

Goal

The Goal of this twenty-year plan is to ensure clean water for drinking, agriculture, wildlife, recreation, and other aspects of life in the Turkey River Watershed. The TRWMA recognizes that water resources in the TRW face challenges from primarily nutrient loading, sedimentation, and bacteria. Each pollutant has multiple sources and poses different problems for water resources in the TRW. Therefore, a multifaceted approach must be used to improve and protect the long term health of the water resources in the watershed. Efforts to address specific water resource issues can be geographically focused based on data collected through water sampling at 50 sites across the watershed, which began in 2011. To achieve the goal of this plan requires a reduction of all three primary issues; nutrient loading, sedimentation, and bacteria levels in the Turkey River main stem and at each sampling site in the TRW. Additionally, strategies should address both the annual mean and annual maximum levels for each parameter. Like the flood reduction portion of this plan, the conservation work and best management practices that will be utilized to reach this goal will have a multitude of other benefits.

Objectives

Objective 1: Develop a team of flood mitigation and water resource improvement professionals.

Objective 2: Implement conservation practices and innovative cropping systems that stop or slow rainwater where it falls or increase rainwater infiltration so that stormwater runoff is reduced.

Objective 3: Slow down rainwater runoff and reduce the frequency and intensity of heavy flash flows into streams and rivers, thereby protecting aquatic and riparian habitat, streambanks, stream and river substrate, conservation practices, and private and public infrastructure.

Objective 4: Restore and protect streams, the river, and near stream ecosystems to increase their capacity, hold storm water runoff, increase stability/resiliency during rainfall/runoff events.

Objective 5: Permanently protect and/or enhance highly sensitive, priority properties adjacent to and near streams and rivers to increase the floodplain capacity.

Objective 6: Work with TRW Communities to implement SMART Planning practices (Specific, Measurable, Achievable, Realistic Informed, Timely Planning practices).

Objective 7: Use existing and new education and outreach methods to engage producers and community members in all aspects of flood protection.

Objective 8: Work with TRWMA members and partners to develop and implement policy that supports a hydrologically resilient TRW: i.e. policies that help decrease stormwater

runoff, lower peak flows during heavy rainfall events, and develop a landscape that is more resistant to drought.

Objective 9: Quantitatively document the hydrological, water quality, social, and policy impacts and changes that result from the implementation of this plan.

Objective 10: Maximize in-field management of applied nutrients to increase productivity and reduce nutrient loss from agricultural lands.

Objective 11: Encourage managed application of nutrients in communities and residential areas to reduce nutrient loss.

Objective 12: Reduce or capture nutrient movement through subsurface drainage.

Objective 13: Work with agricultural producers to explore technological opportunities for improved water resource and nutrient management that maximizes productivity and return of investment.

Objective 14: Expand management of bacteria including fecal coliform, E-coli, and other forms of bacteria that are contributed by human and non-human sources.

Objective 15: Increase awareness of issues related to disposal of pharmaceutical and personal care products (PPCPs) and implement measures to reduce improper disposal of PPCPs.

Objective 16: Research, identify, and enter into partnerships that provide opportunities that help us understand, adapt to, and address social, structural, technological, industrial, and infrastructural changes and trends.