Meeting Overview

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Review and Discussion
of Plum Creek Load Duration Curves

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Progress on the Watershed Protection Plan Development

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Next Steps

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Role of Work Groups

- Work groups are an extension of the steering committee that discuss and work on specific topical areas.
- Make recommendations and develop components of the WPP for their topic.
- Provide leadership in implementation of practices.

Work Group Tasks

- Identify pollutant sources.
- Gather data and information and identify gaps.
- Estimate pollutant loads
- Set Goals and Objectives
- Identify BMPs that could be implemented to reduce pollution.
- Identify Outreach and Education that is needed
- Develop an Implementation Schedule.

Work Groups

1. Outreach and Education
2. Urban Stormwater and NPS
3. Agriculture NPS
4. Wastewater Infrastructure/Industry
5. Water Quality and Habitat

Load Duration Curves (LDC)

Used for analyzing trends and sources of contaminants

GBRA monitoring site 17406 (near Uhland)

Flow Duration Curve (01/01/1980 to 04/04/2006)

- Stream flow rates (Y axis) vs. percent of days the stream flow exceeded a value on the Y axis (X axis)
- Stream flow data was based on adjusted USGS 8172400 flow data
LDC analysis for TCEQ site 12647 near Lockhart

Monitor loads for 12647 fall close to the target loads (given by LDC) for varying range of flows
Stream flow data obtained from USGS 8172400, since very good compliance between USGS flow data and 12647 flow data for the same monitoring dates

E. Coli LDC with WWTP data

Waste water treatment plant Lockhart 2 is always below its permitted load limit. However, permitted load is indifferent to lower stream load limits during low flow and no flow conditions.

LDC analysis for GBRA site 12640 near Luling
E. Coli LDC - Luling

GBRA Site 12640 (near Luling) Load Duration Curve (monitoring data 1996 to 2006)

Load Duration Curve (at water quality standard)
Load Duration Curve (with 10% margin of safety)
Highest Measured Concentration
Actual EColi Loads as Sampled
Measured Ecoli (from FC) Loads

1000000
10000000
1E+08
1E+09
1E+10
1E+11
1E+12

Percent of days exceeded

Preliminary reduction in load in mid-range flow regime, based on current trend = 58%

Total Nitrate+ Nitrite LDC, Luling

Load Duration Curve for Total NO3+NO2-N (standard = 2.76 mg/l)

Total Phosphorus LDC, Luling

Load Duration Curve for Total Phosphorus (standard = 0.8 mg/l)