

Six Goals Under the TMDL Vision

In 2011 the Environmental Protection Agency (EPA) and the states began working together to develop a long-term vision for assessment, restoration, and protection under the Clean Water Act (CWA) Section 303(d) Program. A draft document for this was released in 2012 and in December 2013, EPA released a final version. The [Vision and goals](#) developed by the states and EPA is available on the web.

As stated in the Vision document, “EPA and the States were guided by the preeminent importance of successful implementation of our CWA assessment, restoration, and protection activities, in the context of ensuring the use of good scientific and technical information and methods, having appropriate and relevant water quality standards, engaging individuals and organizations that have a role in reducing nonpoint as well as point sources of pollution, facilitating the use of listing and TMDL information by stakeholders, and assessing results to guide adaptive management strategies.”

As the vision document further states, “The Goal statements are presented in an order beginning with the cornerstone Goals of Prioritization and Assessment – with the Prioritization Goal as the foundation to guide planning and implementation of the other Goals, and the Assessment Goal to develop a full understanding of the condition of priority areas identified. The next two Goals of Protection and Alternatives pertain to actions that a State may consider to advance its water quality objectives, in addition to TMDL development. Finally, under the Integration and Engagement Goals, coordination of the CWA 303(d) and other CWA program objectives and involvement of stakeholders around mutually identified priorities are key themes to deal with the technical challenges of water quality restoration and protection, limited funding and other resources, and the specific objectives of individual States and their public. The Engagement Goal is a key means to implement the Vision and as a result, is expected to be initiated immediately.”

This document outlines EPA’s expectations for the states and how Tennessee is working to meet the goals set forth.

(Glossary of terms and programs is found at the end)

The six goals are:

1. **Prioritization.** *For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals.*

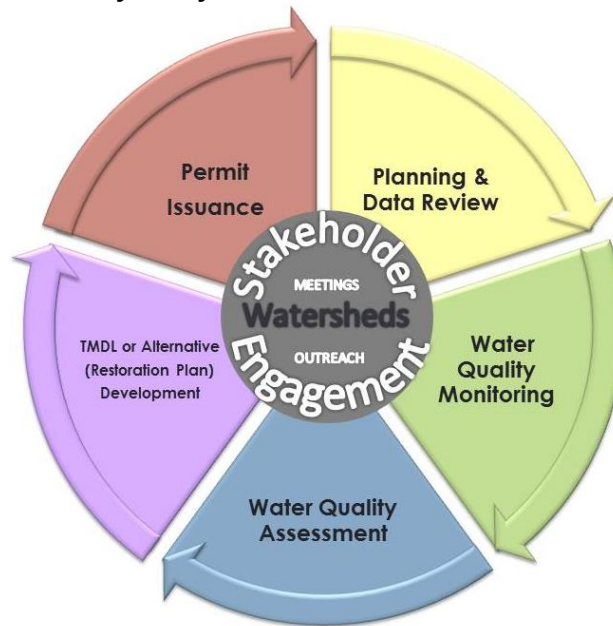
The intent of the Prioritization Goal is for States to express CWA 303(d) Program priorities in the context of the state's broader, overall water quality goals. Tennessee's prioritization under the 303(d) Vision is stated in Tennessee's document titled "[How Tennessee Implements the Priority Goal for TMDL Development Under the 303\(d\) Long-term Vision.](#)"

Tennessee has set as its priority HUC-12s with nutrient impaired waters and source water protection areas, and has committed to addressing fifteen of them with a TMDL or TMDL alternative by 2022. The fifteen are:

WATER BODY	WATERBODY ID	HUC-12	TMDL OR ALTERNATIVE
Lynwood Creek	TN05130204016_0100	051302040105	
Harpeth River	TN05130204016_1000	051302040105	TMDL
Harpeth River	TN05130204016_2000	051302040105	TMDL
Spring Creek	TN05130206002_0300	051302060701	
Red River	TN05130206002_4000	051302060702	
Roan Creek	TN06010103034_1000	060101030104	
Roan Creek	TN06010103034_2000	060101030104	
Gap Creek	TN06010103008_0800	060101030505	
Beaver Creek	TN06010207011_1000	060102070202	
Buffalo Creek	TN06010207016_0100	060102070402	
Flat Fork	TN06010208004_0200	060102080403	
Unnamed Trib to Shelton Creek	TN06020004001_0910	060200040304	
Wilson Creek	TN06040001046_1000	060400020701	
Blue Creek	TN06040003062_3000	060400030907	
Trace Creek	TN06040005050_1000	060400050403	

2. **Assessment.** *By 2020, States identify the extent of healthy and CWA Section 303(d) impaired waters in each State's priority watersheds or waters through site-specific assessment.*

The purpose of the Assessment Goal is to encourage a comprehensive understanding of the water quality status of at least each state's priority areas. Tennessee conducts watershed activities, including assessments, according to a [watershed schedule](#), where all activities take place within a 5-year cycle.



Activities in Cycle	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Planning & Data Review	1	2	3	4	5	1	2	3	4	5
Water Quality Monitoring	4	5	1	2	3	4	5	1	2	3
Water Quality Assessment	2	3	4	5	1	2	3	4	5	1
TMDL or Alternative (Restoration Plan) Development and Stakeholder Engagement	1	2	3	4	5	1	2	3	4	5
Permit Issuance	5	1	2	3	4	5	1	2	3	4

Tennessee has also completed the EPA's Healthy Watershed Assessment (<http://www.epa.gov/hwp>) and has identified healthy watersheds through that process.

3. **Protection.** *For the 2016 reporting cycle and beyond, in addition to the traditional TMDL development priorities and schedules for waters in need of restoration, States identify protection planning priorities and approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State's systematic prioritization.*

The intent of the Protection Goal is to encourage a more systematic consideration of management actions to prevent impairments in healthy waters (i.e., unimpaired waters) in order to maintain water quality or protect existing uses or high quality waters. Tennessee is part of a multi-agency team that worked with EPA to develop a Healthy Watershed Assessment for Tennessee. Tennessee is now working with The Nature Conservancy to apply for a Healthy Watersheds Consortium Grant that, if awarded, will fund projects that promote healthy watersheds. Prior to, and including 2016, Tennessee has awarded grants for protection projects such as low head dam removals, clean water initiatives, and educational programs. Project locations are shown below.



4. **Alternatives.** *By 2018, States use alternative approaches, in addition to TMDLs, that incorporate adaptive management and are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions that achieve the water quality goals of each state, including identifying and reducing nonpoint sources of pollution.*

The purposes of the Alternatives Goal are to encourage the use of the most effective tool(s) to address water quality protection and restoration efforts and to further explore and identify how principles of adaptive management can most effectively be applied to improve water quality. Tennessee is planning on pursuing alternative restoration approaches (i.e., integrated reporting Category 5-alt) in advance of TMDL development in watersheds where those actions are expected to be more immediately beneficial.

5. **Engagement.** *By 2014, EPA and the States actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives.*

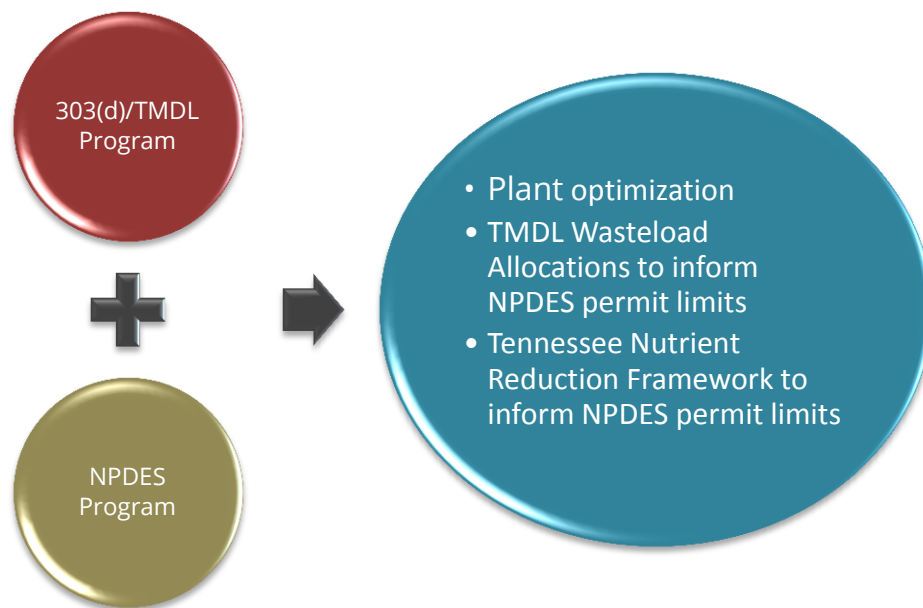
The purpose of the Engagement Goal is to ensure that the CWA 303(d) Program encourages working with stakeholders to educate and facilitate actions that work toward achieving water quality goals. Tennessee is using several tools to engage the public.

- Watershed Events (meetings). Tennessee Department of Environment and Conservation Division of Water Resources (TDEC/DWR) either hosts or co-hosts approximately seven watershed events per year, according to our previously mentioned watershed management cycle. Watershed events (meetings) are of two types: 1) agencies, nongovernment organizations, universities, and private organizations display their activities related to clean water and directly engage citizens, or 2) TDEC participates in public festivals that are sponsored by local organizations or governments. A listing of these [events](#) is posted on the web.
- Facebook Page. TDEC/DWR maintains a [Facebook page](#) to update the public about our watershed events and provides a place to create partnerships and showcase activities that support efforts for improving/protecting water quality.
- Data and Map Viewers. TDEC/DWR provides data to the public through public-facing data and map viewers. As technology improves, the number increases each year. A collection of watershed [data viewers](#) and [GIS layers](#) can be accessed from the web.
- Geoform. The public is encouraged to let us know about stream sites that are in need of restoration or to report on the progress of ongoing restoration projects. [Submissions](#) of restoration sites and the [location of all sites submitted](#) are available on the web.

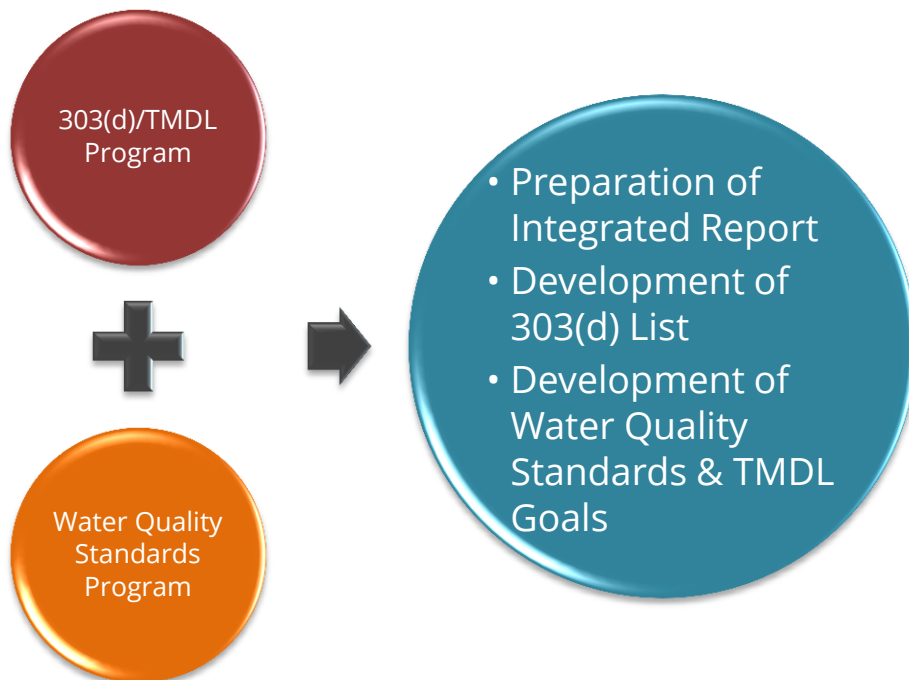
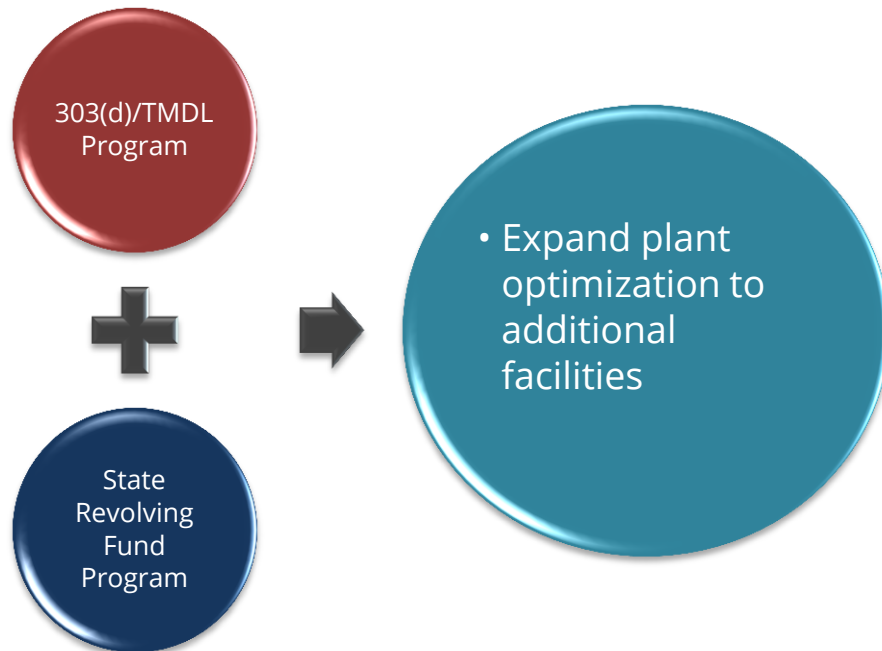
6. **Integration.** *By 2016, EPA and the States identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across CWA programs, other statutory programs (e.g., CERCLA, RCRA, SDWA, CAA), and the water quality efforts of other Federal departments and agencies (e.g., Agriculture, Interior, Commerce) to achieve the water quality goals of each state.*

The intent of the Integration Goal is to increase collaboration between the CWA Section 303(d) Program and other relevant programs that play a role in influencing water quality, in order to collectively and more effectively achieve the water quality goals of States, Tribes, and Territories. This goal aims to overcome barriers in coordination by aligning diverse program goals for mutual benefit. Tennessee is continuing to develop relationships with the following programs:

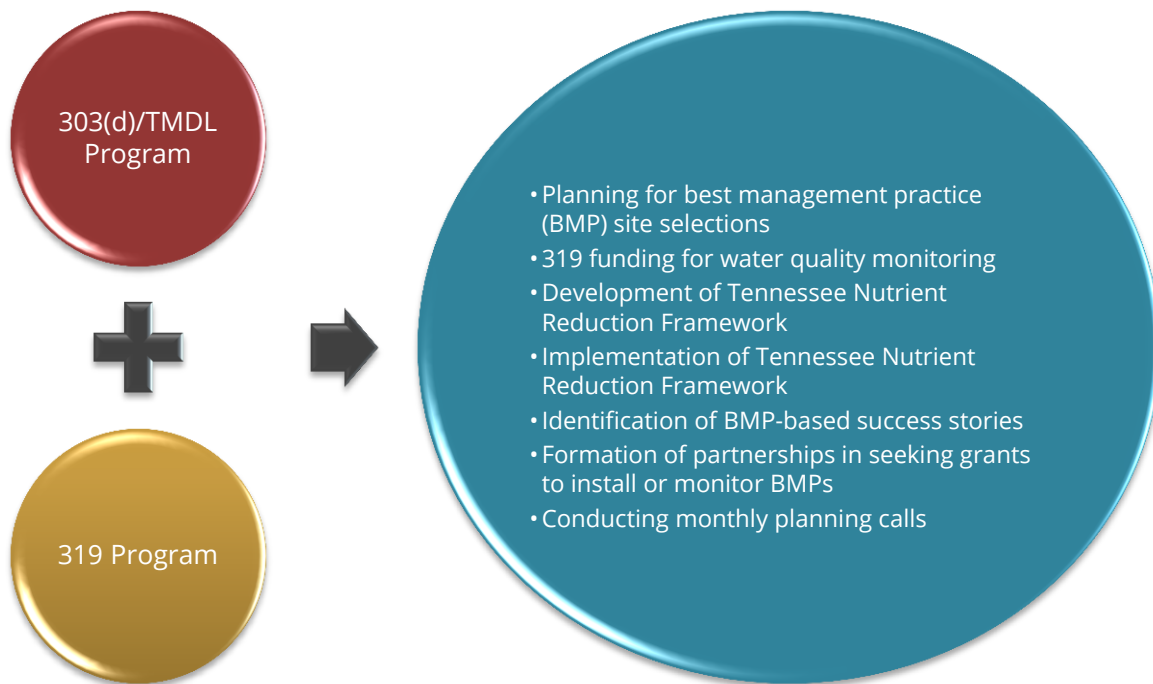
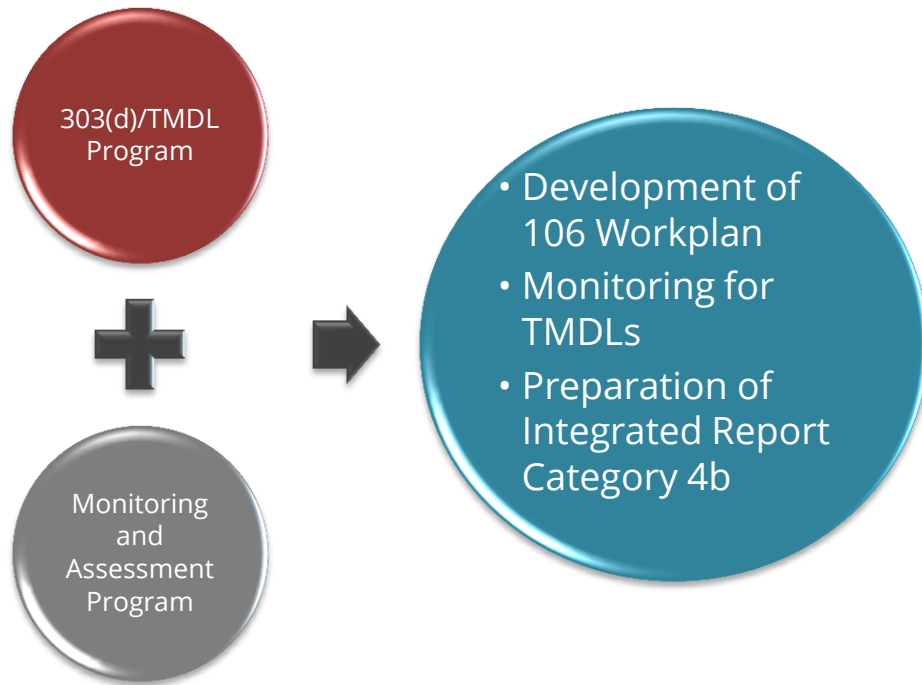
INTEGRATION WITH CLEAN WATER ACT PROGRAMS



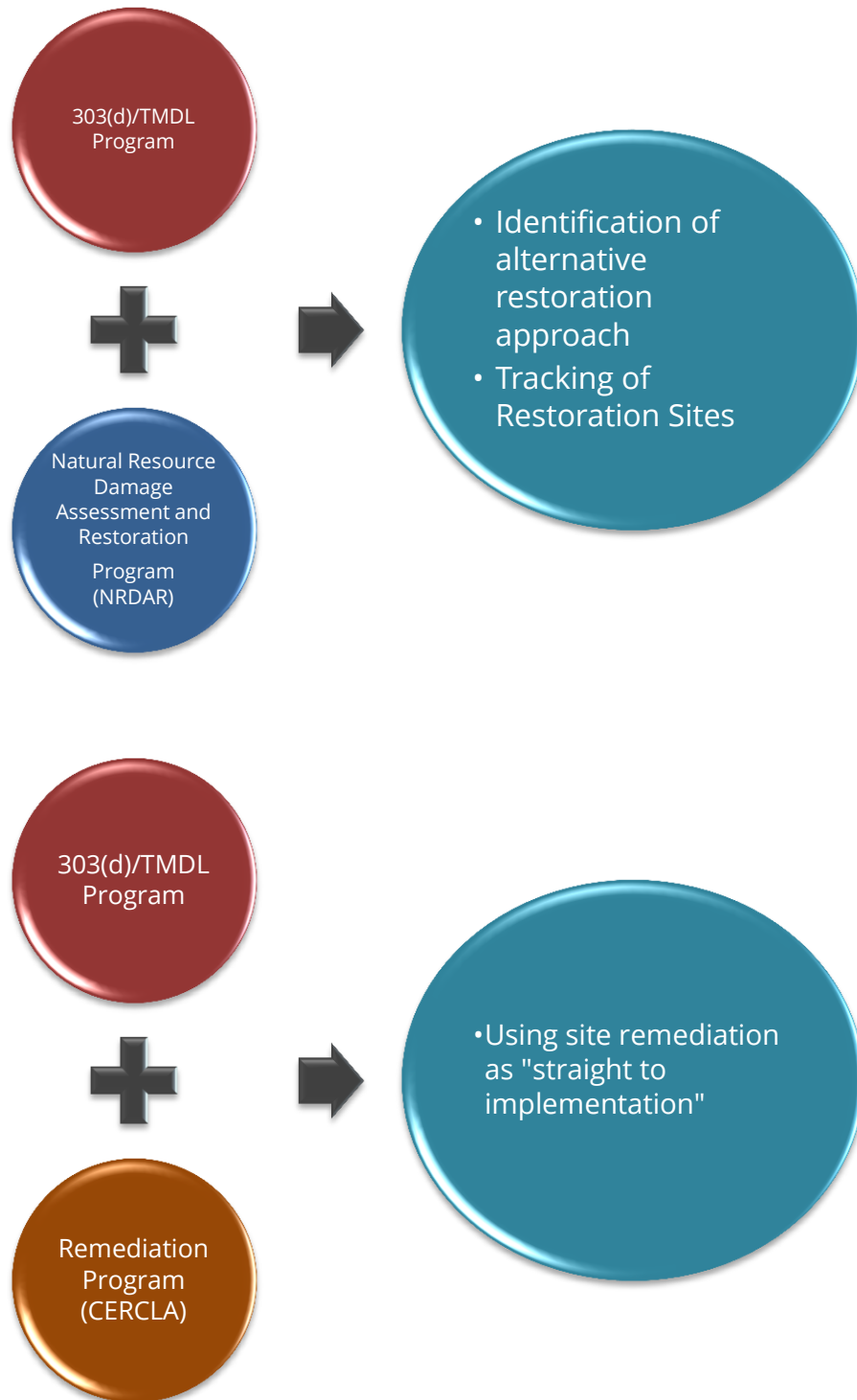
INTEGRATION WITH CLEAN WATER ACT PROGRAMS (continued)



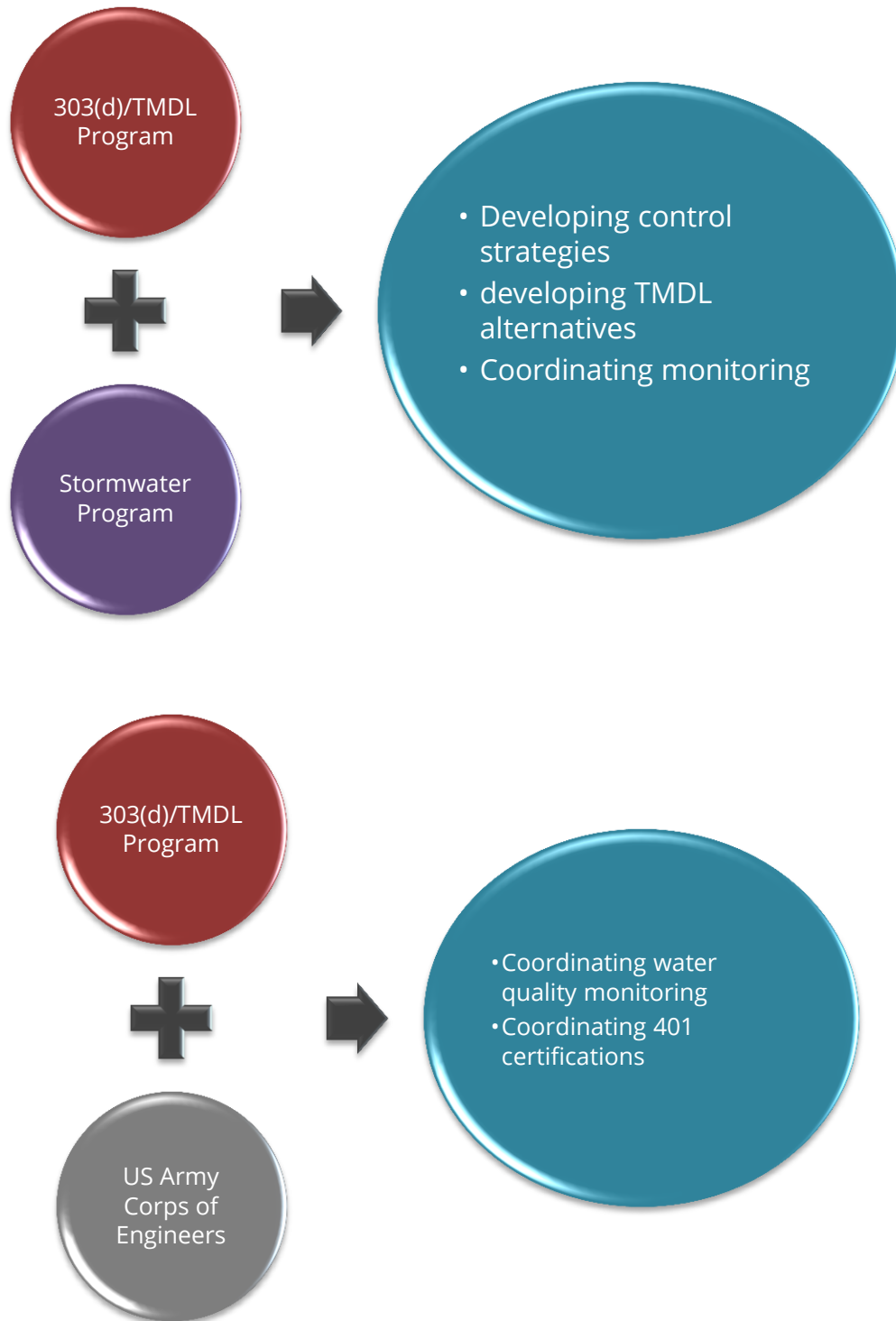
INTEGRATION WITH CLEAN WATER ACT PROGRAMS (continued)



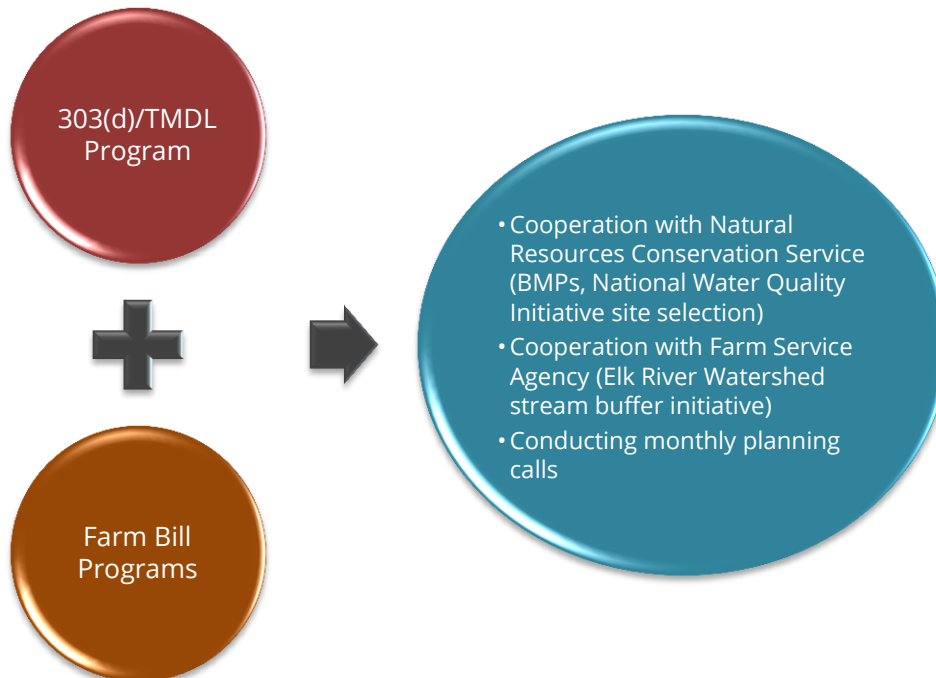
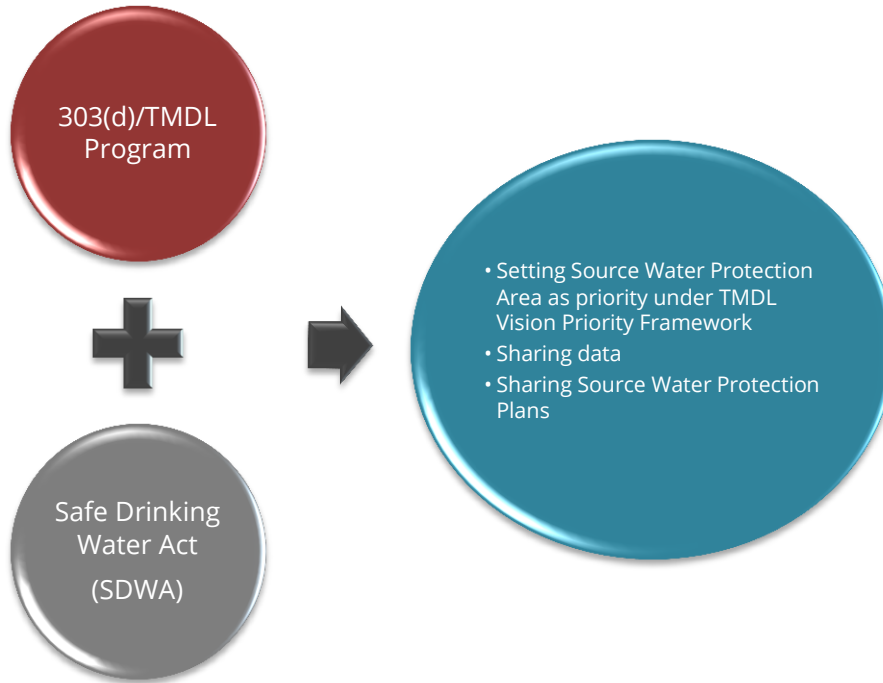
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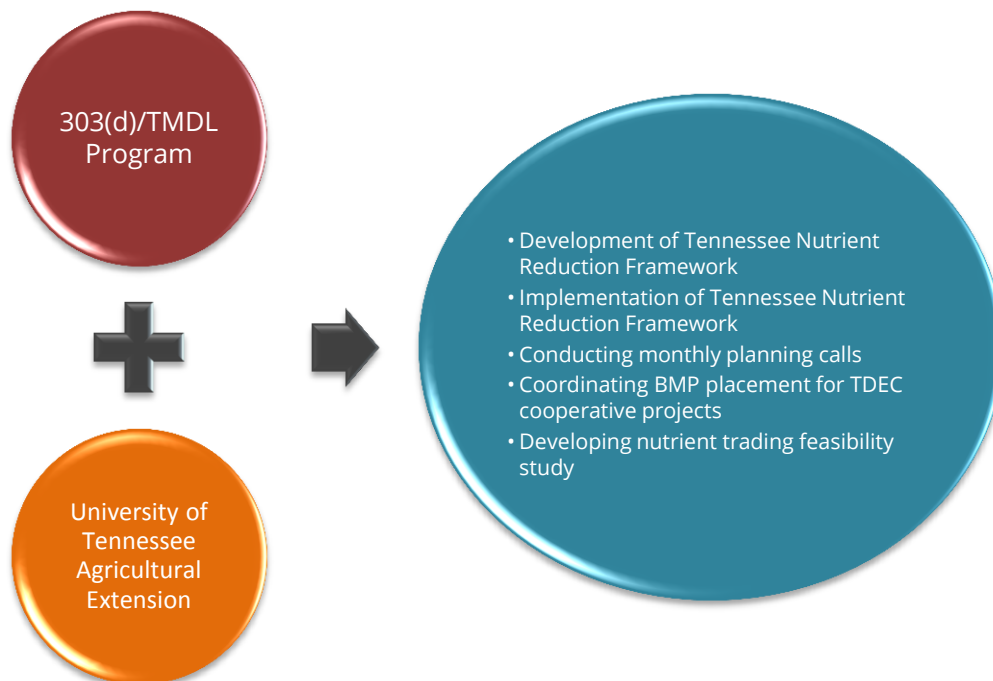
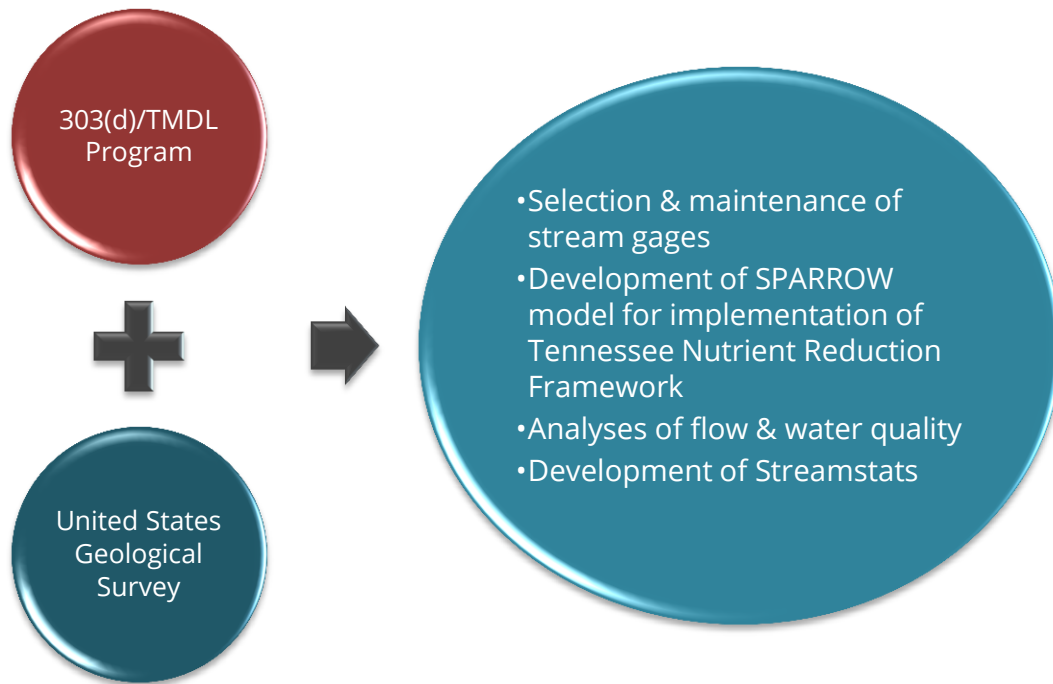
INTEGRATION WITH CLEAN WATER ACT PROGRAMS (continued)



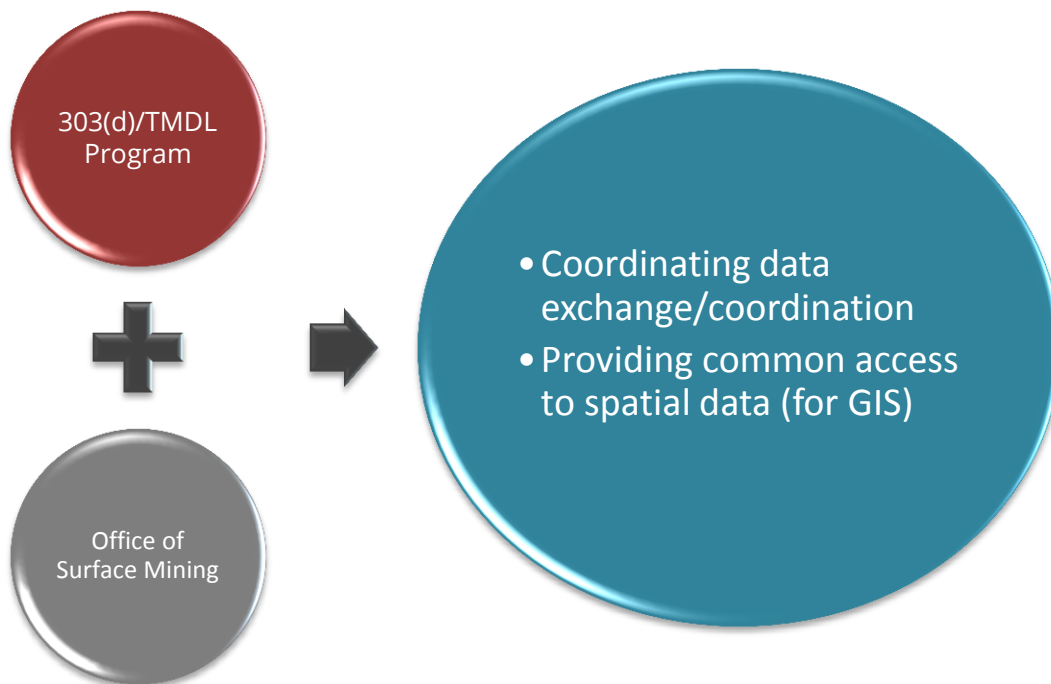
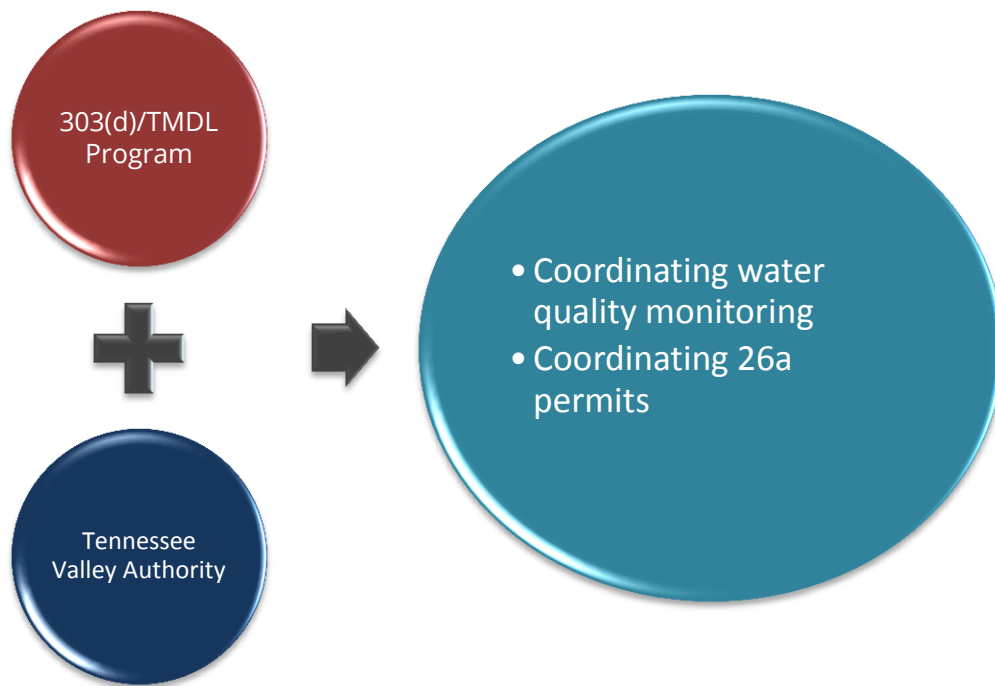
INTEGRATION WITH NON-CLEAN WATER ACT PROGRAMS



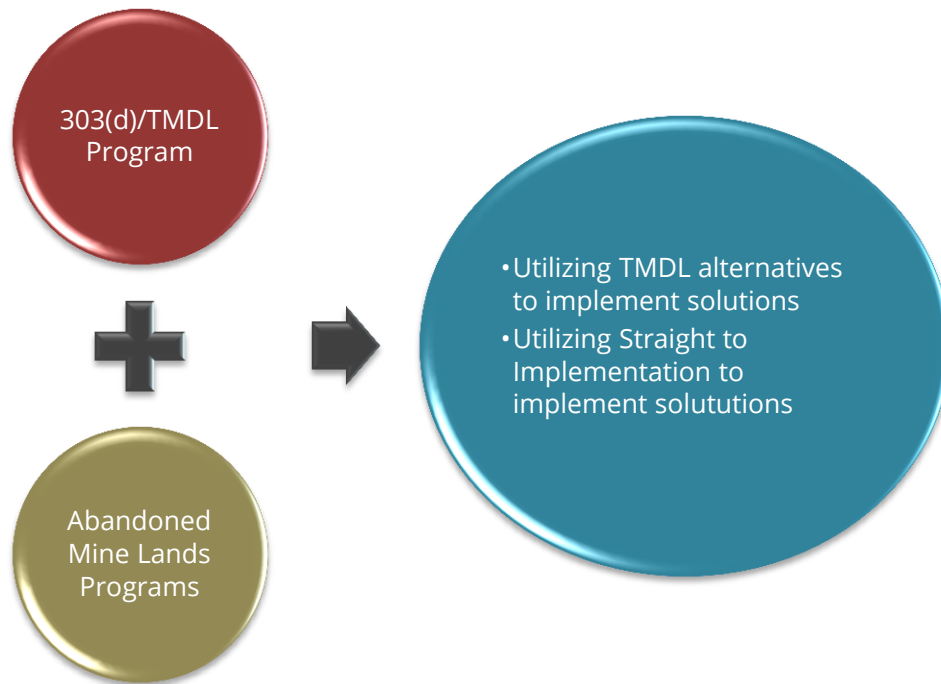
INTEGRATION WITH NON-CLEAN WATER ACT PROGRAMS (continued)



INTEGRATION WITH NON-CLEAN WATER ACT PROGRAMS (continued)



INTEGRATION WITH NON-CLEAN WATER ACT PROGRAMS (continued)



WEB SITES REFERENCED

Vision and Goals:

http://www.epa.gov/sites/production/files/2015-07/documents/vision_303d_program_dec_2013.pdf.

How Tennessee Implements the Priority Goal for TMDL Development Under the 303(d) Long-term Vision”:

http://tn.gov/assets/entities/environment/attachments/wr-ws_tmdl-priority-framework-101415.pdf

WATERSHED SCHEDULE:

(<http://tn.gov/environment/article/wr-ws-watershed-management-cycle>),

Listing of watershed events:

<http://tdeconline.tn.gov/watershedstory/>

TDEC/DWR Facebook page:

<https://www.facebook.com/TDECWatershedManagement>

Data viewers

<http://www.tn.gov/environment/article/wr-water-resources-data-viewer>

GIS viewers

<http://tdeconline.tn.gov/arcgis/rest/services>

Geoform for submitting stream restoration sites:

<http://tdec.maps.arcgis.com/apps/GeoForm/index.html?appid=b6f46c9317e54962aa20a7daf3cc74>

Geoform for viewing all submitted stream restoration sites:

<http://tdec.maps.arcgis.com/home/webmap/viewer.html?webmap=91363a9750544db0918544e7a14090ea>

401 Certification:

<https://www.epa.gov/cwa-404/clean-water-act-section-401-certification>

Category 4b:

https://www.epa.gov/sites/production/files/2015-10/documents/2009_06_04_tmdl_results_36monschein_wef07_paper7.pdf

Integrated Reporting Guidance:

<https://www.epa.gov/tmdl/integrated-reporting-guidance>

CERCLA:

<https://www.epa.gov/superfund/superfund-cercla-overview>

Farm Bill Programs:

<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/farmbill/?cid=stelprdb1244022>

WEB SITES (cont'd)

NRDAR:

<https://www.doi.gov/restoration>

RCRA:

<https://www.epa.gov/rcra>

SDWA:

<https://www.epa.gov/sdwa>

SP-12:

https://www.epa.gov/sites/production/files/2015-07/documents/fy_2015_nwpg_measure_definitions_water_quality_0.pdf

Tennessee Nutrient Reduction Framework:

http://tn.gov/assets/entities/environment/attachments/wr-ws_tennessee-draft-nutrient-reduction-framework_030315.pdf

TMDL:

<https://www.epa.gov/tmdl>

GLOSSARY OF TERMS

26a permits – Permit issued by the Tennessee Valley Authority (TVA) for shoreline construction activities that may affect TVA's management of the Tennessee River Watershed (reservoirs and tributaries). ([more information](#))

106 Workplan - Section 106 of the CWA authorizes the appropriation of monies for federal grants to assist states in administering programs for the prevention, reduction, and elimination of pollution. The states develop a workplan each year to support the funding that they are receiving for the NPDES program, the TMDL program, and the monitoring program. ([more information](#))

319 Program – Section 319 of the CWA establishes a Nonpoint Source Management Program that focuses on the need for federal leadership to guide state and local nonpoint source efforts. States receive grant money that supports many activities for specific nonpoint source implementation projects. ([more information](#))

401 Certification - Physical alterations to properties of waters of the state requires an Aquatic Resource Alteration Permit (ARAP) or a §401 Water Quality Certification to assure compliance with state water quality standards. ([more information](#))

Category 4b – A regulatory alternative to the traditional TMDL process. In this category, a TMDL is not needed because other pollution control requirements are expected to result in the attainment of an applicable water quality standard (WQS) in a reasonable period of time. ([more information](#))

Category 5-alt – Impaired waters for which a state has developed an alternative restoration approach to meet water quality standards in advance of a TMDL. 5-alt (5-alternative) plans contain a description to support that the alternative restoration approach is designed to meet water quality standards and is more immediately beneficial or practicable to achieve water quality standards rather than pursuing the development of a TMDL in the near future. ([more information](#))

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980, which is a federal law designed to clean up sites contaminated with hazardous substances and pollutants. ([more information](#))

Farm Bill Programs – The conservation programs authorized by the federal farm Bill for financial assistance, easements, partnerships, and other programs administered by the federal Department of Agriculture's Natural Resources Conservation Service (NRCS). ([more information](#))

GLOSSARY (cont'd)

NPDES – The National Pollutant Discharge Elimination System is a program established by the Clean Water Act, which prohibits the discharge of pollutants into waters of the U.S. without a permit from the state. ([more information](#))

NRDAR – The Natural Resource Damage Assessment and Restoration is the legal process where federal agencies work with the state to evaluate the impacts of oil spills and hazardous waste sites on our natural resources. ([more information](#))

Plant Optimization – A process to develop plant-specific SOPs that optimize existing systems to reduce effluent nitrogen and phosphorus and reduce energy consumption at a fraction of the cost of traditional nutrient reduction methods.

RCRA - The Resource Conservation and Recovery Act is the public law that sets the framework for the proper management of hazardous and nonhazardous solid waste. The law describes the waste management program mandated by Congress that gave EPA authority to develop the RCRA program. ([more information](#))

SDWA - The Safe Drinking Water Act is the primary federal law intended to ensure safe drinking water for the public. Under SDWA, EPA sets standards for drinking water quality and with its partners implements various technical and financial programs to ensure drinking water safety. ([more information](#))

SPARROW - A modeling tool for the regional interpretation of water-quality monitoring data. The model relates in-stream water-quality measurements to spatially referenced characteristics of watersheds, including contaminant sources and factors influencing terrestrial and aquatic transport. SPARROW empirically estimates the origin and fate of contaminants in river networks and quantifies uncertainties in model predictions. ([more information](#))

Straight to Implementation – A strategy used in advance of a TMDL that recognizes that addressing water quality impairment(s)—when the specific actions to address the impairments are known—may be more immediately beneficial or practicable than developing a TMDL.

StreamStats – A web application that was developed by the United States Geological Survey that incorporates a geographic information system to provide analytical tools that are useful in planning and managing for water resources. StreamStats reports flow at ungagged sites by regional analysis or statistical analysis of stream gage data. ([more information](#))

GLOSSARY (cont'd)

Tennessee Nutrient Reduction Framework – A framework that proposes a methodology for rational and achievable short-term and long-term nutrient load reduction in impaired watersheds. The framework requires no new regulations and addresses both point and nonpoint sources of pollution. ([more information](#))

TMDL – Total maximum Daily Load. TMDLs quantify the amount of a pollutant that can be assimilated in a waterbody while still meeting water quality standards, identifies the sources of the pollutant, and recommends regulatory or other actions to be taken to achieve compliance with applicable water quality standards based on the relationship between the pollution sources and the water quality conditions. ([more information](#))

WLA – Waste load allocation in a TMDL is the sum of all of the point source loads.