

Long Term Monitoring Preliminary Discussion of First Round of Water Column SPMD Data

Task Force Meeting
February 24, 2021



Background

- SRRTTF has begun implementing a long-term PCB monitoring program
 - Fish: Year-old Redband Trout
 - Single event per monitoring year
 - Water column: Semi-Permeable Membrane Device
 - Three events per monitoring year: low, moderate and high flow
- Laboratory data from first SPMD event has been received
 - Preliminary discussion of initial data review

SPMD: Semi-Permeable Membrane Device

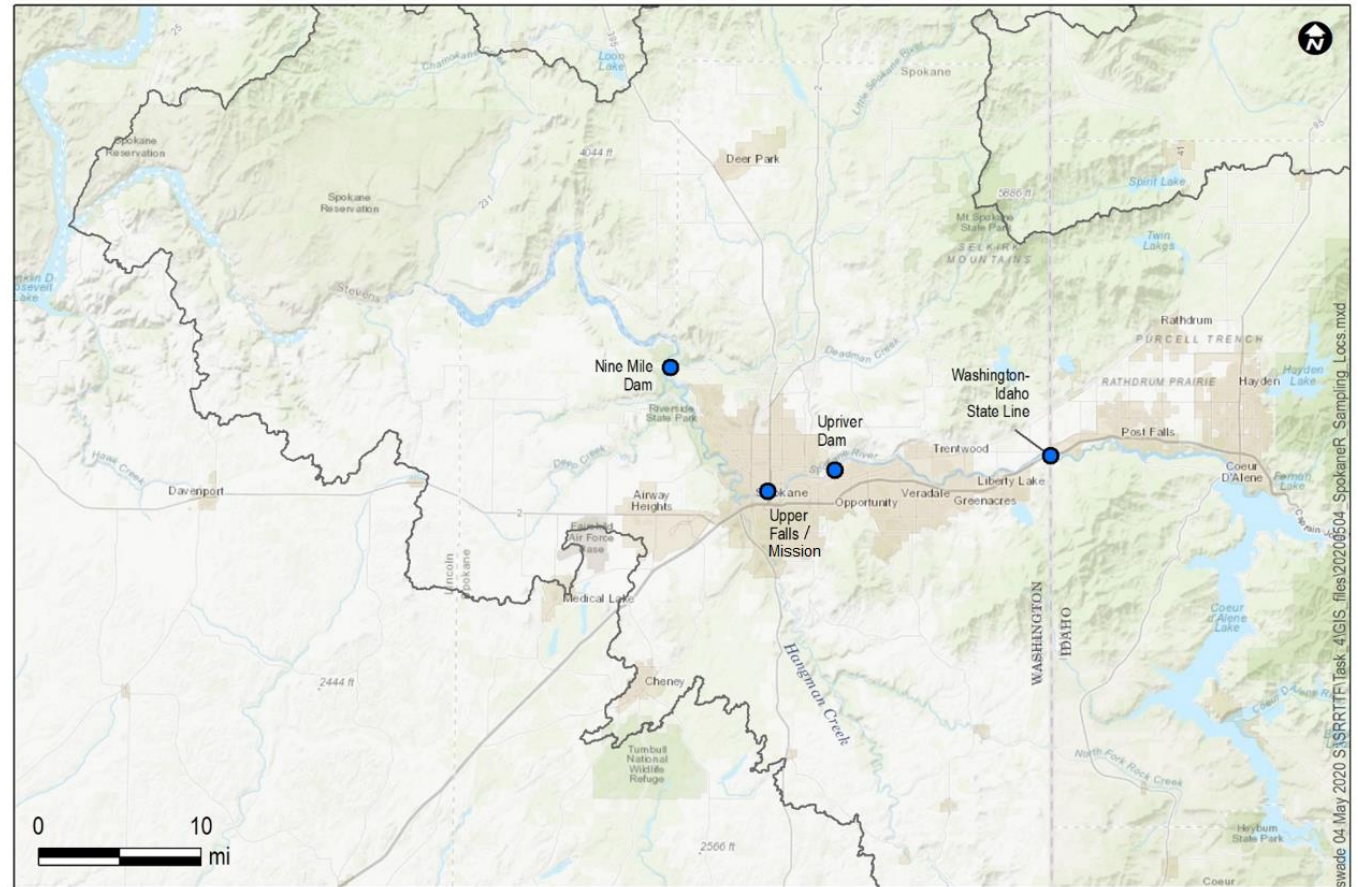
- Passive sampler
 - Low-density polyethylene tube filled with a highly purified lipid
 - PCBs from the water column diffuse through tube walls and concentrate in the lipid
- Deployed in field for ~28 days
 - Provides integrated estimate of water column PCB concentration



Pictures from Ecology (2019) SOP

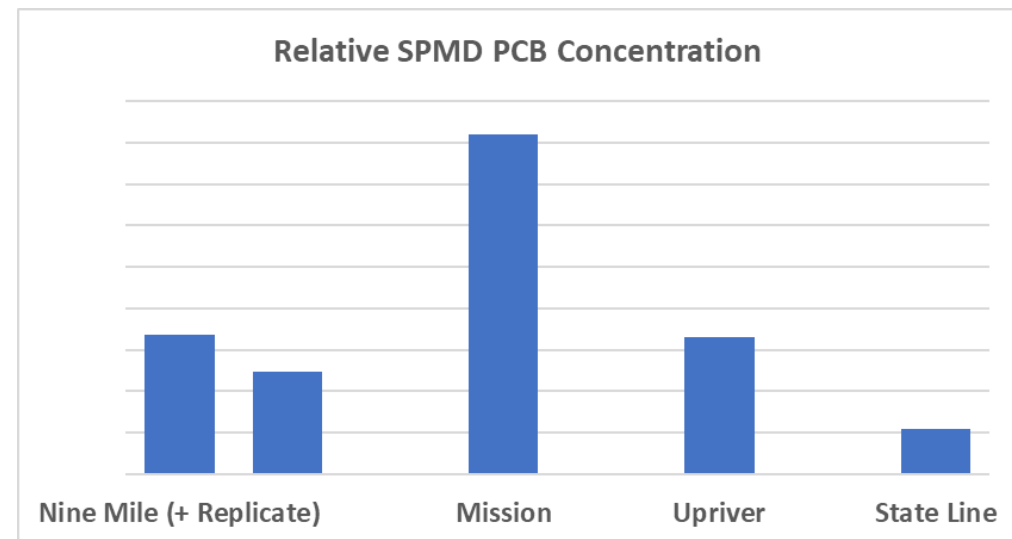
Sampling Locations

- State Line
- Upriver Dam
- Upper Falls/ Mission Reach
- Nine Mile Dam



Interim Finding

- Laboratory measures PCBs in the SPMD itself, results must be converted into water column concentration
 - Currently processing data to calculate concentrations
 - Some technical issues to be resolved at each step
- Examination of raw SPMD data implies presence of PCB load near Mission Reach
 - Signal absent further downstream
 - Consistent with biofilm monitoring



Summary

- First round of sampling completed
 - Laboratory results are being processed
 - Second round of deployment underway
- Hesitant to conclude too much on a single, non-validated data set, but:
 - Initial data are consistent with the presence of a PCB source in Mission Reach
 - Adaptive management may be needed for the program to best support long-term trend assessment