**2015 Assessment Methodology**

[Assessment and Listing Methodology for Integrated Water Quality Monitoring and Assessment Reporting (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/2013_Assessment_Methods_narrative.pdf)

**Assessment Protocols**

**Watershed Assessment Protocol**

* [Instream Comprehensive Evaluations (ICE)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/ICE.pdf)

**Macroinvertebrate Stream Protocols**

* [Limestone Steams (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/An%20Index%20of%20Biological%20Integrity-Limestone%20Streams.pdf)
* [Multi-Habitat Pool/Glide Streams (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Multihabitat%20Protocol%20Final%20Draft.pdf)
* [Riffle/Run Freestone Streams (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/freestoneIBI.pdf)

**Field Sampling Protocols**

* [Continuous Instream Monitoring (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/CIM_PROTOCOL.pdf)
* [Periphyton (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Periphyton%20Standing%20Crop%20Protocol.pdf)
* [Streambed Sediment (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Streambed_Sediment_Protocol.pdf)
* [Surface Water Collection (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Surface%20Water%20Collection%20Protocol.pdf)
* [Semi-Quantitative Fish Sampling protocol (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Semi-Quantitative%20Fish%20Sampling%20protocol.pdf)
* Nutrient Impact Assessment\*
* Cause and Effect Surveys\*

**Lake Assessment Protocols**

* [Lake Assessment Protocol (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Lake%20Assessment%20Methods.pdf)\*
* [Aquatic Macrophyte Cover (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Aquatic%20Macrophyte%20Cover.pdf)\*
* [Lake Fisheries (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Lake%20Fisheries%20Sampling%20Protocol.pdf)
* [Evaluations of Phosphorus Discharges to Lakes, Ponds, and Impoundments (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Evaluation%20of%20P%20Discharges%20to%20Lakes,%20Ponds,%20and%20Impoundments.pdf)
* [Plankton Sampling (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Quantitative%20Plankton%20Sampling.pdf)\*
* [Chlorophyll A Sampling (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Chlorophyll%20A%20Sampling.pdf)\*

**Chemistry and Bacteria**

* [Chemistry - Bacteriological Evaluations (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Physicochemical_Bacteriological.pdf)
* Bacteriological Sampling Protocol
* [Fish Tissue Sampling (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/FishTissueSampling.pdf)

**Natural Sources**

* [Natural Pollutant Sources (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/NaturalPollutionSources.pdf)

**Outside Agency**

* [Outside Agency Data (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Outside%20Agency%20Data.pdf)

**Appendices**

* Appendix A - [Sources and Cause Definitions (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/AppendixA_SourceCause%20Definitions.pdf)
* Appendix B - [Taxa Tolerances (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/AppendixBTaxaTolerances.pdf)
* Appendix C - Biological Field Methods
  + Appendix C1 - [Habitat (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/AppendixC_Habitat%20Methods.pdf)
  + Appendix C2 - [Benthic Macroinvertebrates (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/AppendixC_Benthic%20Macros.pdf)
  + Appendix C3 - [Fish (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/AppendixC_Fish%20Methods.pdf)
  + Appendix C4 - [Taxonomic Reference (PDF)](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/AppendixC_Taxonomic%20references.pdf)

**Comment Response**

* [Comment Response Document](http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Methodology/2013%20Methodology/Comment%20Response%20Document%20for%202013%20AssessMeth.pdf)

\*New or revised methods for public comment.