



Nutrient Reduction Strategy Implementation in Tennessee

Hypoxia Task Force Meeting
December 14, 2022

1

Tennessee Nutrient Strategy Taskforce Organization and Initial Steps

- In 2019, TDA and the Tennessee Department of Environment and Conservation (TDEC) jointly convened the Tennessee Nutrient Strategy Taskforce
- The Taskforce has met regularly from 2019 through 2022
- Composition of the Taskforce represents intentional collaboration between state agencies, conservation districts, industry, private landowners, agriculture, utility districts, universities, and other groups



2

Organizations Represented on the Taskforce:

Clean Water Professionals of Kentucky and Tennessee	Tennessee Chamber of Commerce and Industry	Tennessee Municipal League	United States Department of Agriculture - NRCS
Middle Tennessee State University	Tennessee Department of Agriculture	Tennessee Stormwater Association	United States Geological Survey
Municipal Technical Advisory Service	Tennessee Department of Environment and Conservation	Tennessee Technological University	University of Tennessee Knoxville
Tennessee Department of Transportation	Tennessee Valley Authority	University of Tennessee Extension Services	Tennessee Association of Utility Districts
Tennessee Farm Bureau	The Nature Conservancy	Oak Ridge National Laboratory	Representatives from private engineering firms



3

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- Composition of the Taskforce represents intentional collaboration between state agencies, conservation districts, industry, private landowners, agriculture, utility districts, and others
- Four primary workgroups were formed
 1. Goals and Metrics
 2. Communication, Education, and Outreach
 3. Monitoring and Data Analysis
 4. BMPs – Municipal, urban, Agricultural, and Industrial Sectors



4

Tennessee Nutrient Strategy Taskforce Accomplishments in FY 2022

- Riparian corridors are the focus of two new programs in Tennessee:
 - TDA has entered a partnership with the Tennessee Valley Authority (TVA) to establish the **Tennessee Riparian Incentive Program** which will provide financial incentives aimed at encouraging landowners to healthy riparian buffers. To this point, TVA has invested \$350,000 towards this effort
 - In 2021 the Tennessee River Basin Network launched its Tennessee **Shade Your Stream Program**. The Shade Your Stream Program empowers nonagricultural landowners to conserve their watershed. Funding has been provided by the TVA, Tennessee Wildlife Resources Agency, and Defenders of Wildlife.



5

Tennessee Nutrient Strategy Taskforce Accomplishments in FY 2022

- TDEC's Division of Water Resources continued promoting its voluntary Tennessee Plant Optimization Program (TNPOP), that provides resources to water and wastewater operators to achieve optimization in energy use and nutrient removal from their facilities through low-and-no-cost measures. This program is a critical part of the TDEC's integrated approach to nutrient management.
- The Tennessee 319 grant program has recently published two **Success Stories**, including one in 2022, on once nutrient-impaired stream segments that have now been found clean enough to meet all intended uses and be removed from the *List of Impaired Waters*.



6

Tennessee Nutrient Strategy Taskforce Opportunities and Plans – FY 2023 and Beyond

- EPA is awarding Tennessee approximately \$5 million over the next 5 years through Bipartisan Infrastructure Law - Gulf Hypoxia Program funding.
- Tennessee is requesting \$1.7 million for the first 2 years.
- Funding to be jointly administered by TDA and TDEC



7

Tennessee Nutrient Strategy Taskforce Opportunities and Plans – FY 2023 and Beyond

- The USGS Tennessee SPARROW Model will be used to prioritize nutrient-impaired watersheds to increase odds of successfully “delisting” many of these stream segments.
- The USDA Natural Resources Conservation Service and The Nature Conservancy have funded Tennessee Technological University to conduct a 5-year study (2019-2023) assessing nutrient retention dynamics in 35 USDA NRCS Wetlands Reserve Program (WRP) easements along major rivers in western Tennessee and Kentucky.
- TDEC will procure additional water quality monitoring equipment and initiate strategically located monitoring activities to address known data gaps and watersheds suspected of high nutrient loadings.



8

Tennessee Nutrient Strategy Taskforce Opportunities and Plans – FY 2023 and Beyond

- TDA is funding and coordinating with University of Tennessee Extension to conduct a statewide survey of farmers regarding fertilizer usage, soil testing, cover crops, no-till cropping, etc.
- TDEC will scale up their Tennessee Plant Optimization Program and optimize up to 40 plants per year for the next 5 years which will result in all mechanical plants in Tennessee attempting optimization.
- TDA will partner with USDA-NRCS and conservation districts to provide additional incentives for applying cover crops on farmland in targeted watersheds selected from the recent SPARROW runs.



9



Thank you...

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10