Eagle Mountain WASP Model

Jennifer Owens
Environmental Division
Tarrant Regional Water District

North Central Texas Water Quality Project

Eagle Mountain
17 Segment
WASP Schematic

Eagle Mountain
SWAT to WASP Connections

Flow Volume Comparison

Eagle Mountain Chl'a' Main Pool 3Q
n=38, Median 19.1, APR 7.02%

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Limiting Factors for Chl-a Growth
- Nitrogen
- Phosphorus
- Light

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Nutrient Sources to WASP
- NPS File (SWAT Watershed Loads)
- 2 Point Source Inputs
- Atmospheric Deposition
- Internal Flux

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WASP 8 State Variables Inputs
1. Dissolved Oxygen
2. Biological Oxygen Demand
3. Chlorophyll-a
4. Ammonia-N
5. Nitrate-N
6. Organic Nitrogen
7. Ortho-phosphorus
8. Organic Phosphorus

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Daily Total Phosphorus Load into EM Reservoir

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Daily Total Nitrogen Load into EM Reservoir
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WASP Calibration Post Processor Charts

WASP Post Processor Parameters
- Dissolved Oxygen
- Chlorophyll-a
- Total Phosphorus
- Ortho-phosphorus
- Organic Phosphorus
- Phosphorus Limit
- Total N/Total P
- Total Nitrogen
- Ammonia
- Nitrate
- Organic Nitrogen
- Total Inorganic Nitrogen
- Nitrogen Limit
- Inorganic N/Inorganic P

Upcoming WASP Projects
- Calibrate 10 year model
- Sensitivity analysis with incremental load reductions
- Sensitivity analysis with source loads