

North Central Texas Water Quality Project



Setting Water Quality Goals

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Texas Surface Water Quality

- Federal Clean Water Act Sections 305 (b) and 303 (d)
- State of Texas has established Standards to protect the purpose for which waterbodies will be used
 - Designated uses are assigned to each water body

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Water Quality - 303 (d) Listing

Draft 2006 Data

- High pH
 - Category 5c, on 303(d) list
 - Additional data and information will be collected before a TMDL is scheduled
- 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

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Criteria Applicable to Cedar Creek

- Numeric Criteria
 - Dissolved Oxygen
 - pH
- Narrative Criteria
 - Nitrogen
 - Phosphorus
 - Excessive Algal Growth
 - Chlorophyll a

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Chlorophyll-a

- Chlorophyll-a is the primary photosynthetic chemical found in algae and an indicator of the free floating algae in water
- Chlorophyll-a in the water column also reduces the amount of light available to rooted aquatic plants
- TCEQ proposed Chl-a Criteria: 23.47 ug/L*
- Annual Median Dam Site (CC-06) 16.5 ug/L
- Annual Median Water Intake (CC-04) 19.5 ug/L
- Chl-a is controlled through measures that limit the loadings of nitrogen & phosphorus

*Per draft TCEQ Nutrient Criteria – May 16, 2007

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Nutrients

- Compounds which stimulate and sustain the growth and development of aquatic plants and algae
- Nitrogen
 - Proposed Criteria - .995 mg/L*
 - 1989-2006 Annual median at Dam Site 0.96 mg/L
 - 1989-2006 Annual median at Water intake 0.97 mg/L
- Phosphorus
 - Proposed Criteria - .068 mg/L*
 - 1989-2006 Annual median at Dam Site 0.06 mg/L
 - 1989-2006 Annual median at Water intake 0.08 mg/L

*Per draft TCEQ Nutrient Criteria – May 16, 2007

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Water Quality Goals

- **Sediment**
 - % Reduction
- **Nitrogen**
 - Proposed Criteria - .995 mg/L
 - % Reduction
- **Phosphorus**
 - Proposed Criteria - .068 mg/L
 - % Reduction