



Idaho DEQ

KOOTENAI/MOYIE WATERSHED ADVISORY GROUP

OCTOBER 23, 2024

Agenda

1. INTRODUCTIONS
2. HOUSEKEEPING
3. SELENIUM TMDL
4. TEMPERATURE DATA DISCUSSION
5. OPEN DISCUSSION
6. ADJOURN



Introductions

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WAG

Housekeeping

- INTEGRATED REPORT UPDATE
- LARGE RIVER TMDL?
- TEMPERATURE CRITERIA REVISIONS



Integrated Report WAG Consultation

- COMMENT PERIOD IS OPEN NOW!
- [HTTPS://WWW.DEQ.IDAHO.GOV/DEQ-SEEKS-COMMENT-ON-2024-INTEGRATED-REPORT/](https://www.deq.idaho.gov/deq-seeks-comment-on-2024-integrated-report/)

Selenium

The confusing metal

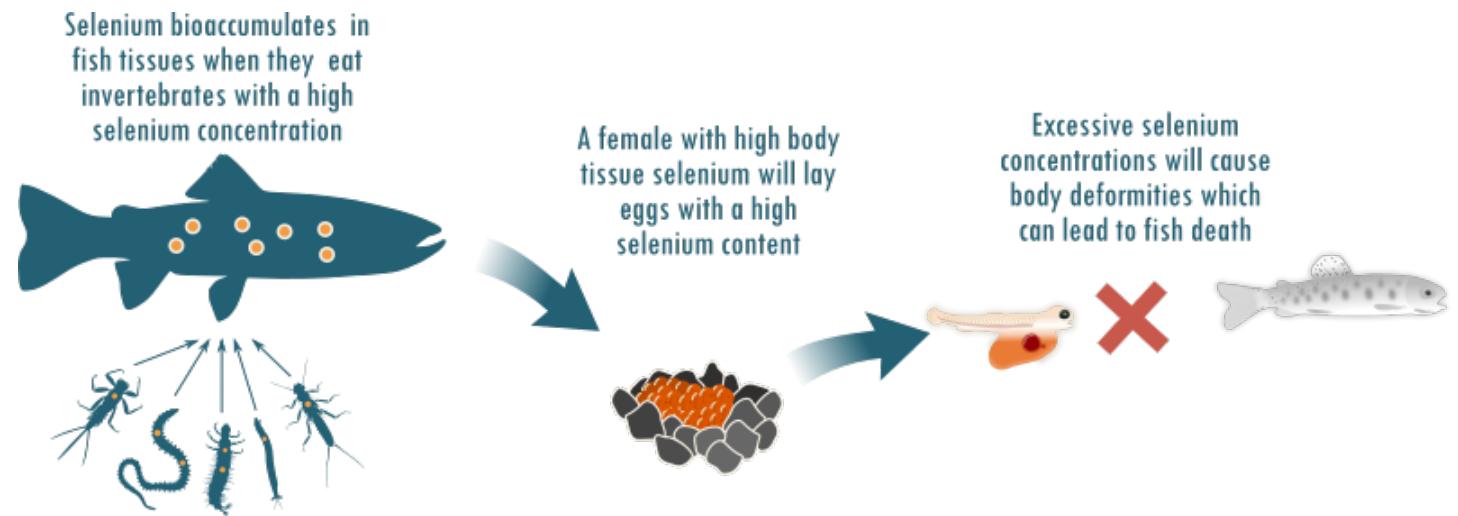
Often sold as a supplement
for people and livestock



Selenium

The Downside

- ▶ Prosecutors charge husband in the death of Moscow woman
- ▶ Angela Palermo, Moscow-Pullman Daily News, Moscow, Idaho
- ▶ Sat, November 27, 2021



Selenium

- ▶ Naturally occurring metal in very small trace amounts
- ▶ Essential for aquatic life in trace amounts
- ▶ Very toxic to wildlife in elevated concentrations
- ▶ Selenium pollution does not originate in Idaho
- ▶ <https://storymaps.arcgis.com/stories/5c8c3b33b1d04adc8157a04455e7eca1>

Current Impairment Status for the Kootenai River

- ▶ Two Kootenai River Assessment Units are 303d listed as “Not supporting” for the Cold-Water Aquatic Life Beneficial Use. Selenium was listed as a pollutant based on USGS and Kootenai Tribe of Idaho egg/ovary selenium data.
- ▶ ID17010104PN031_08 - Idaho/Montana to Moyie River
- ▶ ID17010104PN029_08 – Moyie River to Deep Creek
- ▶ <https://mapcase.deq.idaho.gov/wq2022/default.html>

Selenium

- ▶ DEQ has collected selenium data for the last three years
- ▶ Average Se concentration is 1 ug/L
- ▶ 56.0 pounds of selenium a day (rough calculation)

Future Se TMDL

- ▶ Waiting to coordinate with Montana
- ▶ EPA contractors may write the TMDL

Tributary Monitoring Results

- ▶ So far, we have not seen any tributary samples with a dissolved selenium concentration above the laboratory Detection Limit (DL) of 0.5 - ug/L.

Temperature



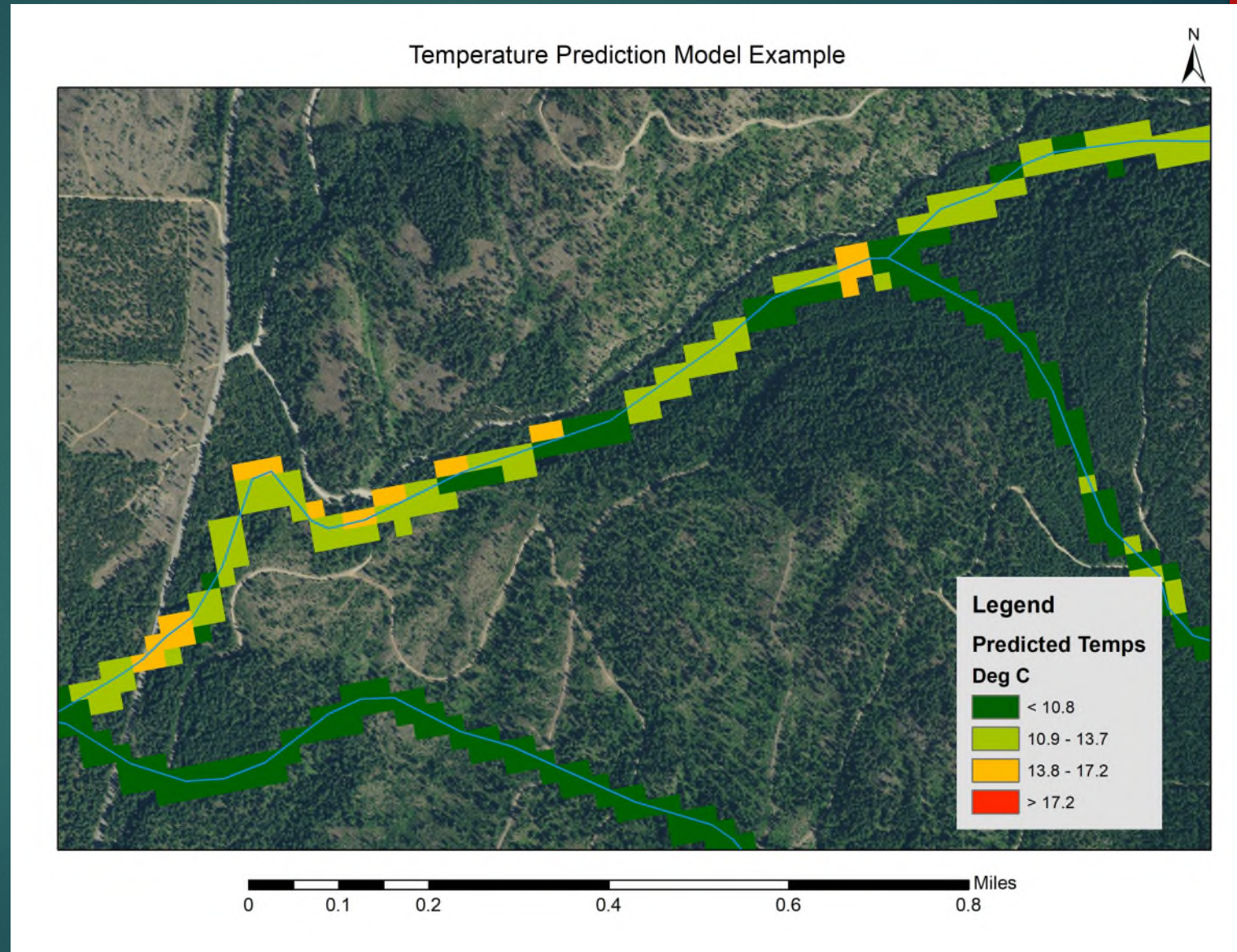
What I have been up to!

- ▶ I have been analyzing temperature data from the Kootenai/Moyie and Priest Lake basins along with Idaho Falls Regional data to determine what factors influence stream temperature.

Factors that influence Stream Temps

- ▶ Aspect
- ▶ Elevation
- ▶ Stream Order
- ▶ Gradient/morphology
- ▶ Canopy cover
- ▶ Groundwater influence
- ▶ Bankfull width

Stream Temperature prediction Model



DEQ's attempt to revise our Temperature Criteria.

- ▶ The current criteria is problematic
- ▶ DEQ is exploring the idea of trying for a new temp criteria
- ▶ May be modeled for local watersheds
- ▶ It will be a tough task!

Future Work on Temperature and Other Stream Characteristics.

- ▶ Refine my temperature prediction model and write a white paper
- ▶ Start looking at flows to see if logging influences temperature
- ▶ Start modeling sediment in the Kootenai/Moyie Watersheds

Questions or Comments





Thank you!

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