

2015 Ashley Creek Nutrients and Flow Sampling



Background

- Being done in response to the 2014 TMDLs
- Flow and stage measurement at Ashley Lake outlet
- Nutrient and flow sampling from Ashley Lake outlet to Smith Lake
- Data will be used to augment source assessment
 - LSPC model
 - Mass-balance model
- Potential lake sampling for stratification
 - Turnover-related nutrient loading?

Flow and Stage

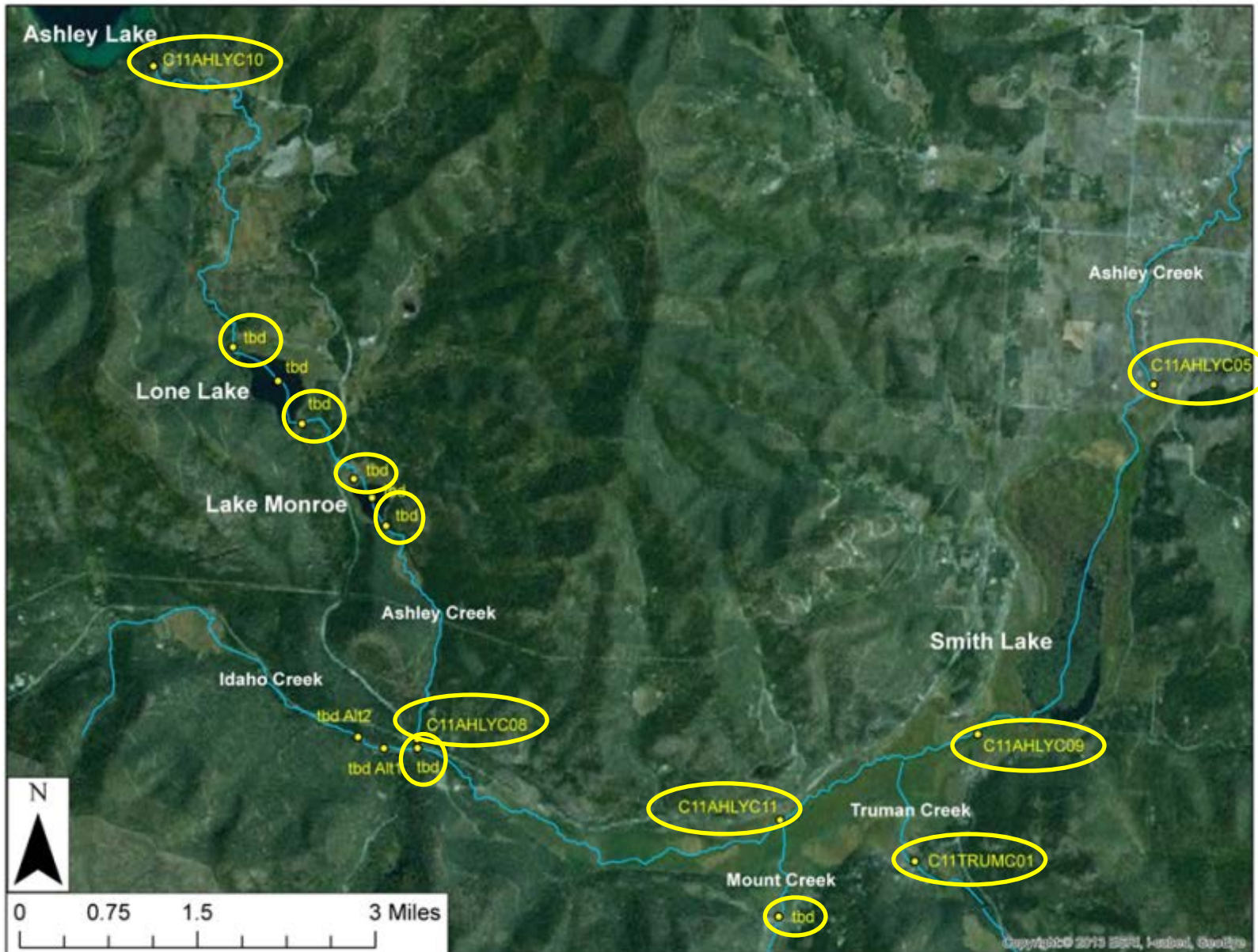
- At the existing staff gage location on Ashley Creek at the outlet
- Install a camera to photograph the gage every 30 minutes – 1 hour
- Measure flow at least twice each month
- Plan to install in June, will remain until ice-over



Nutrients and Flow

- 12 sites
 - Bracket lakes, isolate tributary inputs
- 3 sampling events: July, August, September
- Collecting: Total Nitrogen, Total Phosphorus, Nitrate-nitrite, and Total Ammonia
- Also temperature, dissolved oxygen, specific conductance, and pH
- Measure flow at all flowing sites

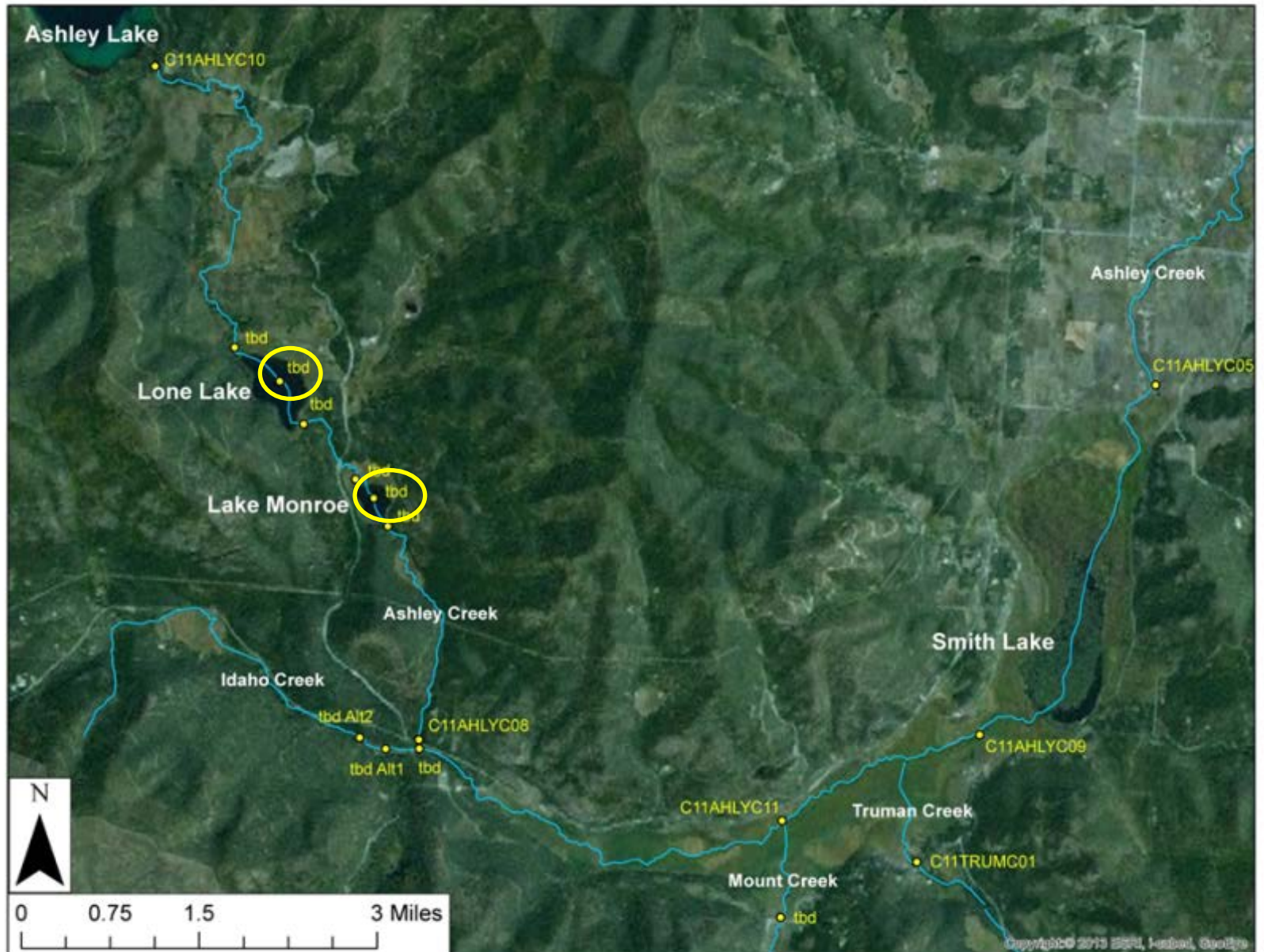
Nutrients and Flow



Lake Stratification

- Lone Lake and Lake Monroe
- 2 (?) sampling events: August and September
- Measure temperature, dissolved oxygen, specific conductivity, and pH at half meter increments
- If stratified, potential additional nutrient sampling to determine if there is a seasonal spike in nutrient concentrations

Lake Stratification



Plan Implementation

- Dependent on stakeholder interest and site access
 - Limited DEQ resources this summer
- From stakeholders:
 - Landowner contact for site access
 - Flow sampling at Ashley Lake outlet
 - Nutrients sampling ?

Plan Discussion?