landuse changes or point sources enter the stream between the upstream and downstream boundary points, more sites may be required. See the discussion "Location of Waterbody" for more details.
Sampling duration	Single one-time grab samples are acceptable.
Acceptable data	Macroinvertebrates must be identified to the lowest practical taxonomic level (generally to genus, except for snails, worms, clams, and midges. Fishes must be identified to species.
Quality assurance for macroinvertebrate identification.	Persons with adequate knowledge and training in aquatic biology must identify the macroinvertebrates.
Required analysis to determine if samples exceed water quality criteria	To be performed by DEP staff using procedures outlined in the current Assessment and Listing Methodology.

Location of Waterbody:

It is imperative that all data and information submitted to DEP for consideration in the 305(b)/ 303(d) process include sufficient information regarding the location and extent of water quality limited segments. The Department requires that information submitted include copies of the appropriate U.S.G.S 7.5' topographic quadrangles with impaired segments clearly highlighted. For assessments that document impairments to entire basins, identifying the location of the mouth of the major stream is sufficient. In this latter case, all segments upstream of the mouth will be assigned the same impaired or attained status.

The Department defines a stream segment as the portion of a stream between an upstream tributary and the next downstream tributary. Assessments may consist of one or multiple segments. For headwater sections, the first segment extends from the source to the first tributary. The Department uses USGS 7.5 minute quadrangle maps (1:24,000 scale) to identify tributaries and the resulting stream segments. The rationale for segmenting streams is that tributaries can deliver pollution loads and/or dilution water in quantities sufficient to affect the water quality of the receiving stream. Some

tributaries have a flow so small in relation to the mainstem that they are not a factor in the overall quality of the mainstem. There is no need to place sampling sites around these tributaries.

After identifying a stream segment for study, sampling locations should be situated so they reflect the quality of all waters upstream to the next sampling point. A minimum of two sites is required to assess the quality of a stream segment. One location is just above the upstream tributary to measure the water quality entering the stream segment (background water quality) and another location just above the downstream tributary to measure the water quality as it flows out of the segment.

Outside sources of data and information that fail to adequately delineate a stream segment, cannot be used in the 305(b)/303(d) process. It is imperative that submitted information clearly identifies the extent of the waterbody segment(s) to which the data applies.

Quality Assurance/Quality Control:

All reports and data submitted to the Department must be accompanied by either a written study design completed in accordance with DEP's "Designing Your Monitoring Program – A Technical Handbook for Community-Based Monitoring in Pennsylvania", a written quality assurance project plan completed in accordance with EPA's "The Volunteer Monitors Guide to Quality Assurance Project Plans" or a standard QA/QC protocol. A quality assurance plan should be adhered to that includes external checks such as split sample analysis by DEP certified labs.

Chemical and Bacteriological Data

Guidance for QA/QC and monitoring of chemical and bacteriological data collection is available in PA DEP's "Designing Your Monitoring Program – A Technical Handbook For Community-Based Monitoring in Pennsylvania" or EPA's The Volunteer Monitor's Guide to Quality Assurance Project Plans, EPA 841-B-96-003. The DEP guidance can be obtained by contacting: Bureau of Conservation and Restoration
P.O. Box 8555
Harrisburg, PA 17105-8555
Telephone (717) 772-5807

The EPA guidance can be found at http://www.epa.gov/OWOW/monitoring/volunteer/qappcovr.htm.

Biological Data

The Department recommends use of the Rapid Bioassessment Protocol described in "Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers; Periphyton, Benthic Macroinvertebrates, and Fish", EPA 841-B-99-002, July 1999.

Other analytical methods will be considered if submitted to and agreed upon by the Department.

INFORMATION SHEET

303(d) LIST
&
EXISTING and READILY AVAILABLE WATER QUALITY DATA and INFORMATION

What is the 303(d) List?

Section 303(d) of the federal Clean Water Act (CWA) requires Pennsylvania to identify all waters within the Commonwealth for which effluent limitations required by the CWA are not stringent enough to implement any water quality standard applicable to such waters. The 303(d) List includes those water quality limited segments that still require the development of total maximum daily loads (TMDLs) to assure future compliance with water quality standards. Water quality limited segments are defined as waterbodies that do not meet water quality standards even after the application of technology-based treatment requirements to point and nonpoint sources of pollution. Water quality standards are defined as the combination of designated water uses to be protected and the water quality criteria necessary to protect those uses. Water quality standards for all Pennsylvania surface waters can be found in Chapter 93 - Water Quality Standards and Chapter 16 - Water Quality Toxics Management Strategy (PA Code - Title 25. Environmental Protection). The Pennsylvania Department of Environmental Protection (DEP) must submit the 303(d) List to the Environmental Protection Agency (EPA) by April 1st of 2016. The most current version of the 303(d) list can be accessed electronically at http://www.depweb.state.pa.us/portal/server.pt/community/water_quality_standards/10556/integrated_water_quality_report_-_2014/1702856.

How is the determination made to place a waterbody on the 303(d) List?

In determining which waters to place on the 303(d) List, DEP is required by federal regulation (40 CFR 130.7(b)(5)) to assemble and evaluate all existing and readily available water quality related data and information. At a minimum, all existing and readily available water quality related data and information includes the following categories of waters:

1. Waters identified by the State in its most recent section 305(b) report as partially supporting or not supporting designated uses, or as threatened;

2. Waters for which dilution calculations or predictive models indicate non-attainment of applicable water quality standards;

3. Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions.

4. Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA.

The determination of how much data and information is adequate to include a waterbody on the 303(d) List is a deliberative process involving best professional judgment by DEP staff. The EPA guidance identifies a number of screening categories that DEP should use to identify water quality limited waters. Those that may apply to existing and readily available water quality data and information submitted by outside sources include:

1. **Evidence of numeric criterion violations**. Example: Ambient monitoring data demonstrates chronic exceedance of the Chapter 93 temperature criteria.

2. **Beneficial use impaired.** Listing a waterbody due to use impairment requires information that shows the use is not being supported and that this failure is due to degraded water quality. Examples: A waterbody designated for water contact sports has been closed to swimming by local or state authorities due to human health concerns. A waterbody designated as a cold water fishery has exhibited a documented decline in biomass due to excessive sediment deposits that have inhibited or precluded spawning.

3. **Evidence of a narrative criterion violation.** Example: Assessment demonstrates that a discharge is releasing substances that produce color, odor, or turbidity in amounts harmful to a designated water use.

4. **Technical analysis.** Example: Predicative modeling results show that criteria will be violated at design flow or Rapid Bioassessment Protocol results indicate beneficial uses will not be maintained.

Is DEP required to use all data and information submitted by outside sources in determining if a waterbody should be included on the 303(d) List?

In order to be used in the 303(d) listing process, data and/or information submitted to DEP should include the following:

1. Name and location of waterbody.
2. Name of investigator(s) and/or phone number of a contact person.
3. Identification of the applicable water quality standard violation.
4. Data and documentation which substantiates the conclusion of impairment.
5. Delineation of the water quality limited segment on the appropriate USGS topographic quadrangles.
6. Identification of all sampling locations on the appropriate USGS topographic quadrangles.
7. Identification of the source(s) of documented impairment (e.g., industrial point source discharge, construction, habitat modification, nonpoint source, etc.).
8. Identification of the cause(s) of documented impairment (e.g., metals, siltation, flow alterations, etc.).

DEP is interested in evaluating all available information in the 303(d) listing process; however some types and sources of information will not be adequate. At a minimum, data submitted to DEP will be reviewed to determine the following:

1. Presence of a quality assurance/quality control plan.
2. Adherence to accepted methods in the operation of field instruments.
3. Use of standardized protocols for chemical/biological monitoring.
4. Some indication that all other testing methods comply with accepted practices.

DEP is required to review all data submitted. However, data deemed inadequate based on insufficient data quantity/quality will not be used in the compiling of the 303(d) List. An explanation will be provided in the 303(d) List documentation submitted to EPA for any data reviewed but not included on the list.

When can outside sources submit data and information to DEP for consideration in the 303(d) listing process?

The 303(d) listing process is an ongoing effort and outside sources are encouraged to submit data and information at any time. However, in order to allow for the federally mandated submission of the 303(d) List to EPA by April 1st in a year that the list is due for submission to EPA, the Department must impose a data

submission deadline. Information and data submitted to DEP by close of business on August 17th of the preceding calendar year (August 17, 2015) will be considered for inclusion in any given 303(d) List. Information and data received after the established deadline will be considered during the next 303(d) listing cycle.

Where should I submit data and information for consideration in the 303(d) listing process?

Anyone wishing to submit data and information for consideration in the 303(d) listing process may send it to the following address:

Division of Water Quality Standards
Bureau of Point and Non-Point Source Management
Molly Pulket
P.O. Box 8774
Harrisburg, PA 17105-8774

Who can I contact with questions regarding the 303(d) listing process?

Anyone with questions regarding the 303(d) listing process is encouraged to call the following individual at (717) 787-9637:

Gary Walters, Environmental Group Manager
Division of Water Quality Standards
RA-WQAssessments@pa.gov