

PSMP Water Quality Monitoring Program

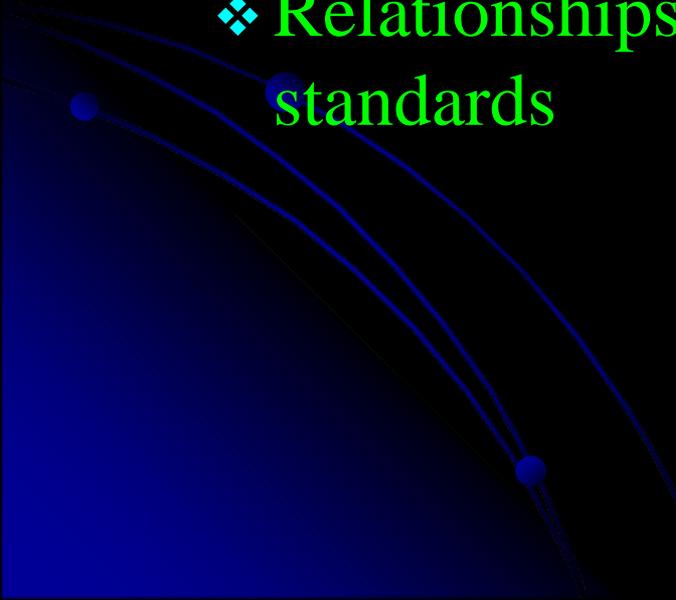
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Walla Walla District

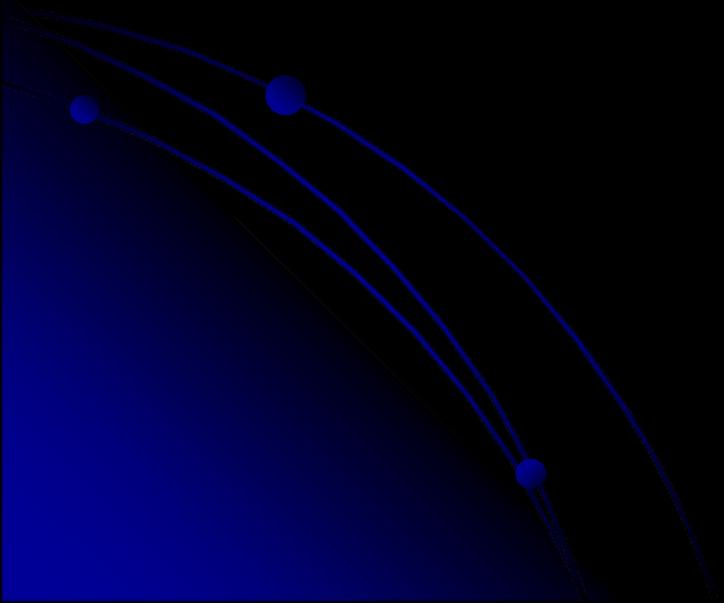
Walla Walla, Washington

Program Objectives

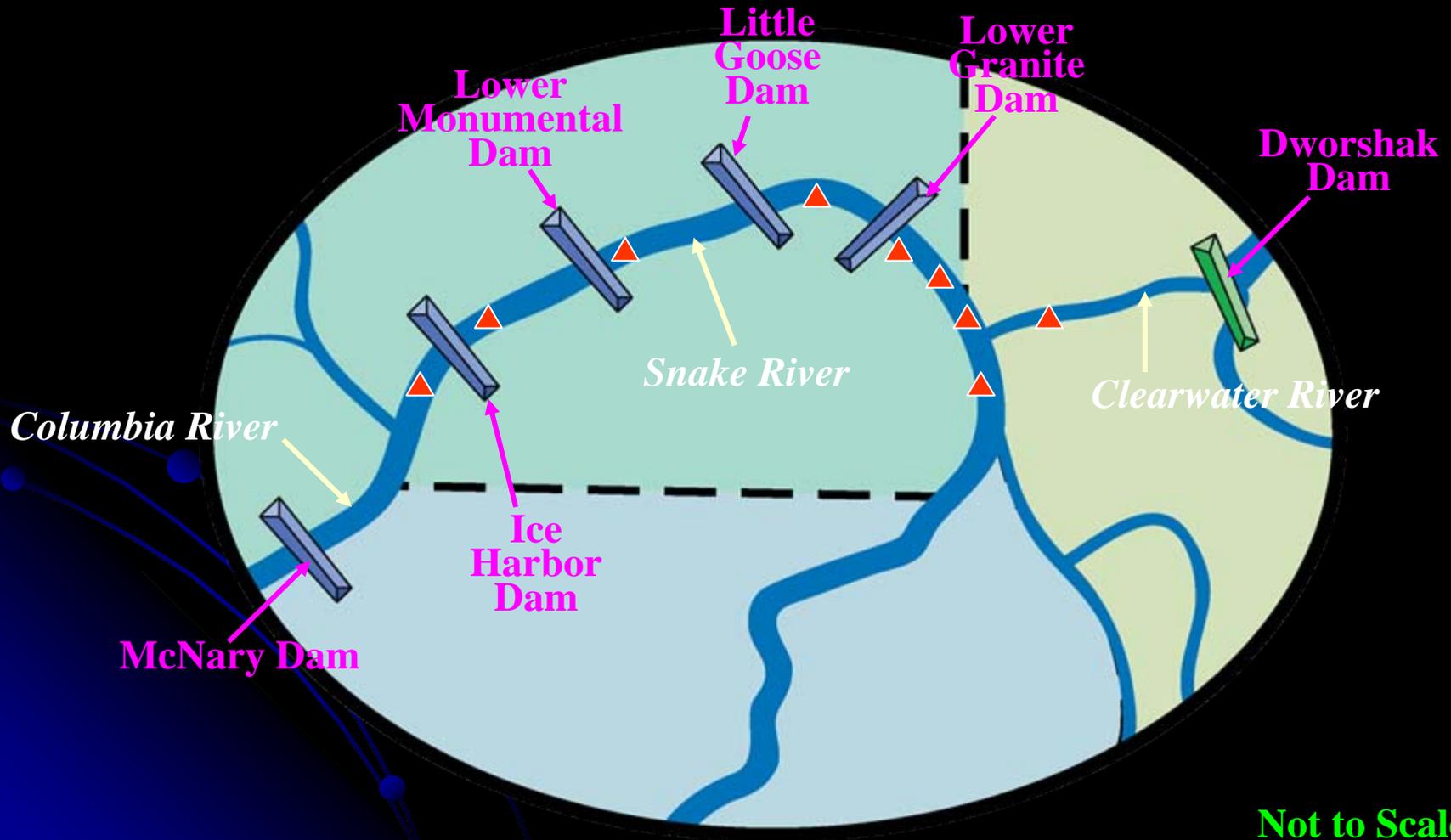
- Collect year-round limnological data
 - Update database and analyze all existing information for:
 - ❖ Spatial and temporal trends
 - ❖ Relationships with applicable state water quality standards
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Monthly Limnological Data Collection

- 9 historical sampling locations for 3 years

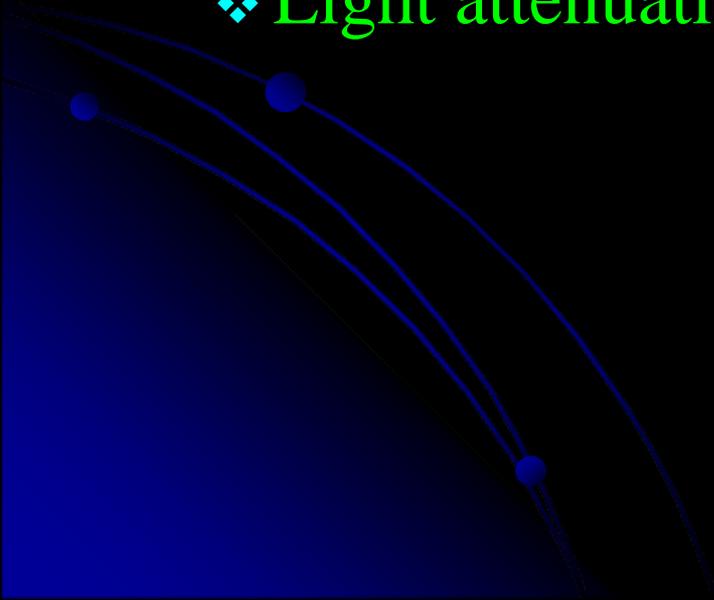


Limnological Sampling Stations



Monthly Limnological Data Collection

- 9 historical sampling locations for 3 years
- Field data collection includes:
 - ❖ Vertical profiles for temperature, conductivity, dissolved oxygen, pH, and turbidity
 - ❖ Light attenuation



Water Sample Collection



Zooplankton Collection

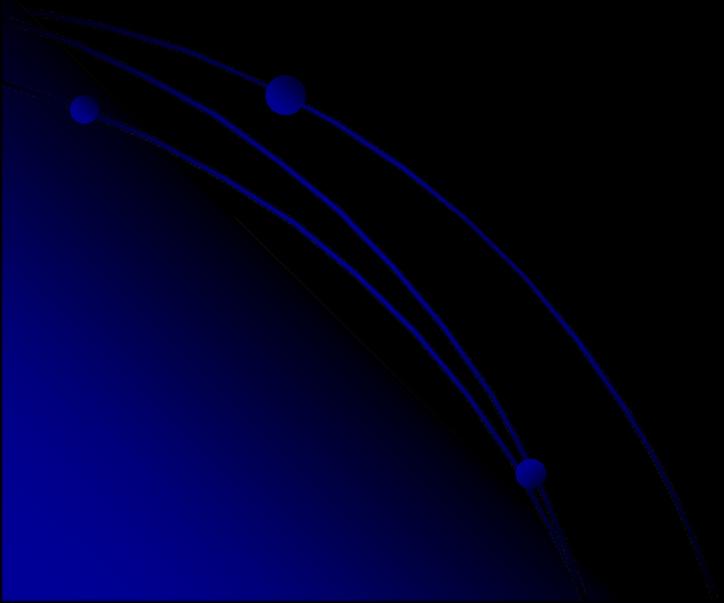


Monthly Limnological Data Collection

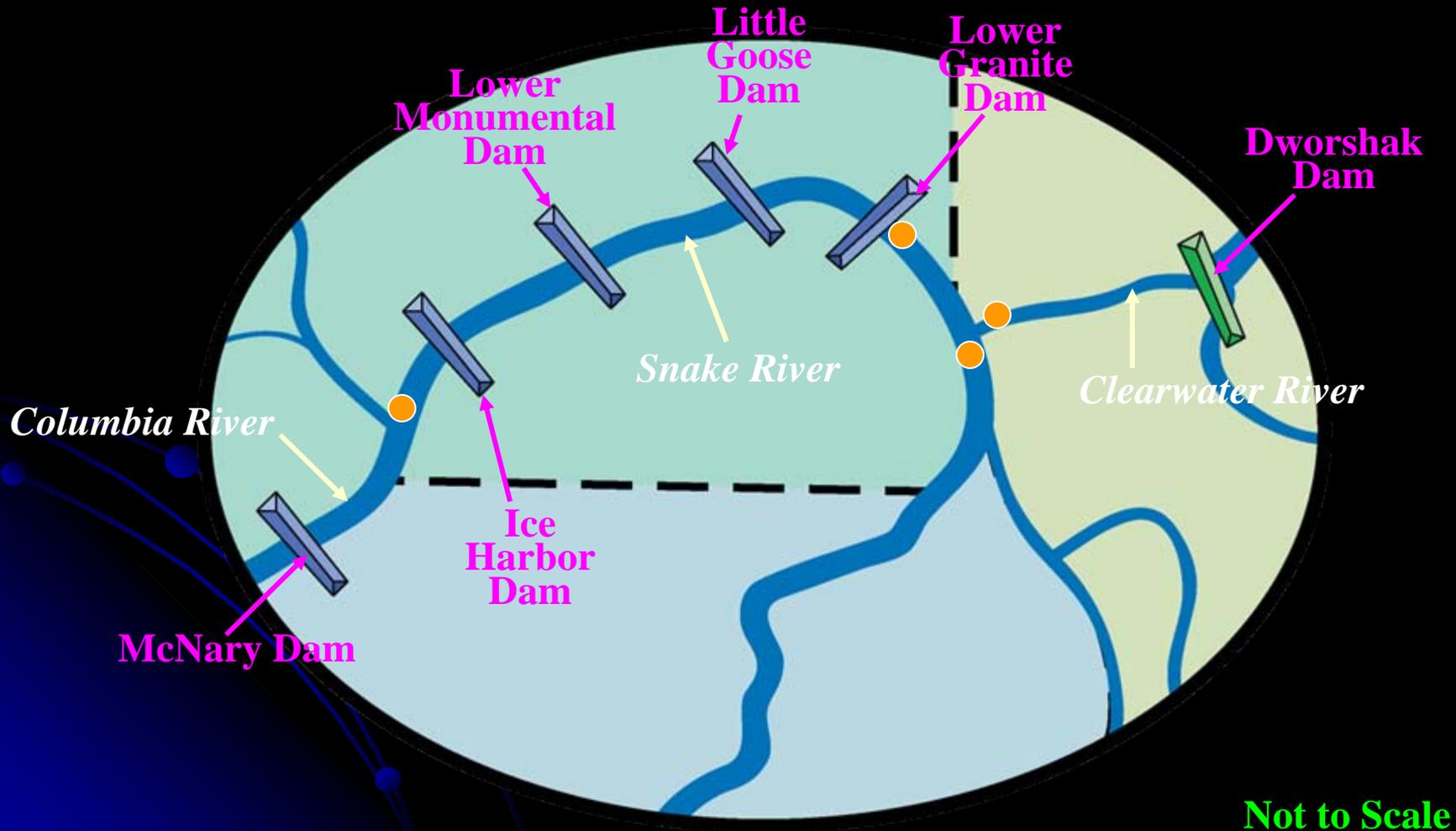
- 9 historical sampling locations for 3 years
- Field data collection includes:
 - ❖ Vertical profiles for temperature, conductivity, dissolved oxygen, pH, and turbidity
 - ❖ Light attenuation
- Laboratory analyses include:
 - ❖ Nutrients, alkalinity, common anions and cations, ICP metals scan, suspended solids, chlorophyll a, phytoplankton, and zooplankton

Real-Time Water Quality Monitoring

- 4 locations in Lower Snake River system



Real-Time Water Quality Monitoring Stations



Water Quality Pontoon



Water Quality Pontoon



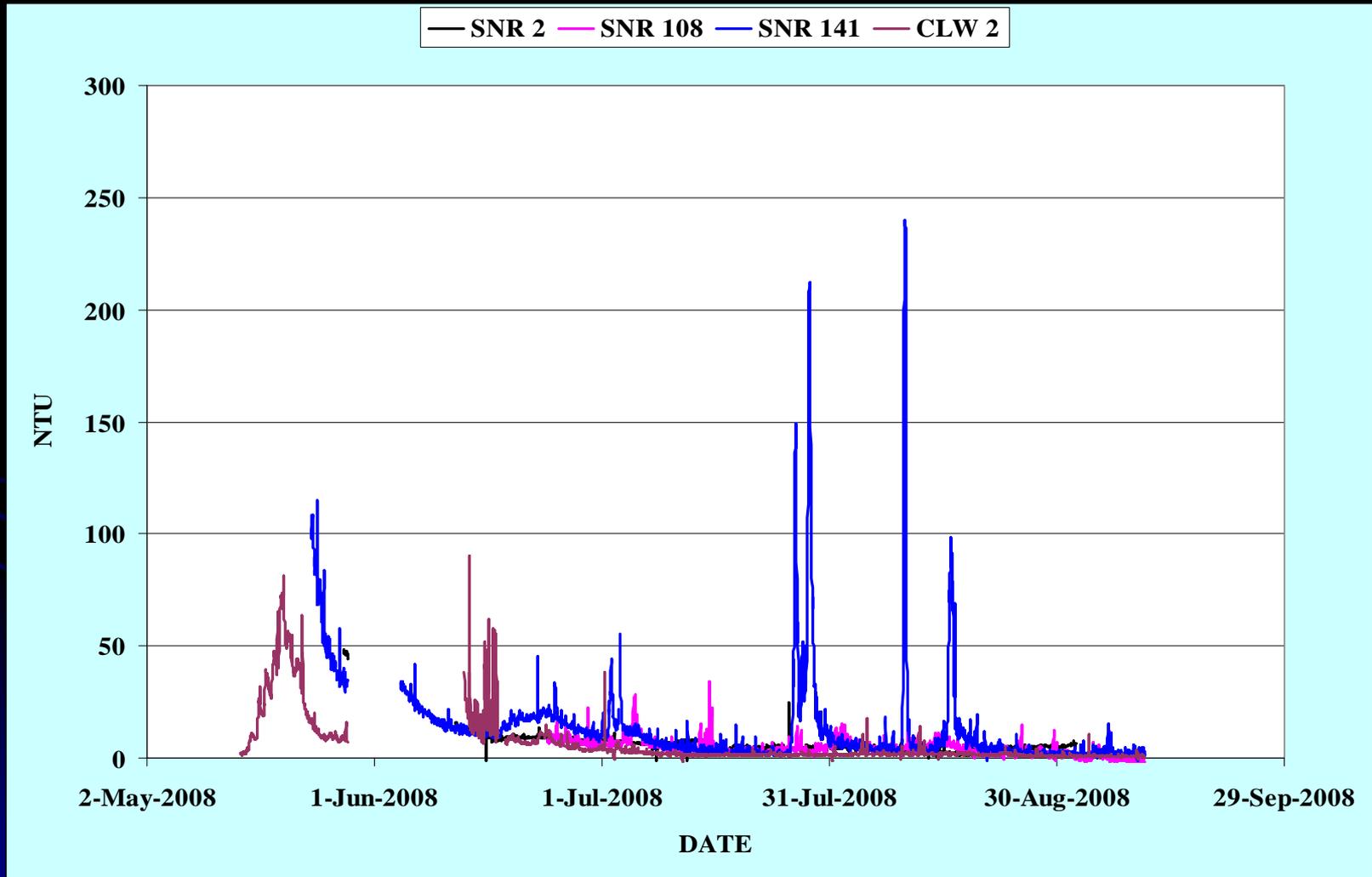
Multi-parameter Probe Used to Collect Real-time Data



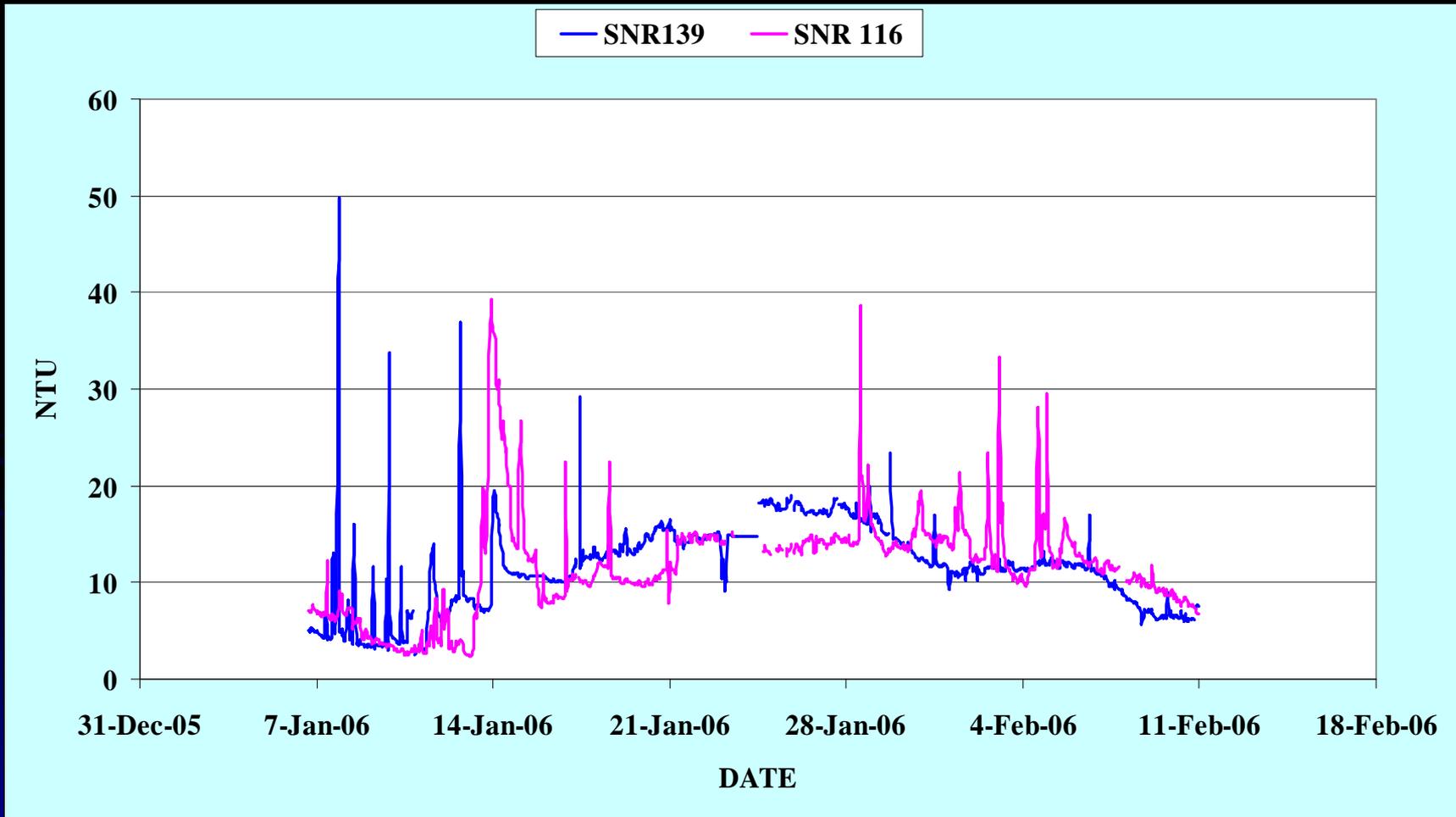
Real-Time Water Quality Monitoring

- 4 locations in Lower Snake River system
- Hourly measurements for:
 - ❖ Temperature, conductivity, pH, dissolved oxygen, and turbidity
- Provisional data can be viewed at:
 - ❖ <http://eureka-data.com/SnakeRiver-WQ>

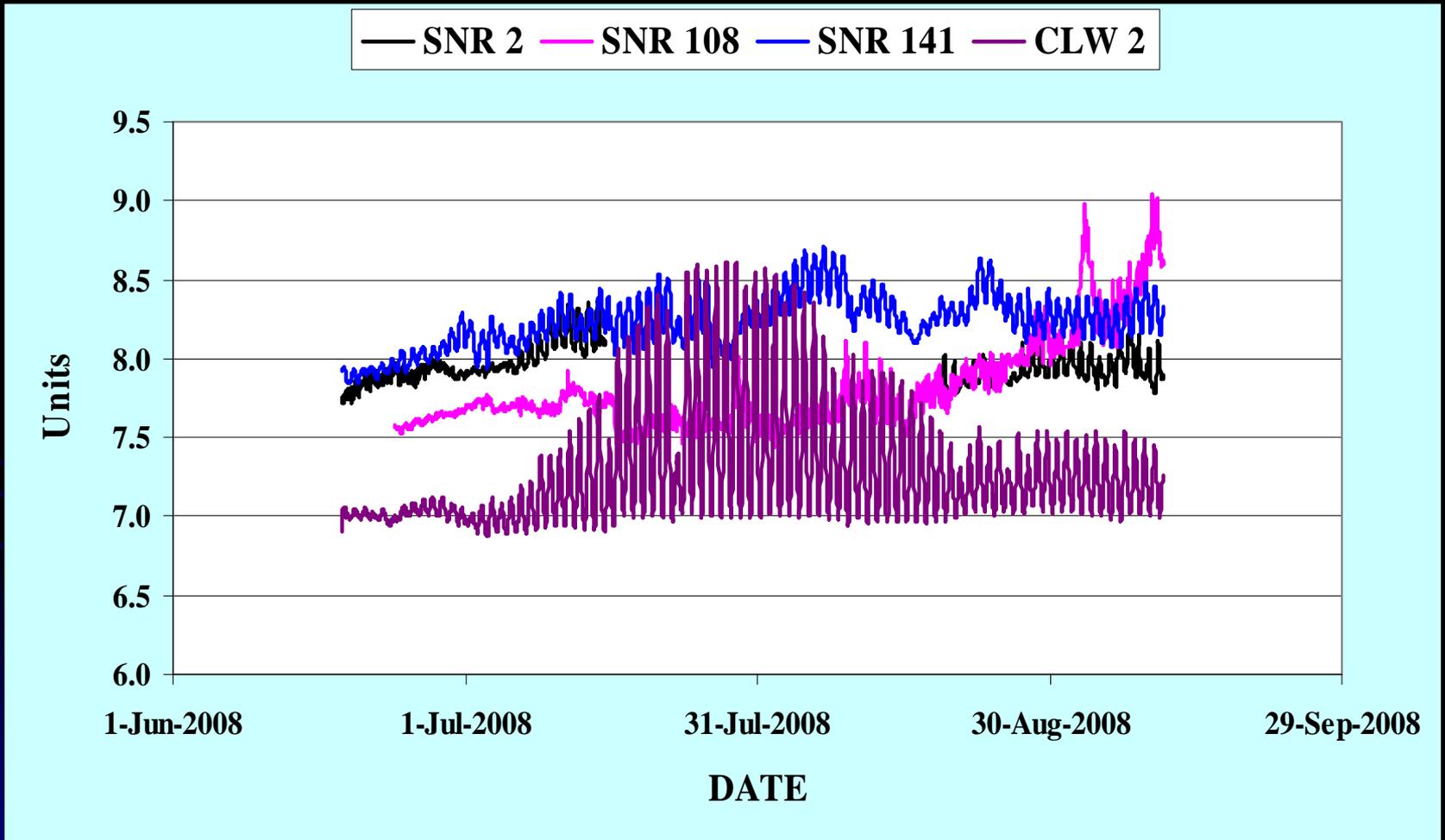
Real-time Turbidity Data



Navigation Channel Maintenance Background 1-m Turbidity Data



Hourly pH Data



Conclusions

- Real-time data collection effort will provide detailed information for some parameters that we do not have
- May need to increase episodic sampling to establish cause/effect relationships
- The results of this data collection effort, when combined with existing data, will increase our understanding of the water quality characteristics of the Snake River system

Questions?/ Comments

