Ambient Water Quality Monitoring in the Fanno Creek Watershed 1998-2008

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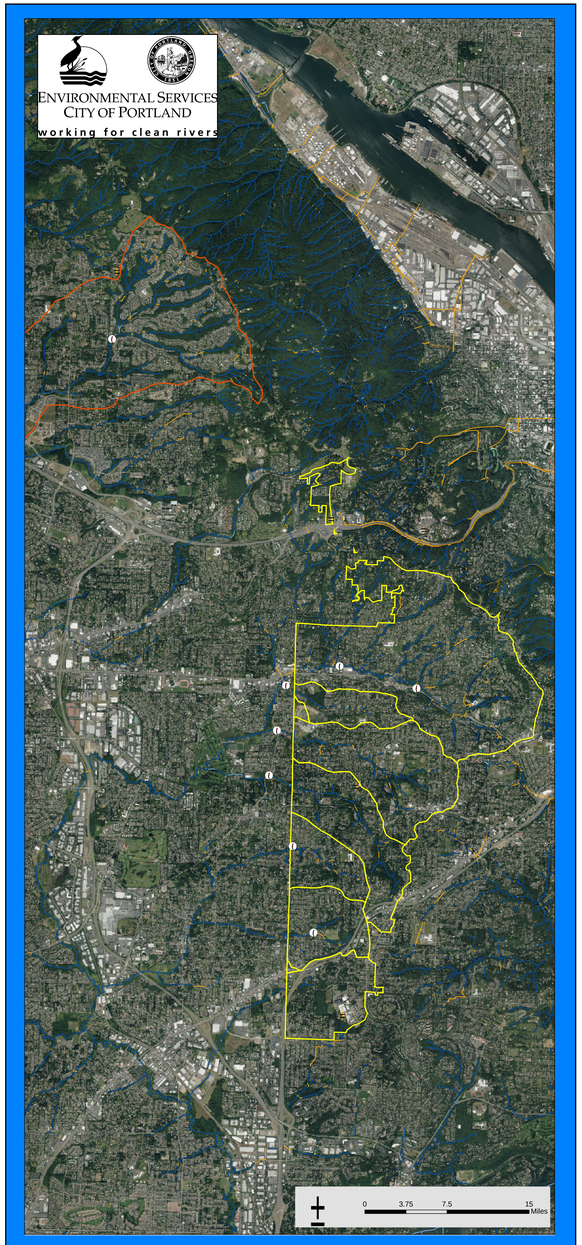
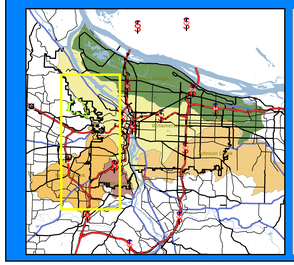
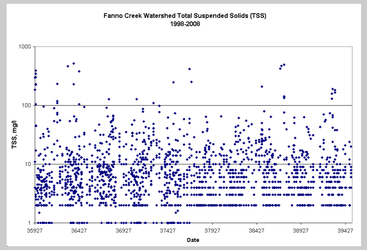


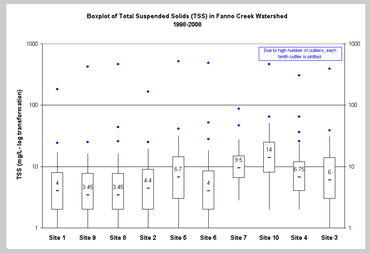


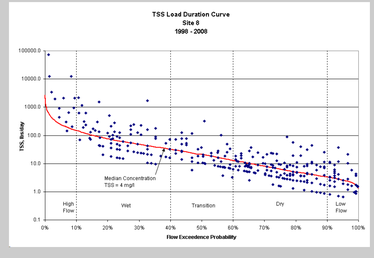
Legend

- Monitoring Sites
- Rain_Gauges
- Fanno Creek Subwatersheds
- Cedar Mill Creek Watershed
- Open Channel
- Ditch
- Water Body
- Stormwater Pipe
- Stormwater Culvert
- Combined Stormwater/Sewer Pipe

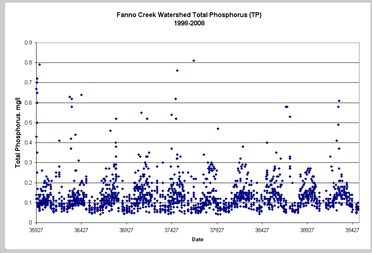
Total Suspended Solids

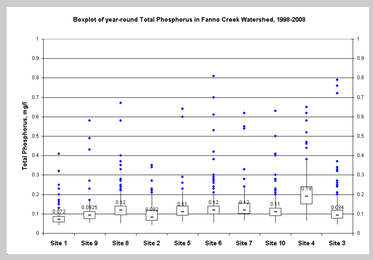


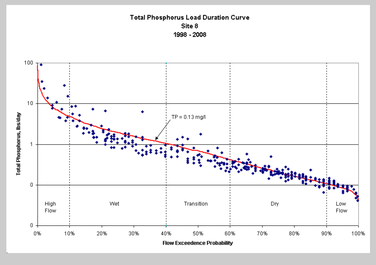




Total Phosphorus







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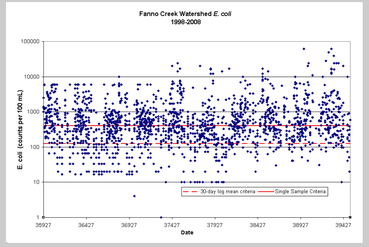
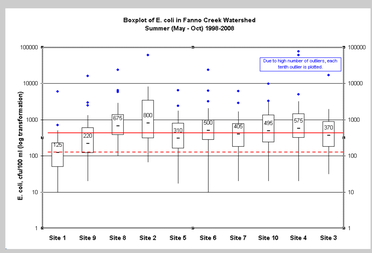
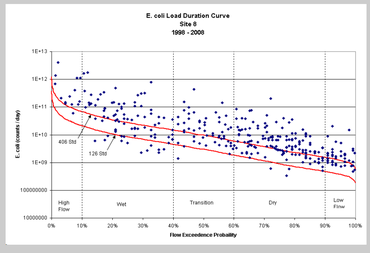
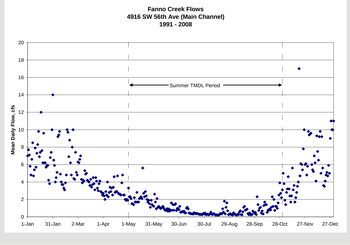
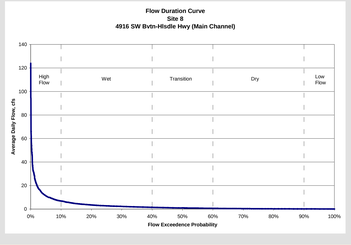








FLOW



Monitoring Program Summary

- **10 Sites Sampling**
- **Frequency: weekly-monthly**
- **Field Measurements**
- **Grab Samples**
- **BES Rain Gages**
- **USGS Flow Gage**

Parameters

Field
- pH
- Conductivity
- Temperature
- Dissolved Oxygen

Laboratory
- Total Suspended Solids
- Total Solids
- Ammonia
- Nitrate
- Total Phosphorus
- Orthophosphate
- Bacteria (E. coli)
- Hardness
- Total and Dissolved Metals

Results Summary

- > 1800 Samples.
- Good characterization of existing conditions.
- Most parameters show high variability.
- Observed water quality parameters highly influenced by hydrologic conditions (stream flow).
- Many parameters exhibit seasonal variations (not shown – temperature, conductivity, dissolved oxygen, nitrate, ammonia)
- Hydrologic and climatic conditions vary on multiple time scales, e.g. daily, seasonal, yearly, decadal, climate warming.
- Data shows little apparent spatial variability
- Trends not apparent.

Future
- Continue Ambient Monitoring program at reduced level of effort.
- Monitor other watershed health parameters
  - o Macroinvertebrates
  - o Fish populations
  - o Steam and habitat conditions