

Idaho Informed Recreation - Coeur d'Alene Basin (IIRec-CdA): A decision support tool for stakeholder education and engagement

V.A. Suchar¹, R. Lew², K. Trebitz³, A. Odell², M. Wiest¹

¹Statistical Sciences, ²Virtual Technology & Design, ³Water Resources
 University of Idaho, Moscow, ID 83844 USA

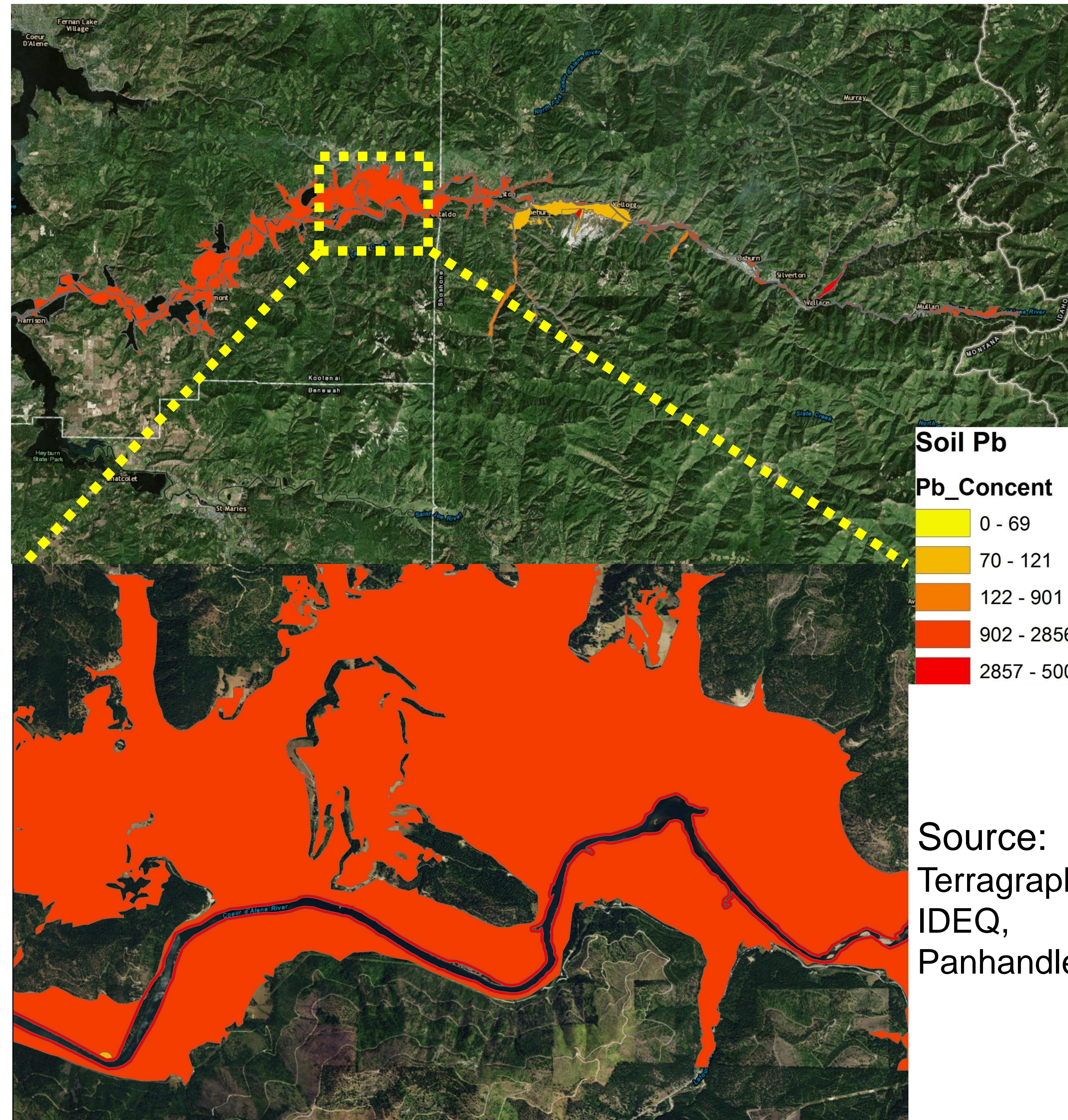
In collaboration with:

Idaho Department of Environmental Quality
 Panhandle Health
 Terragraphics

MOTIVATION

- > 4.5 million tons of mine tailings are lining the CdA River.
- Each Spring, flooding spreads these contaminants throughout adjacent floodplains, tributaries & finally into Lake CdA.
- >75 million tons of mine tailings are deposited in CdA Lake.
- >25 thousand acres of farmland are polluted with heavy metals.
- >20 miles of streams cannot sustain a reproducing fish population.
- >10 miles of tributaries have virtually no aquatic life.
- >15 thousand acres of wildlife habitat contain sediments and soils that are acutely toxic to waterfowl.

1. Extensive efforts were made to remediate the damage of ~100 years of mining and smelting activities.
2. Several areas in the CdA basin still have heavy metal levels found to be dangerous to wildlife, and human health.
3. The potential risks are extensively discussed in the scientific literature (>5000 pages), but the information is not readily accessible to the public.
4. Direct warnings about the risks associated with various recreation activities had limited success.



OBJECTIVES

- Information: available -> accessible.
- Evaluate exposure risk from recreation
- Identify area users.
- Identify type and duration of recreation activities.
- Identify if access to information influences behavior.

DECISION SUPPORT TOOL

Web application:

- Establish baseline exposure.
- Identify type, location, and duration of recreation activities.
- Outputs:
 - Blood lead level.
 - Probability of exceeding CDC threshold value.
 - Recommendations to reduce exposure risk.
- Follow-up assessment of user's activities.

FUTURE PROJECTS

