

St. Joe/St. Maries Watershed Advisory Group Meeting

May 21, 2010
St. Maries Fire Station



Agenda

- Introductions
- Idaho Water Temperature Criteria
- 2003 Temperature TMDLs
 - St. Joe
 - St. Maries
- PNV Temperature TMDLs
- Idaho's DRAFT 2010 Integrated Report
- WAG housekeeping
 - Formal WAG membership
 - WAG operating procedures
- Future WAG meetings

Introductions

- Tyson Clyne
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Idaho Department of Environmental Quality

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Idaho Water Temperature Criteria

- Protects cold water aquatic life
 - Macroinvertebrates (COLD)
 - Salmonid spawning (SS)
 - Bull Trout

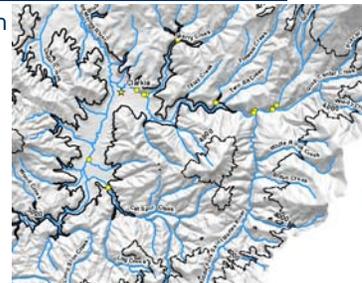


Idaho Water Temperature Criteria

- COLD
 - 22°C or Less and daily average no greater than 19°C
- SS – windows set locally
 - 4000 ft or greater = June 1 – July 31
 - 4000 – 3000 ft = May 15 – July 15
 - < 3000 ft = May 1 – July 1
 - 13°C or less max daily average no greater than 9°C

Idaho Water Temperature Criteria

- SS elevation contours

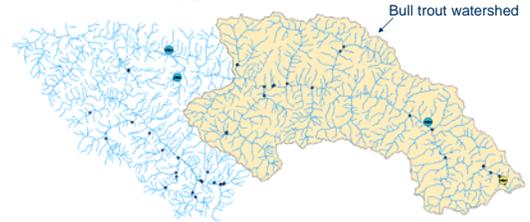


Idaho Water Temperature Criteria

- Threatened species
- Bull Trout
 - Not exceed 13°C MWMT during June, July and August for juvenile rearing
 - 9°C daily average during September and October to protect spawning
- Applicable waters identified in Idaho Bull Trout Conservation Plan

Temperature Loggers 1997-2002

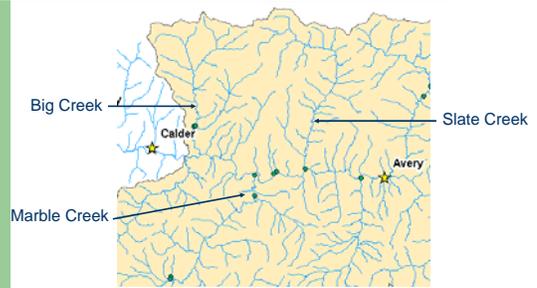
- 44 locations - DEQ



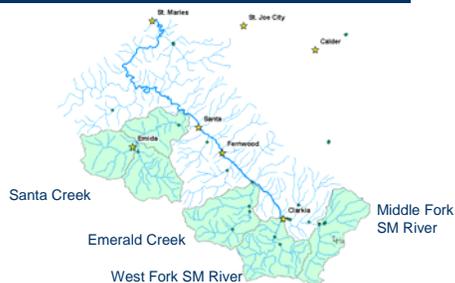
2003 St. Joe Temperature TMDL



New Temperature Watersheds



2003 St. Maries Temperature TMDL



2003 St. Maries Temperature TMDL



2003 Temperature TMDLs

- Relied on an equation
- Resulted in 100% shade in most places
- Unattainable targets

Equation (1) $MWMT = 29.1 - 0.00262 * E - 0.0849 * C$

where
 MWMT = maximum weekly maximum temperature (°C)
 E = stream reach elevation (feet)
 C = riparian canopy cover (%)

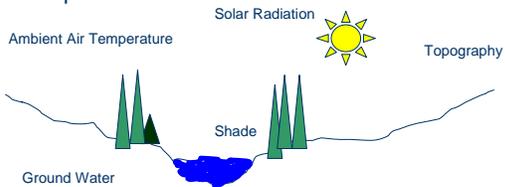
New Temperature TMDLs

- Natural Background Provision

When natural background conditions exceed any applicable water quality criteria set forth in Sections 210, 250, 251, 252, or 253, the applicable water quality criteria shall not apply...

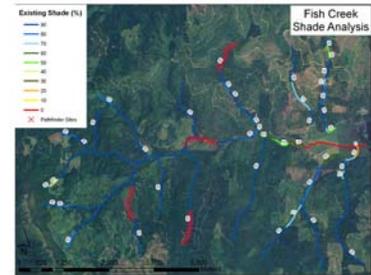
New Temperature TMDLs

- Potential Natural Vegetation (PNV)
- Full potential shade = natural stream temperatures



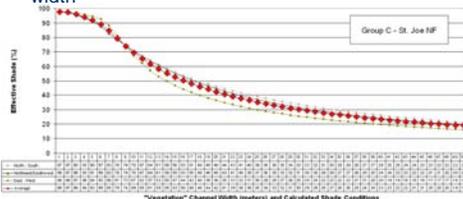
PNV Temperature TMDLs

- Estimate Existing Shade



PNV Temperature TMDLs

- Estimate Potential Shade
 - Model plant communities, shade curve, stream width



PNV Temperature TMDLs

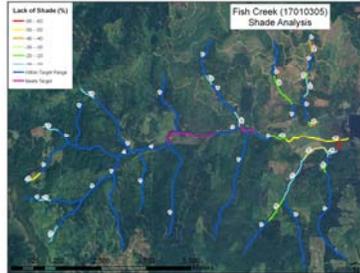
- Potential Shade – Existing Shade = TMDL
- Shade values applied to Flat Plate Collector
- Loads set as kWh/day

1 gigawatt = 1,000,000 kilowatts



PNV Temperature TMDLs

- What does this all mean?



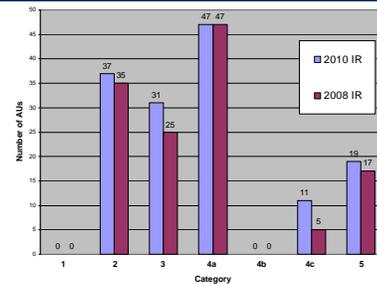
PNV Temperature TMDLs

- DEQ PNV Manual available on-line
http://www.deq.idaho.gov/water/data_reports/surface_water/monitoring/pnv_temp_tmdl_manual_revised_1009.pdf
- Link will be posted to WAG webpage

DRAFT 2010 Integrated Report

- Currently under DEQ review
- **Should** be open for public comment in July
- Basis for TMDL development
- Contains status of all waters of the state
- Approved by EPA
- Developed every 2 years

2010 DRAFT Integrated Report



Public Comment Period

- 30 day period
- Submit comments on-line or to regional office staff
- Will notify WAG when period opens

DEQ webpage: <http://www.deq.state.id.us/>

WAG Housekeeping

- Formal WAG Membership
- WAG Operating Procedures



Future Meeting

- June 18th
 - St. Maries Fire Station, 9-11am
- WAG webpage:
 - http://www.deq.idaho.gov/about/regions/st_joe_st_maries_river_wag/index.cfm