Eagle Mountain Lake and Watershed

David Waidler
Texas AgriLife Research
Watershed Coordinator
North Central Texas Water Quality Project
Eagle Mountain Environmental Sampling Program

Legend
- Reservoir Site
- WASP Segment
- Tributary Site
- WWTP Site

EM Chl'a' 1989-2009
n = 637, Median = 19.3, APR = 3.53%
Eagle Mountain Watershed

- Watershed size – 860 square-miles
- Lake Surface area - 8702 acres
- Lake Conservation Storage - 182,505 ac/ft
  (1 acre foot = 325,851 gallons)

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Eagle Mountain Lake Water Quality -

Reservoir
- High pH
- Sediment
- Use Concerns
  - Depressed Dissolved Oxygen
    - Aquatic Life Use Concern
  - Ammonia, Orthophosphorus, Total Phosphorus, Nitrite
    - Nutrient Enrichment Concern
  - Excessive Algal Growth, Chlorophyll-a
    - Algal Growth Concern

Watershed
- Texas Water Quality Inventory- Clean Water Act 303(d) Listing for
  - Bacteria (Upper West Fork Trinity below Bridgeport Dam)
  - Standards are currently under review
TP Loading by Landuse

TP Loading by Landuse

Urban, 16.16%  
Forest, 0.30%  
Cropland, 32.16%  
Channel, 25.05%  
WWTP, 4.88%  
Rangeland, 14.46%  
Wetland, 0.00%  
Pasture, 7.00%

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Watershed Protection Planning for Eagle Mountain Lake

- Analysis of point and non-point source pollutant sources utilizing local knowledge, ground surveys, and computer modeling.
- Planning Guided by 30% Reservoir Phosphorus Reduction Goal.
- Follows USEPA 9 Element Guidelines for watershed planning.
- Sub-watershed and site specific best management practice selection and implementation to reach stated pollutant reduction goal.
- Economic assessment of proposed management solutions.
- Management scenarios vetted through computer modeling
- Targeted Education and Outreach Programming.
- Monitoring of results to ensure success.
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Partners in Watershed Planning