North Central Texas Water Quality Project

Nine Elements of a Watershed Protection Plan

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1. Identify the sources and causes of pollution
2. Estimate the necessary load reductions
3. Describe Point Source and Non-Point source management measures
4. Assess the technical and financial assistance needed
5. Design an informational/educational component
6. Develop a schedule of implementation
7. Set interim measurable milestones for progress
8. Establish criteria to determine load reductions
9. Create a monitoring component

North Central Texas Water Quality Project

Element 1: Identify Causes of Concern
• Point Source Pollution
  – Wastewater Treatment Plant Discharges
  – Industrial Discharges
  – Confined Animal Feeding Operations (CAFO)
• Non-Point Source Pollution
  – Stormwater
  – Agricultural Run-off
  – Sediment
  – Nutrients
  – Toxic chemicals

Element 2: Estimate Load Reductions
Load Reductions based on:
• SWAT model outputs
• Effectiveness of Best Management Practices (BMP) tied to land use and changes

Element 3: Nonpoint Source Management
Best Management Practices Implementation
• Structural
  – Filter strips
  – Grasped Waterways
  – Rain Gardens
  – Constructed Wetlands
• Behavioral
  – Nutrient Management (Urban and Agricultural)
  – Pet Waste Clean up
  – Wise use of pesticides
Element 3: Point Source Management
- Infrastructure upgrades to WWTP's
- Permitting programs
- Stormwater development planning

Element 4: Assess Technical and Financial Assistance Needed
Technical:
- AgriLife Extension
- TCEQ
- SWCD
- USDA-NRCS
- TRWD
- TPWD
Funding:
- EPA
- TCEQ
- TSSWB
- USDA-NRCS
- Local Grants
- Local Government
- TRWD
- Others

Element 5: Design Education Component
- Mass Media
- Demonstration sites
- Meetings and workshops
- Onsite technical assistance
- Citizen monitoring programs
- Training and certification programs

Element 6: Develop a Schedule of Implementation
- Nonpoint source structural improvements
- Point source discharge (based on improved standards)
- Educational programs
- Monitoring Programs

Element 7: Set Interim Measurable Goals
Watershed
- Implementation of BMPs
Reservoir
- Water Quality improvement

Element 8: Establish Criteria to Determine Load Reductions
Watershed
- Number and type of structural Best Management Practices established
Reservoir
- Achievement of TCEQ Standards
- 303(d) status
**Element 9: Create a Monitoring Program**

**Watershed**
- Quarterly Water Quality Monitoring of Strategic Locations
- Quarterly Monitoring of Ambient Water Quality in Eagle Mountain Reservoir

**Educational**
- Behavioral changes resulting from education programs

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