



SUSTAINABLE PROGRAMS FOR MANAGING WATER RESOURCES

Part of a diversified family of solutions

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Factors Influencing Watershed Health

Pollutants

(Nitrogen, Phosphorus, Sediment,
Chemical Contaminants)

Land Use

(Population, Impervious Surface,
Forest Cover)

Natural Favors

(Weather, River Flow)

Other Pressures

(Climate Change, Invasive Species,
Fisheries Harvest)

About Us

We are committed to meeting new and local government mandates. With the Chesapeake Bay Total Maximum Daily Loads (TMDL) approval and all the local TMDL plans that need to be fulfilled, local governments face daunting water resource mandates. The no-net-increase (NNI) requirement for sediments and nutrients directly affects economic development at the county and local levels. How local governments respond to these mandates is critical to both local environmental and economic health.



Sustainable Programs for Managing Water Resources

The need to address water resource protection and restoration is immediate. Lack of sufficient progress in addressing restoration of the Chesapeake Bay has resulted in federal mandates for action by the states which will identify local level water resource goals. Local stream TMDLs also require action at the local level to improve water quality.

Management of water resources in the urban and suburban environment has lagged behind efforts in rural areas. Continued growth has made the ability to address water resource issues difficult, with problems often increasing rather than decreasing in some areas.

Challenges for local governments from a budgetary standpoint make it difficult to move forward in solving water resource problems identifying funding, technical assistance critical needs, and protecting these resources.

Challenges & Mandates

- Agriculture & Regulatory Compliance
- Urban Stormwater Retrofits
- NNI in Loads with Economic Growth
- Stormwater Offsets for New Development
- Wastewater Loads & Future Growth
- Manure Management & Load Reductions
- Local TMDL Implementations & BMPs
- Chesapeake Bay TMDL Goals & BMPs



Water Resources & Environmental Planning Issues & Needs

- Chesapeake Bay TMDL Mandates
- Local TMDLs & Implementations
- Water Resource Elements
- Stormwater Planning & Retrofits
- Wastewater & Growth (NNI)
- Source Water Protection
- Economic Development & Growth (NNI)
- Comprehensive Planning
- Integrated Water Resource Planning
- Green Infrastructure Plans
- Watershed Planning
- Agricultural Compliance/Preservation
- Groundwater Protection
- Environmental Stewardship/Education



Innovative Successes

Nutrient Trading - Point to non-point trades address agricultural and wastewater facility load reduction needs cost-effectively.

Lycoming County Chesapeake Bay Program - Successful proactive BMP and Chesapeake Bay load reduction program for the county.

Manure to Energy Concepts - Project concepts and implemented projects utilize manure to produce energy with multiple benefits.

Stormwater Offsets through Restoration - Stream restoration will yield created wetlands, nutrient credits, and stormwater offsets to address NNI.

Manure and Abandoned Mine Lands - Excess manure from agricultural areas is used to rehabilitate abandoned mine lands, where biomass can be grown as a renewable energy source.

Sustainability Program Assistance

JMT helps address water resource mandates, issues, and needs. We strongly encourage the adoption of program sustainability principles for advancing and maintaining water resource efforts.

Funding water resource programs largely through tax increases is typically not viable. We assist with identifying funding mechanisms to kick-start or advance water resource programs, while exploring the potential natural resource assets that can provide program sustainability.

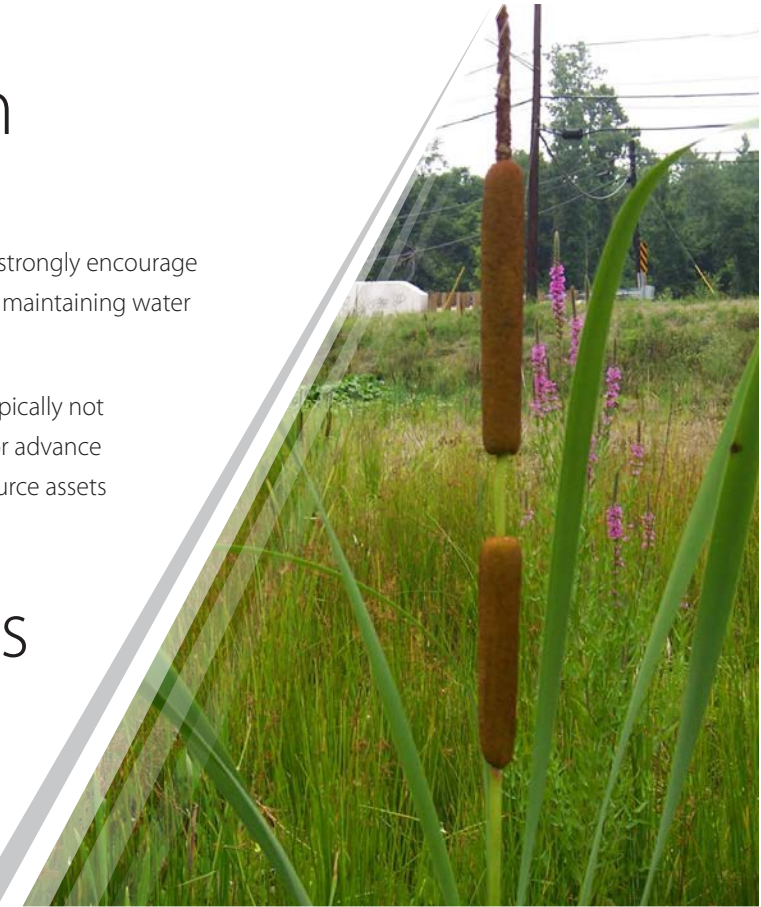
Innovative Approaches

Program sustainability through ecosystem services and recognized financial incentives.

Program promotion and financing through public-private partnerships.

Funding assistance through federal, state, private, and nonprofit grant programs.

Cost effectiveness through integrated planning and multiple resource goal achievement.





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