

WHAT IS THE LEGACY?

Large-scale mining impacts in the Kootenai(y) watershed

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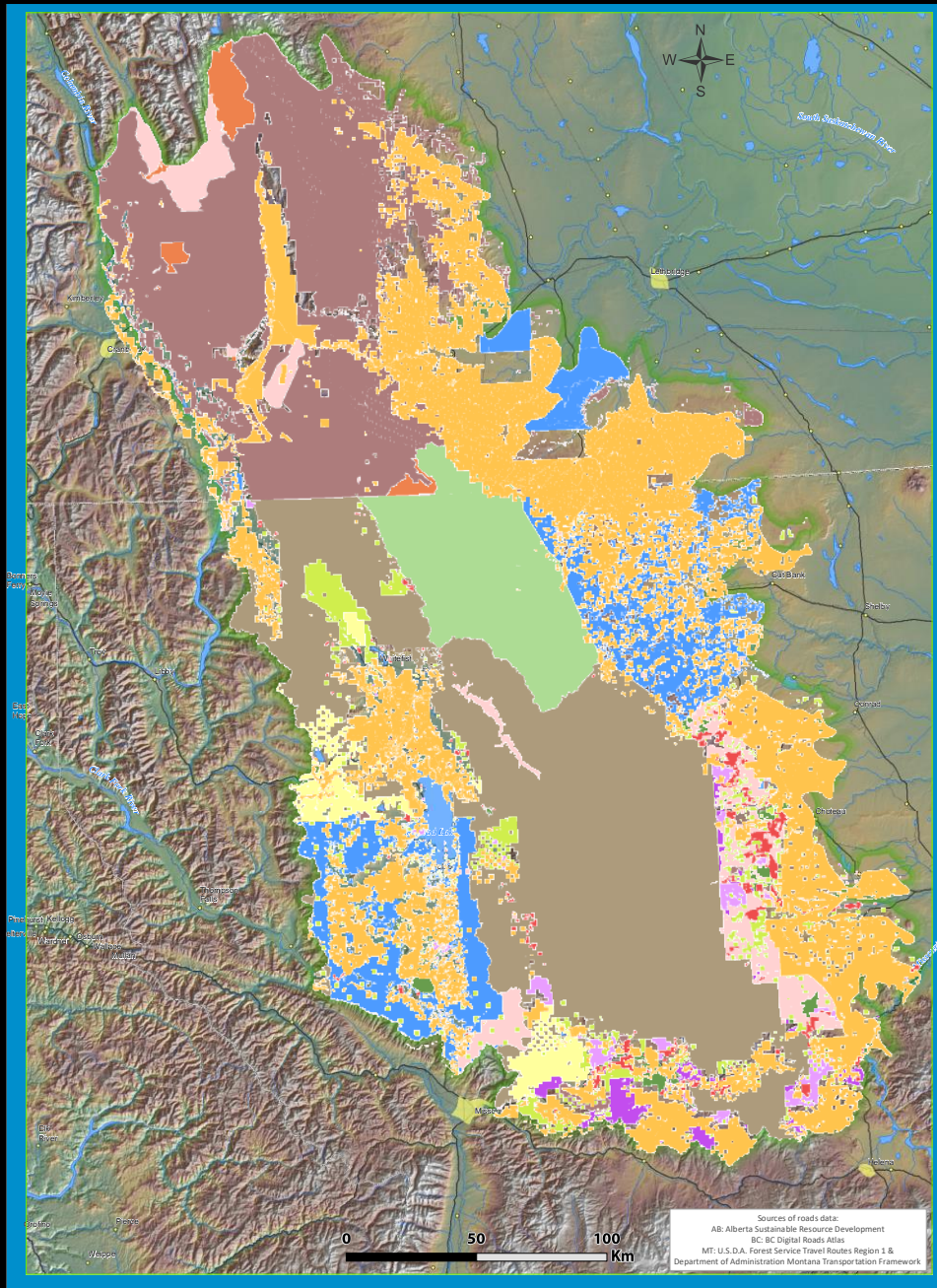
Rich Janssen Jr.

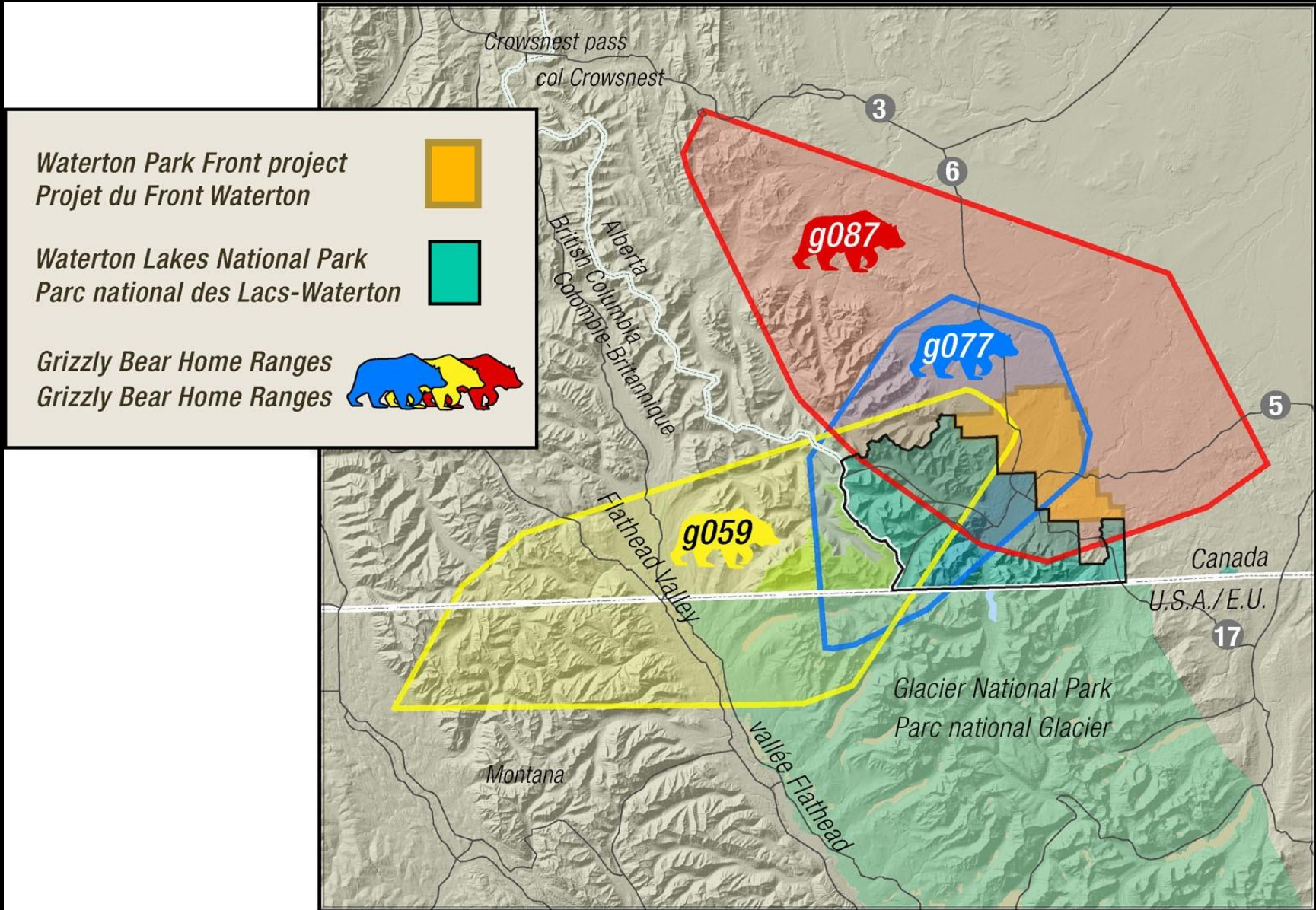
Department Head
Natural Resources
Department
Confederated Salish and
Kootenai Tribes



Ecologically Connected; Jurisdictionally Fragmented

First Nations/Tribal land
National Parks
US Bureau of Land Management
US Fish & Wildlife
US Forest Service
Federal
Provincially Protected Areas
State Trusts
Montana Fish, Wildlife, & Parks
Provincial/State
Private Conservation Land
Plum Creek Timber
Private Land



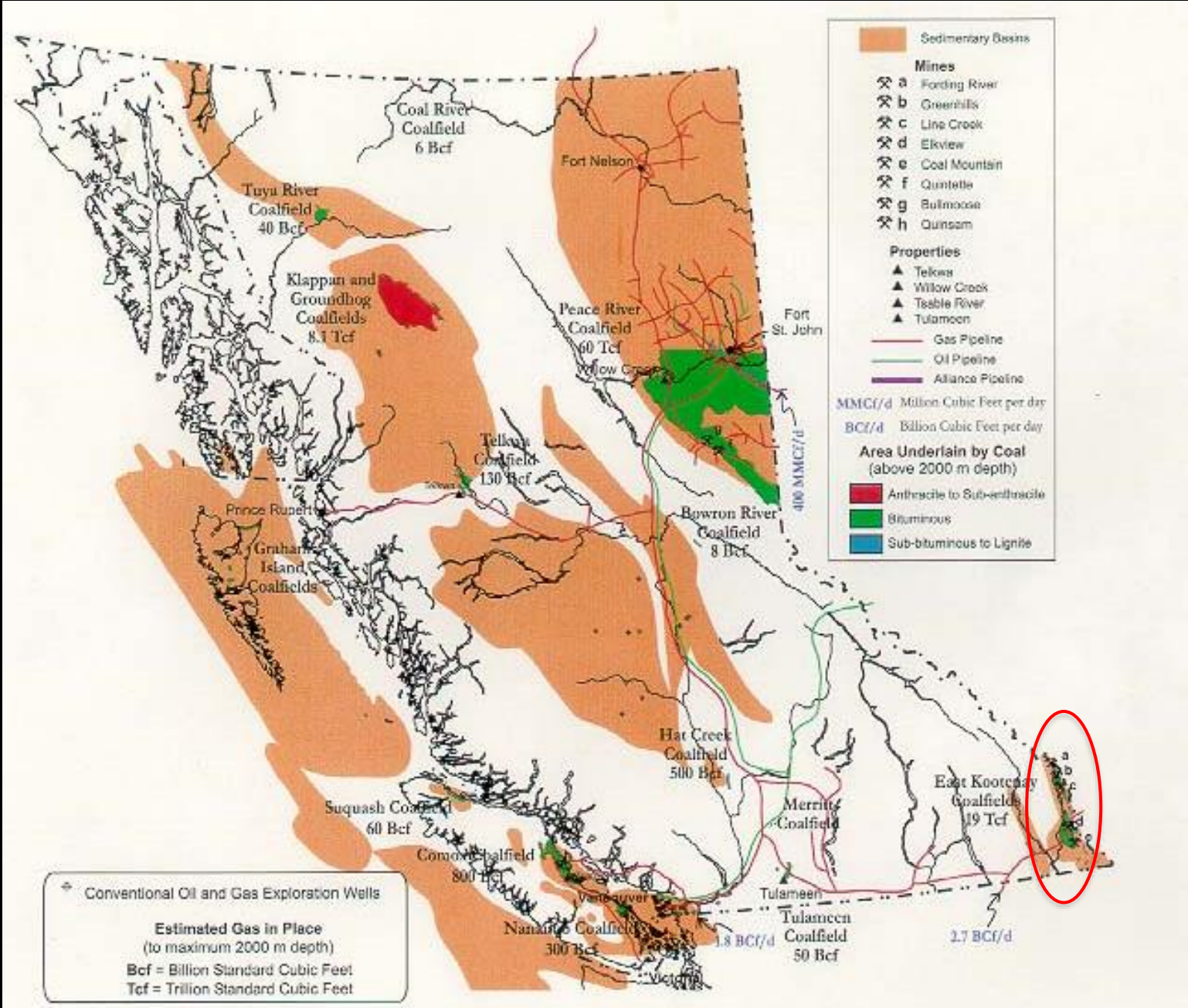




G. Lenz

Man-made boundaries divide land, waters, wildlife and people

Coal-bearing Basins of British Columbia

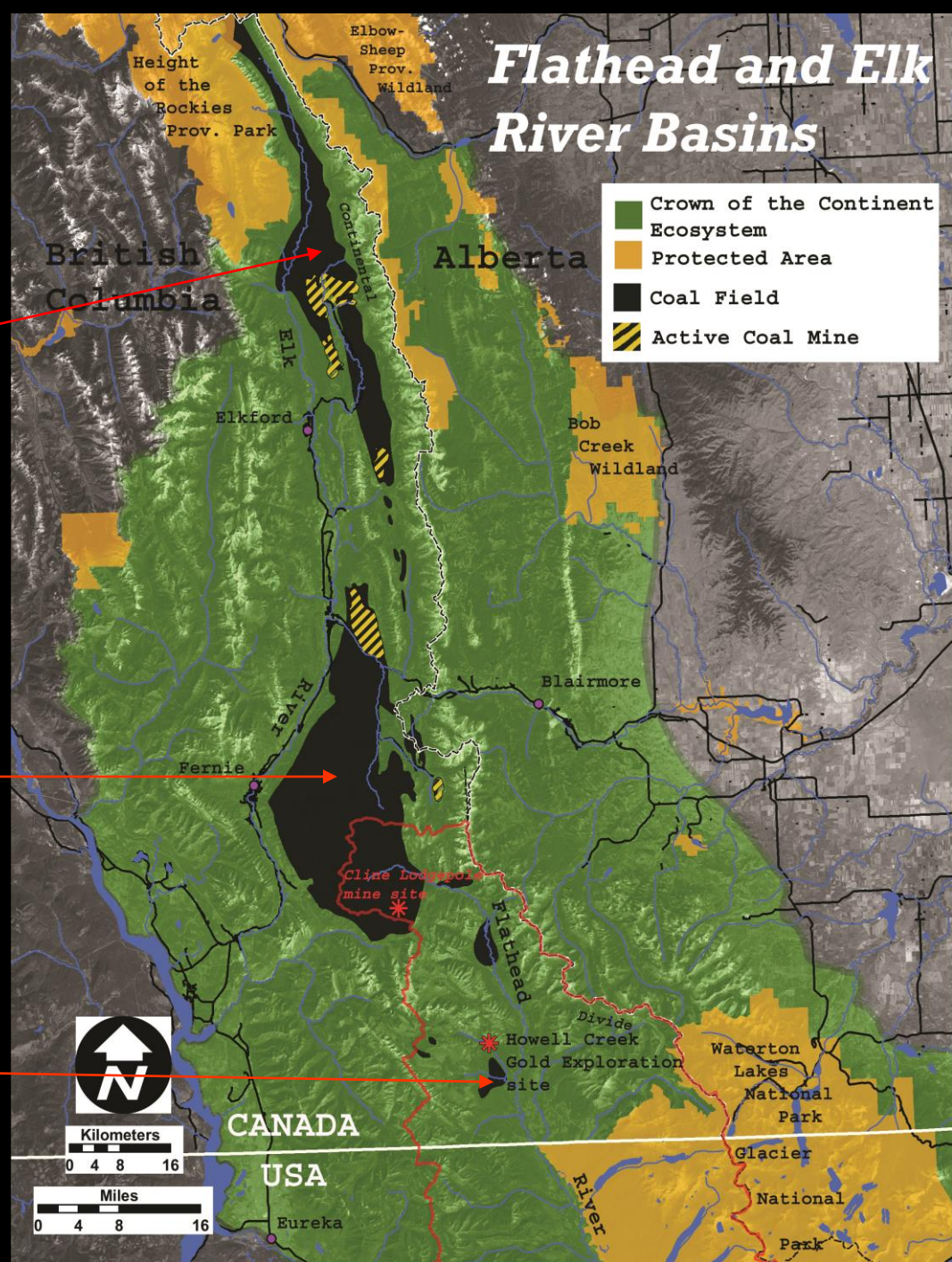


The East Kootenay Coalfields of Southeast B.C.

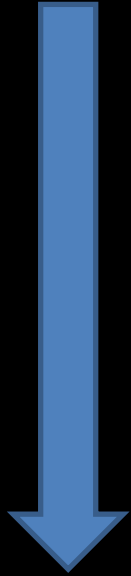
* Elk Valley Coalfield

* Crowsnest Coalfield

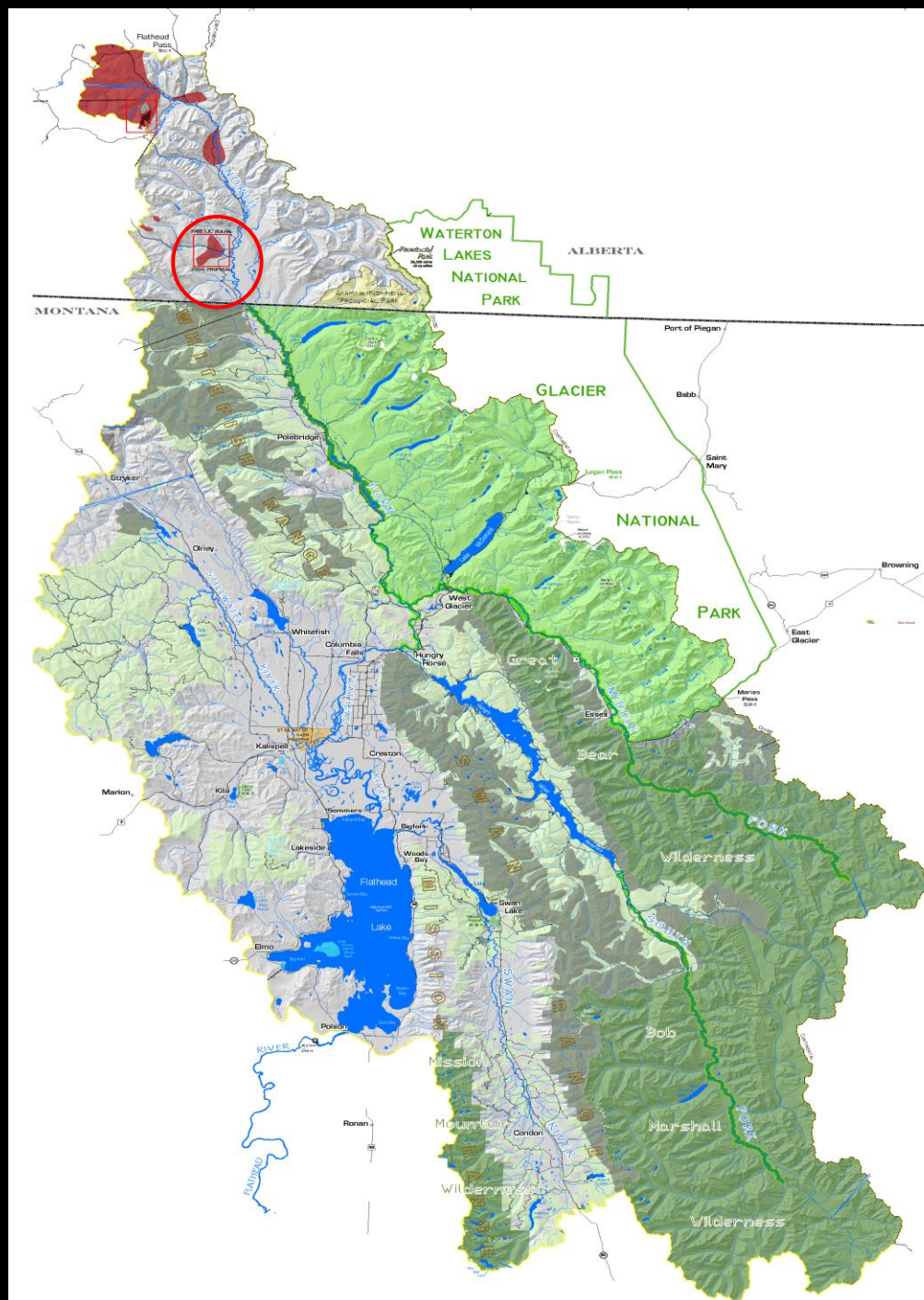
* Flathead Coalfield



Mines proposed in
the headwaters of
the Flathead River
in British Columbia,
CA



Potential
contamination
flowing into
Montana, Glacier
Park and Tribal
Territory



What is at risk? And how far downstream might the impacts reach?



Rivers are hotspots of diversity, connectivity and abundance of life ...
and the worst place to put a mine in terms of mitigating impacts

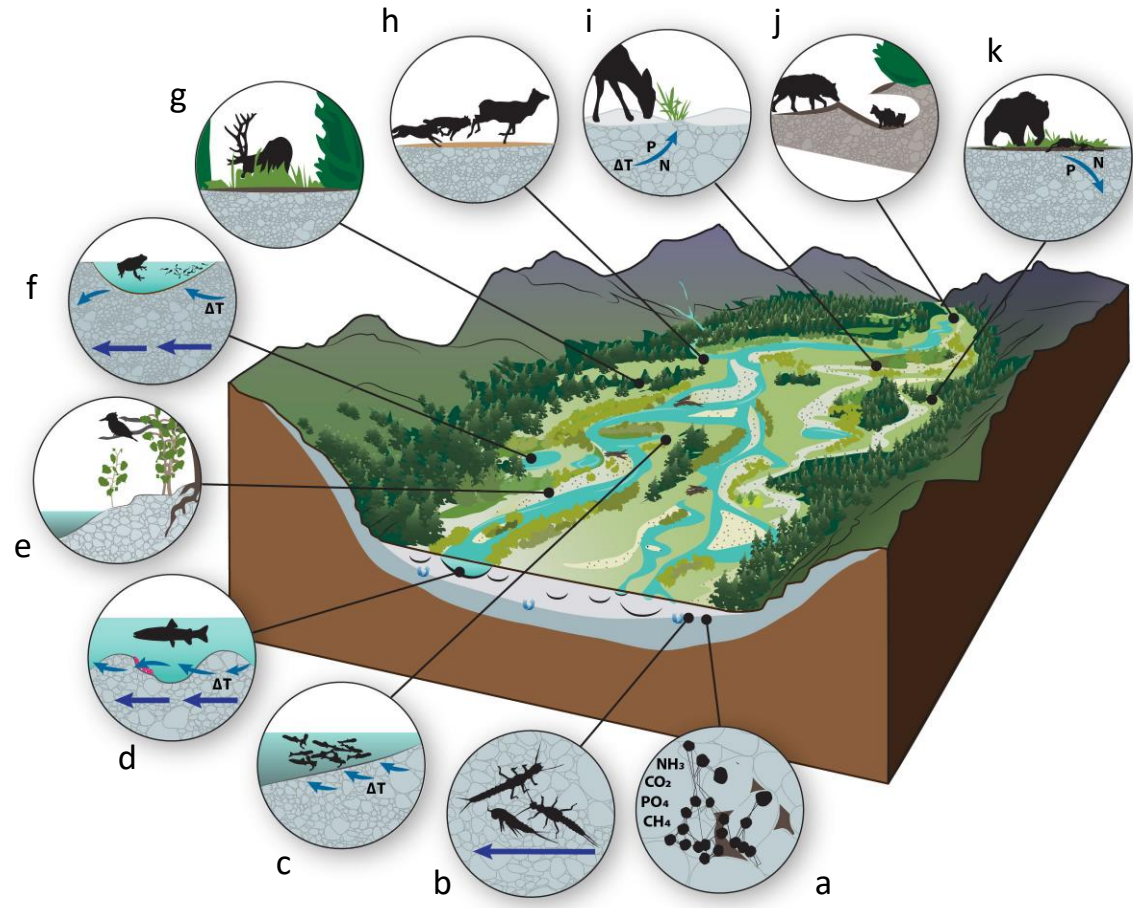


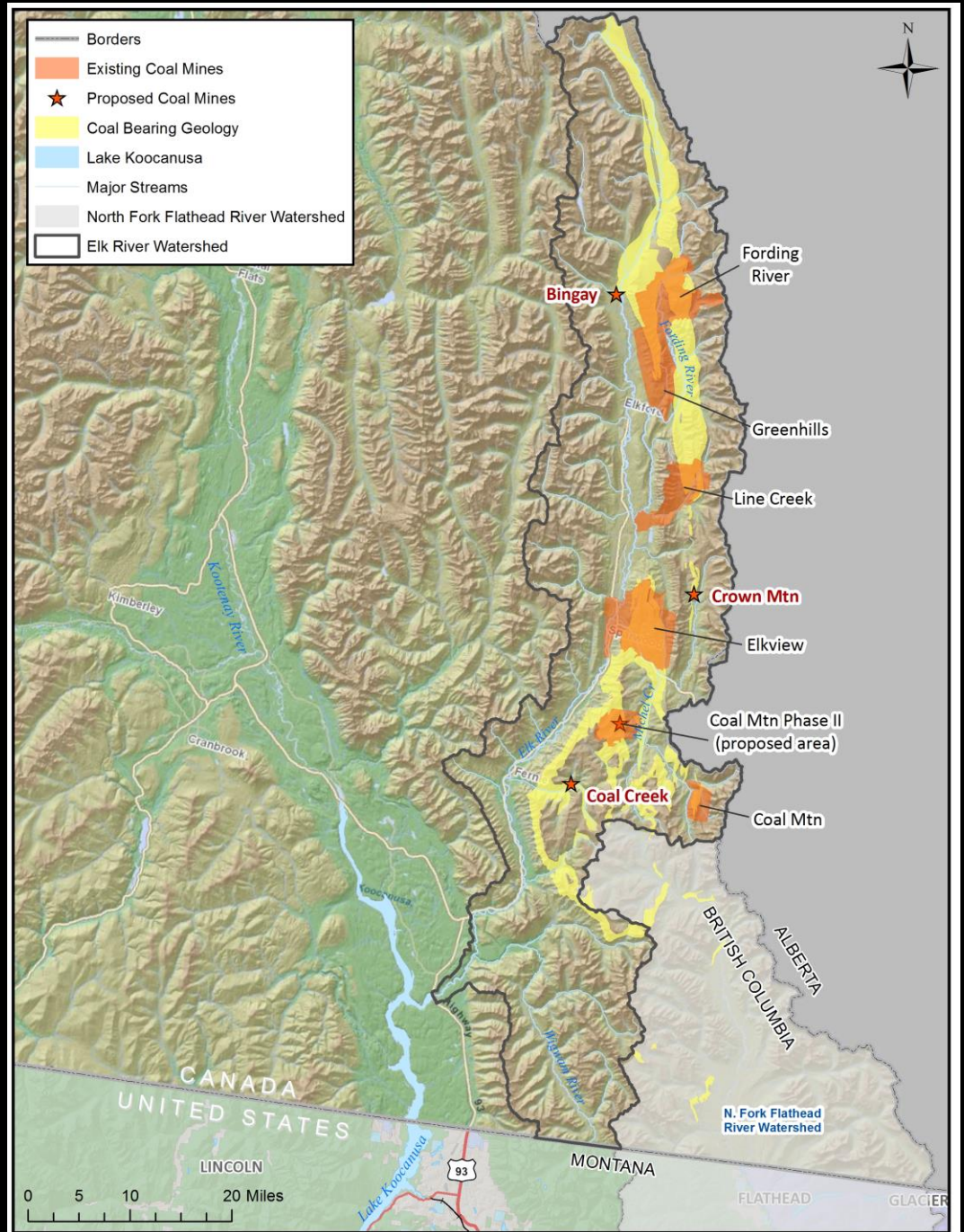
Illustration
Credit: E.
Harrington

*EA's and permitting don't evaluate impacts at the watershed scale

*Indigenous peoples, rivers, fish and wildlife don't recognize political boundaries

*Undertook independent data collection in the Flathead to evaluate the impacts of the proposed mine





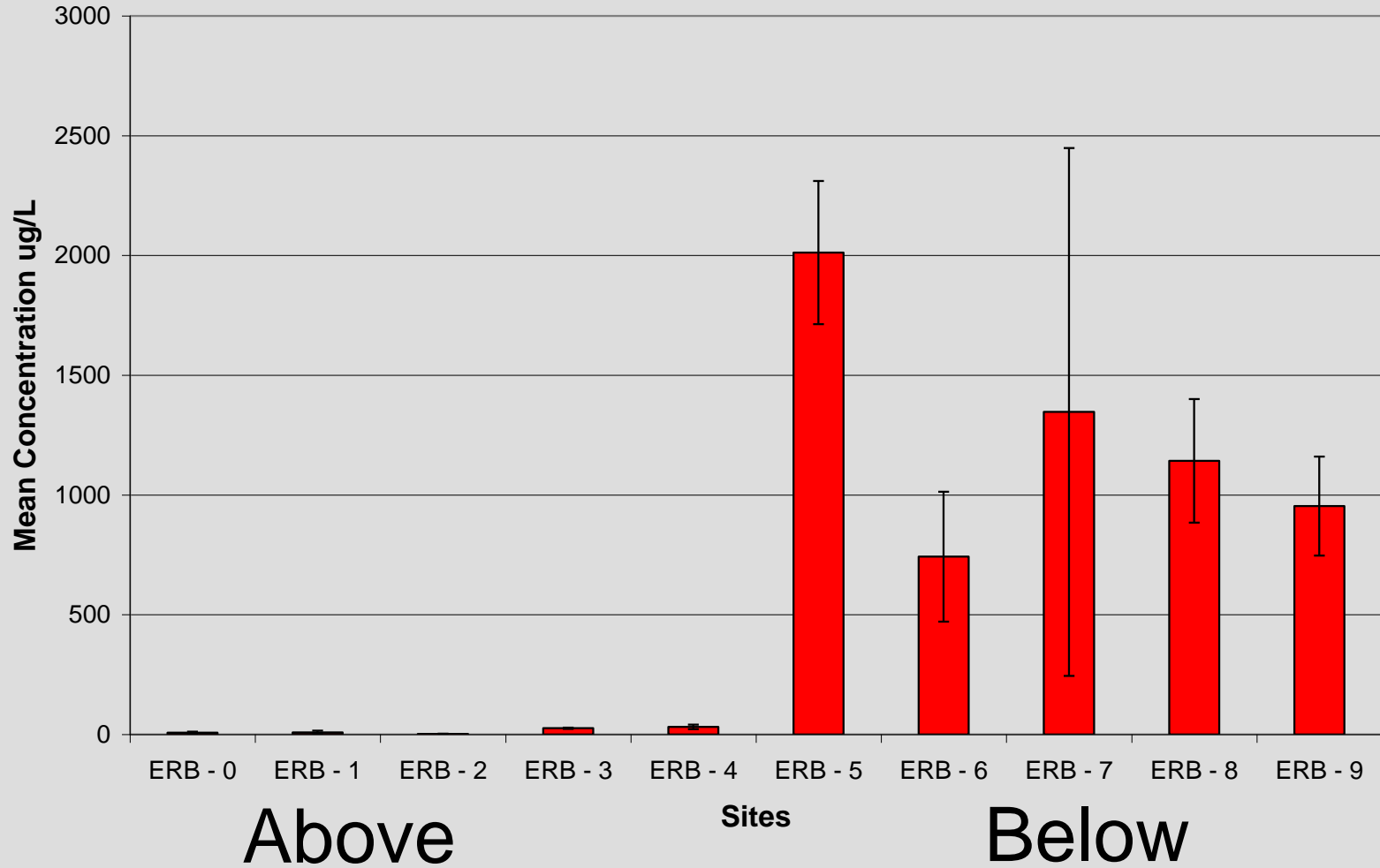


Data Collection Efforts 2005-2011

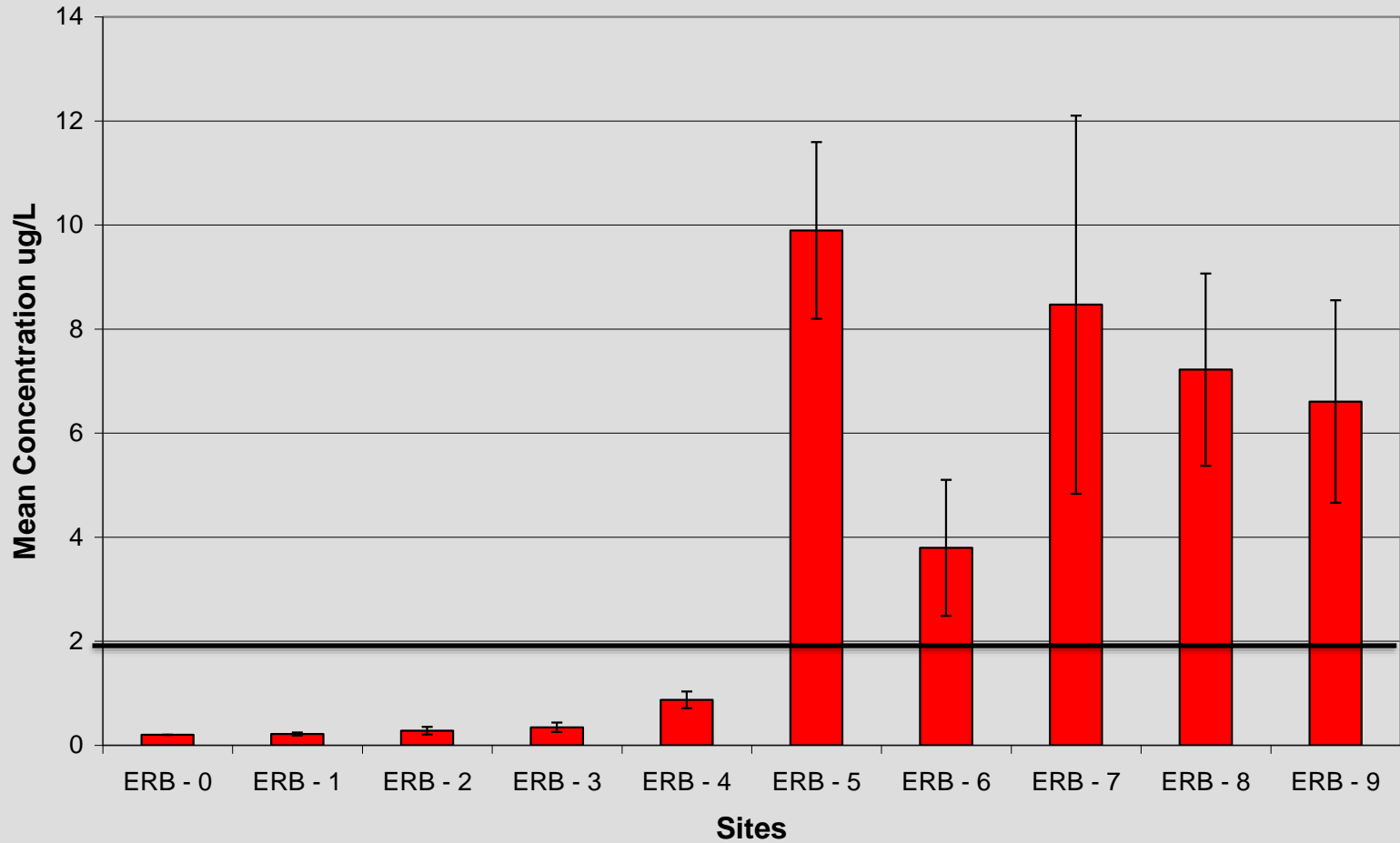
- Water Quality
- Fisheries
- Aquatic Life



Nitrate Nitrogen (NO_3) Above and Below the Elk Valley Mines



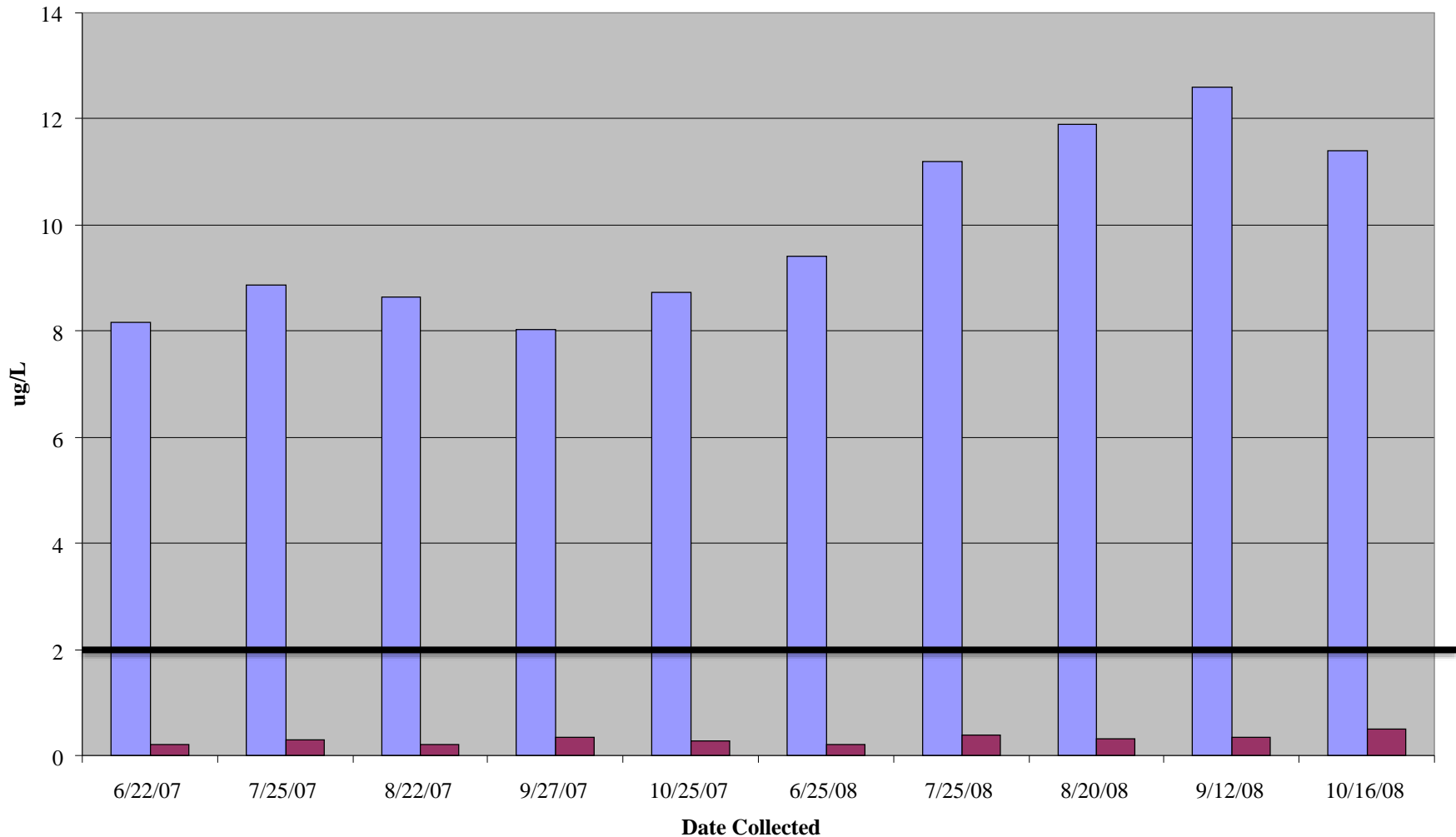
Selenium (Se) Above and Below the Elk Valley Mines



Above

Below

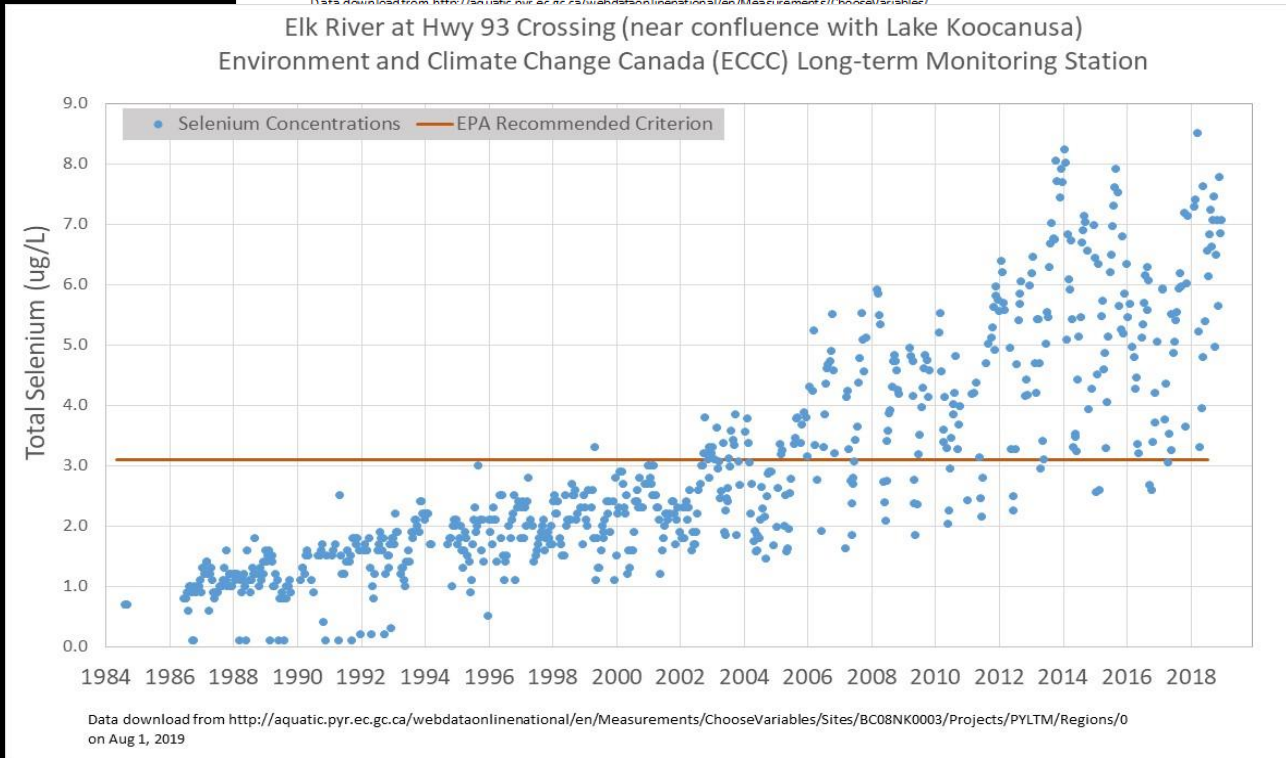
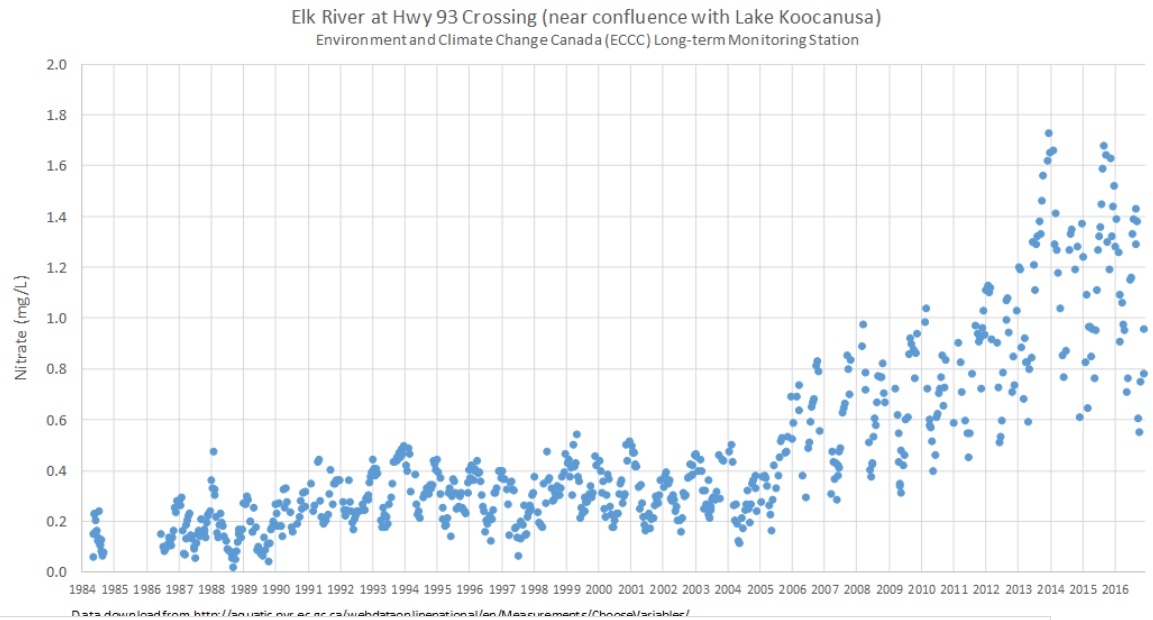
Selenium in Elk Tributaries Draining the Mines versus Baseline in the Flathead



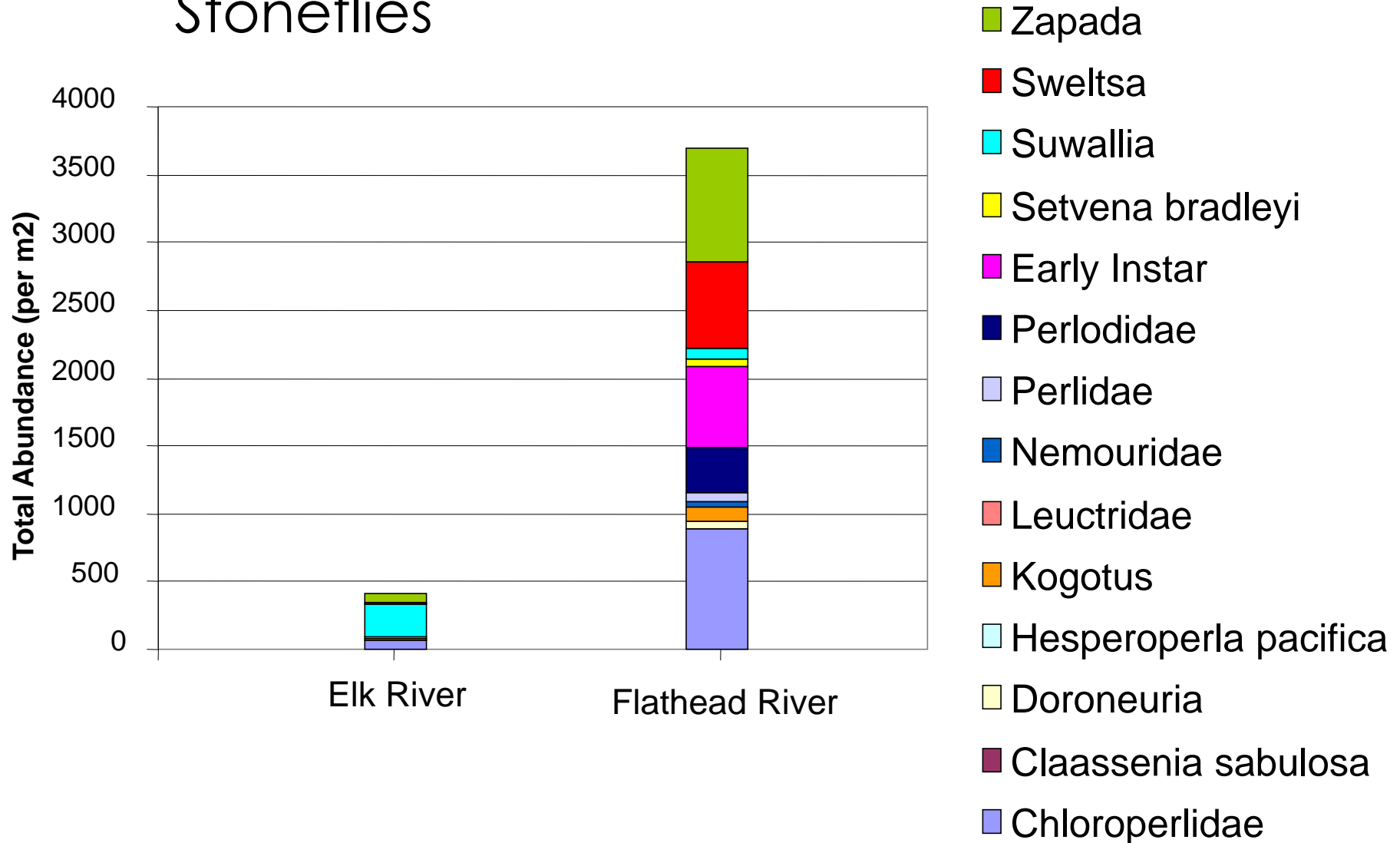
■ Corbin Creek ■ Foisey Creek @ Flathead River, North Fork

Impacts to Water

- Coal mining activities since the 1900's, with shift towards strip mining in the 1960's
- Leaching of selenium, nitrates, sulfates, and other contaminants.

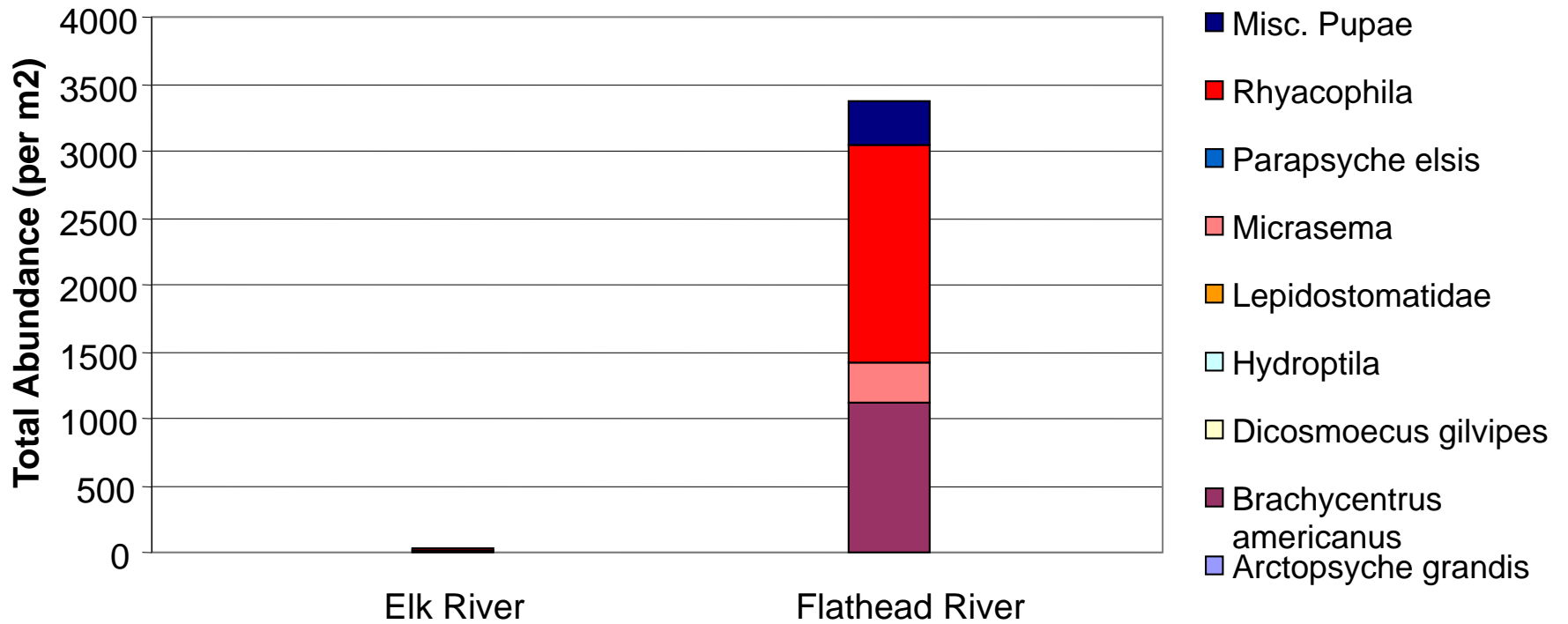


Stoneflies



Composition of the Order Plecoptera

Caddisflies



Composition of the Order Trichoptera

Aquatic Life

- Changes in aquatic community structure
- Decreases in diversity and abundance



Caddisfly - Trichoptera



NABS (www.benthos.org)

Stonefly - Plecoptera



Mayfly - Ephemeroptera

B.C. – MT Memorandum of Understanding and Cooperation

Memorandum of Understanding and Cooperation

ENVIRONMENTAL PROTECTION, CLIMATE ACTION AND ENERGY

between

The Province of British Columbia

and

The State of Montana



THE PROVINCE OF BRITISH COLUMBIA AND THE STATE OF MONTANA,

Sharing a common border and desiring to renew and deepen our long-standing relationship of friendship and trust;

Acting on the obligation of our *Environmental Cooperation Arrangement of 2003* "to identify, coordinate and promote mutual efforts to ensure the protection, conservation and enhancement of our shared environment for the benefit of current and future generations" and to "enter into specific arrangements necessary to effectively address shared environmental goals";

Recognizing the mutual commitment of British Columbia and Montana to sustaining environmental values in the transboundary Flathead River Basin, including its existing high water quality and aquatic biodiversity, and threatened and endangered species and species of special concern listed under United States and Canadian law;

Recognizing that the transboundary Flathead River Basin includes within its area Glacier National Park and Biosphere Reserve which is part of the world's first International Peace Park and a World Heritage Site, and that this unique area merits special protection in particular from risks posed by drilling, mining and other commercial mineral and oil and gas developments;

Recognizing that the transboundary region is also an important wildlife corridor that is home to the highest density of large and mid-sized carnivores and the highest diversity of vascular plant species in the United States, and offers superior opportunities to study, document and preserve species biodiversity as changing climate conditions and shrinking glaciers present adaptation challenges;

Recognizing that the Flathead River Basin in British Columbia is located within that portion of the Ktunaxa territory known as Qanna district; that the Ktunaxa have a documented historical connection to the Flathead, have used and continue to use the Flathead for hunting, fishing, trapping, gathering, recreation and as a travel corridor, and hold an important cultural and historical connection to the landscape; that the Ktunaxa exercise aboriginal rights recognized in Canada's *Constitution Act, 1982*, within this portion of the Ktunaxa territory; that through the New Relationship with First Nations, British Columbia is seeking to engage meaningfully with Ktunaxa Nation in a government-to-government relationship; that Ktunaxa Nation is engaged in treaty negotiations with Canada and British Columbia which may result in Ktunaxa Nation owning lands and having law-making powers in relation to lands within the Flathead River Basin in Canada; and that this Memorandum of Understanding and Cooperation (MOU) and Ktunaxa Nation's support for and participation in activities under this MOU is without prejudice to treaty negotiations with Ktunaxa Nation or any other agreements that may be negotiated between Ktunaxa Nation and British Columbia;

Recognizing that the Flathead River flows through the exterior boundaries of the Flathead Reservation and aboriginal territories, and that a large portion of Flathead Lake lies within the exterior boundaries of the Flathead Reservation, and that Flathead Lake is the largest freshwater lake in the western coterminous United States and one of the cleanest in the world; and that the Salish, Kootenai, and Pend d'Oreille peoples highly value this land and these waters and their quality and purity, and that these Indigenous Peoples have effectively managed these waters and lands for thousands of years previously in a sustainable and non-polluting manner;

Recognizing that the Flathead River Basin is the subject of uses that are important to local residents, and that for approximately 70 years the British Columbia Flathead River Valley has been successfully managed for logging, recreation, guiding and outfitting, and trapping, that has maintained the healthy and diverse eco-system that exists today;

Concerned that climate change is having and will have severe environmental and economic impacts on our shared waters, ecosystems, protected areas and jurisdictions in coming decades, and *agreed* therefore that action now is both a moral and economic imperative;

Committed to partnering to capture for our citizens the new employment and investment opportunities that action on climate change will create in the areas of renewable and low carbon energy, energy conservation, and clean transportation;

Agreed that the full engagement of our provincial and state governments with our respective federal governments, Ktunaxa Nation, Confederated Salish and Kootenai Tribes, and local governments and the support of local residents and citizens is crucial to acting on these concerns and enhancing a collaborative conservation ethic; and

Committed to sharing information and communicating regularly to improve understanding, prevent degradation of water quality and reach mutually beneficial outcomes on environmental protection, climate action and clean and renewable energy;

NOW THEREFORE DESIRE TO ENTER INTO THIS MEMORANDUM OF UNDERSTANDING AND COOPERATION AND HEREBY AGREE AS FOLLOWS:

Environmental Protection

I. British Columbia and Montana commit to work together to:

A. Remove mining, oil and gas, and coal development as permissible land uses in the Flathead River Basin.
British Columbia and Montana, the latter working with the United States as necessary, will implement measures necessary to prohibit the exploration for and development of mining, oil and gas, and coal in the British Columbia Flathead and the Montana North Fork Flathead River Basin, such action to be completed by July 2010, and subject to agreement on the equitable disposition of the financial implications of this action for the Province of British Columbia respecting existing mining and coal tenure holders.

B. Cooperate on fish and wildlife management.
In collaboration with Ktunaxa Nation and Confederated Salish and Kootenai Tribes, develop baseline resource information, identify potential opportunities to collaborate on fish and wildlife management, and, where possible, coordinate provincial and state management activities in the transboundary region. Areas for consideration include: noxious weed management; management of alien invasive species; and management efforts related to specific fish and wildlife.

C. Collaborate on environmental assessment of any project of cross border significance that has potential to degrade land or water resources.
On a reciprocal basis, provide for on-going involvement of interested federal, provincial, state, and First Nations or American Indian Tribes and their designated scientists, in environmental assessments triggered under provincial or state law or regulation with respect to any development in the British Columbia and Montana transboundary area which holds potential to cause degradation of water quality or land resources, as follows:

- British Columbia will invite one or more representatives from state, federal and tribal governmental agencies, as appropriate, to participate in Working Groups established for its environmental assessments. Appropriate agencies may include the Montana Departments of Environmental Quality, Fish, Wildlife and Parks, and Natural Resources and Conservation, and the United States Environmental Protection Agency and Department of the Interior, and the Confederated Salish and Kootenai Tribes.
- Montana will invite one or more representatives from provincial, federal and Ktunaxa Nation governmental agencies to participate in its environmental assessments. Appropriate agencies may include the British Columbia, Ministry of Environment, Ministry of Forests and Range, Integrated Land Management Bureau, Ministry of Agriculture and Lands and Ministry of Energy, Mines and Petroleum Resources (or such successor Ministries bearing such responsibilities), and Ktunaxa Nation Land and Resources Council.

D. Share information proactively.

Share information proactively, subject to all relevant laws and regulations, exchange authorizations, permits, approvals, licenses, tenders and draft planning documents on proposed projects that have potential cross-border, wildlife or water quality impacts; and develop early notification procedures to identify problems or sources of concern to residents, First Nations, Tribes, or governmental entities in transboundary areas.

E. Collaborate in responding to emergencies.

Establish procedures to cooperatively respond to emergencies that have the potential for environmental harm, especially in transboundary areas.

Climate Action

II. British Columbia and Montana commit to work together to:

A. Facilitate adaptation to climate change.

Build regional capacity to understand and address the challenges posed by climate change to Western North American jurisdictions by enhancing and coordinating climate monitoring networks, regional centers of applied climate science and regional emergency planning within our jurisdictions.

B. Promote a wood building culture for climate action.

Recognizing that a sustainable forest management strategy aimed at both increasing forest stocks and producing an annual sustained yield of timber for wood construction will generate the largest sustained carbon mitigation and economic benefits, enable enhanced building technologies in structural wood designs for residential and industrial construction and wood products in interior and exterior finishing by seeking and supporting appropriate amendments to building codes and encouraging the use of wood in public leasing and public building projects.

C. Measure progress in reducing greenhouse gas emissions.

Participate in The Climate Registry, a collaboration between states, provinces and Tribes aimed at developing and managing a common greenhouse gas emissions reporting system with high integrity that will provide an accurate, complete, consistent, transparent and verified set of greenhouse gas emissions data from reporting entities, supported by a robust accounting and verification infrastructure.

D. Reduce greenhouse gas emissions.

British Columbia and Montana are signatories to the regional goal set by the Western Climate Initiative of reducing greenhouse gas emissions to 15 percent below 2005 levels by 2020, as well as to ambitious individual provincial and state goals for reducing greenhouse gas emissions by 2020 of 33 percent below 2007 levels by British Columbia and to 1990 levels by 2020 for Montana.

Renewable and Low Carbon Energy

III. British Columbia and Montana commit to work together to:

A. Pursue cooperative clean and renewable transboundary energy policies.

Support and seek adoption of cooperative transboundary approaches to creating more renewable and low carbon energy development in western and continental North America including hydropower, solar, wind, geothermal, biomass, and tidal/wave energy.

B. Harmonize definitions of low impact renewable resources.

Seek and support common definitions of renewable and low carbon resources in state, provincial and federal legislation and regulations that facilitate trading of renewable energy from hydropower, solar, wind, geothermal, biomass, and tidal/wave energy between all jurisdictions within western and continental North America.

C. Support the Western Renewable Energy Zones (WREZ) Project.

Collaborate to ensure the cost-effective and environmentally sensitive development and transmission of renewable and low carbon energy through participation in the Western Governors' Association Western Renewable Energy Zones (WREZ) Project.

D. Encourage a "Conservation First" Utility Framework.

Encourage electricity and natural gas utilities to undertake comprehensive conservation potential studies and set goals for implementing demand-side management (DSM) programs. Utilities will be encouraged to prioritize DSM measures to address energy demand growth. British Columbia and Montana will share information on DSM program performance and will cooperate on the development of harmonized approaches for measurement and evaluation.

E. Leverage energy efficiency through building codes.

Share information on energy performance standards in building codes, with a view to developing collaborative strategies to improve energy efficiency requirements.

F. Enable clean transportation solutions.

Support policies, and share information on standards and best practices to promote biofuels, natural gas, hydrogen, and electricity as transportation fuels, and promote consistent roadside signage for alternative fuel stations.

Partnerships

British Columbia and Montana commit to work together with Ktunaxa Nation, Confederated Salish and Kootenai Tribes, federal and local governments, and with leaders from business, environmental advocates, and scientists to assist with the accomplishment of these goals.

Definitions

For further certainty, "mining" as referred to in this MOU does not include small quarry or sand or gravel operations where the area of activity is two hectares or less, and not more than 20,000 tonnes per annum is removed or be removed.

Responsible Parties

The Premier of British Columbia and the Governor of Montana are responsible for oversight and implementation of this MOU.

A. The Intergovernmental Relations Secretariat, a branch of the Office of the Premier, is designated lead entity for British Columbia. The Secretariat will act as the lead and coordinating entity, and will call upon provincial agencies for implementation.

B. The Governor's Office is designated the lead entity for Montana. The Governor's Office will act as the lead and coordinating entity, and will call upon state agencies for implementation.

Term and Amendment

This Memorandum of Understanding and Cooperation is effective when signed by both the Premier and the Governor and as specifically provided for in this MOU. It may be amended at any time by agreement between the parties and may be terminated by either party upon one year written notice or the other.

AGREED as to form and content and signed and dated in two (2) duplicate originals in
Vancouver, British Columbia this 18th day of February 2010.

GORDON CAMPBELL
Premier of British Columbia

BRIAN SCHWEITZER
Governor of Montana

WITNESSED this 18th day of February, 2010:

KATHRYN TENESEE
Chair of Ktunaxa Nation Council

MICHEL KENMILLE
Council Member, Confederated Salish
and Kootenai Tribes

BC - Montana Memorandum of Understanding February, 2010

A new partnership with Montana will sustain the environmental values in the Flathead River Basin in a manner consistent with current forestry, recreation, guide outfitting and trapping uses.

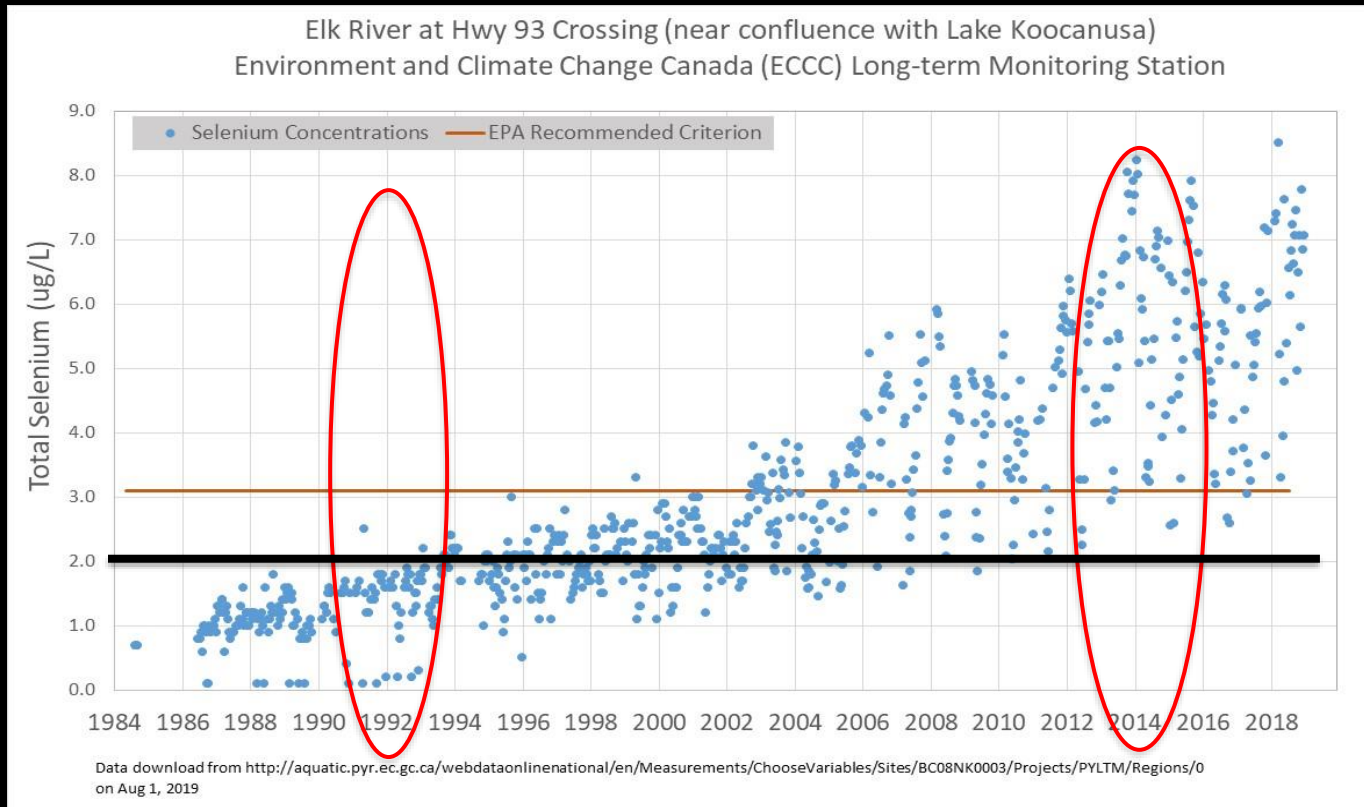
It will identify permissible land uses and establish new collaborative approaches to transboundary issues.

Mining, oil and gas development and coalbed gas extraction will not be permitted in British Columbia's Flathead Valley.



Water Quality Trend for Total Selenium in the Elk River; 1984-2015

2 ug/L = BC threshold for protection of aquatic life

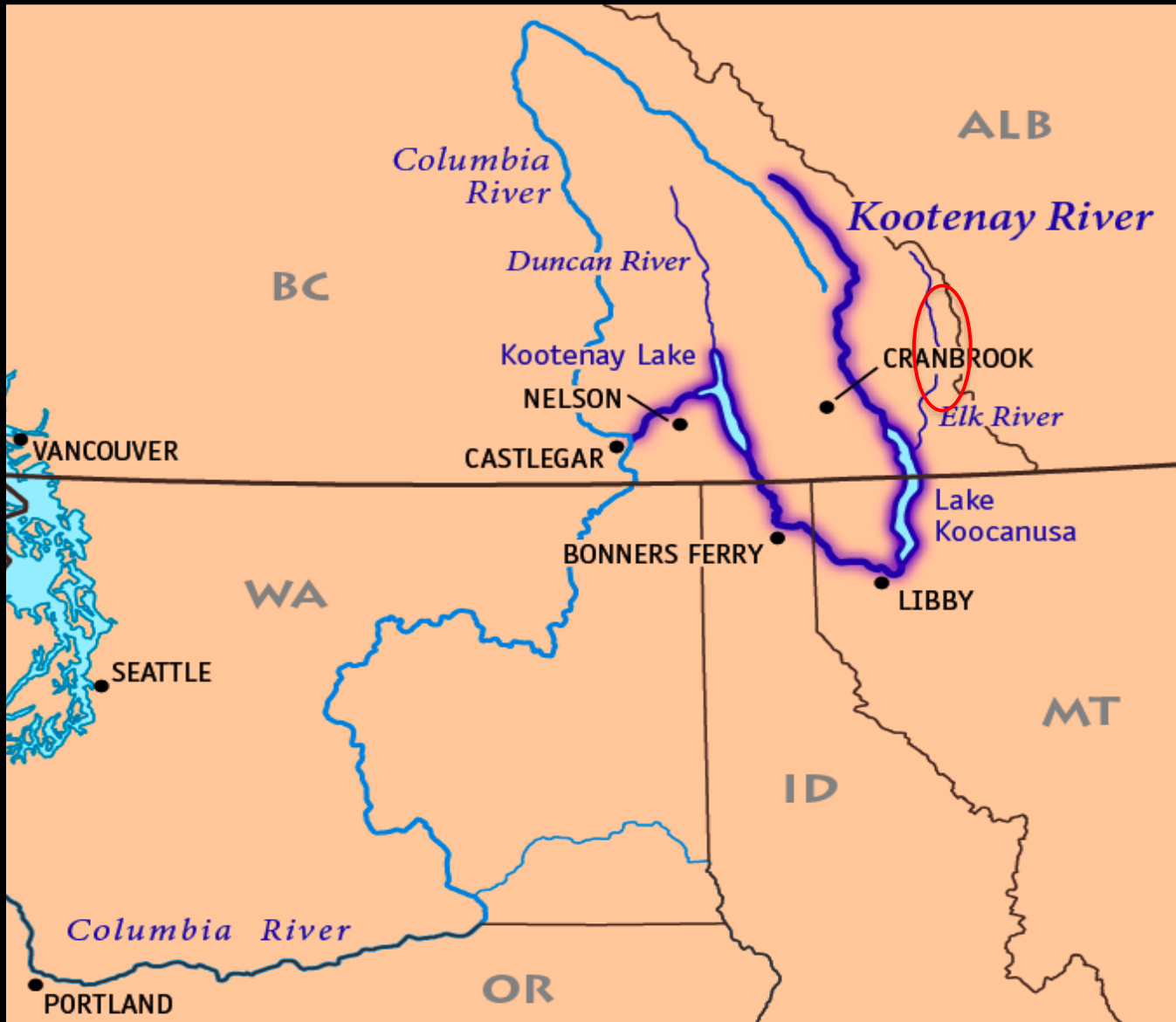


Selenium



- Bioaccumulates in fish and wildlife
- Toxic at low concentrations
- Results in physical deformities and reproductive failure (Lemly, 2002)
- 'Invisible contaminant'

Transboundary Kootenai(y) Watershed



- Entirely within the transboundary Ktunaxa Nation Territory
- Six Governments CSKT, KTOI, KNC
- One Watershed; Nation does not recognize the Colonial US/CA Boundary



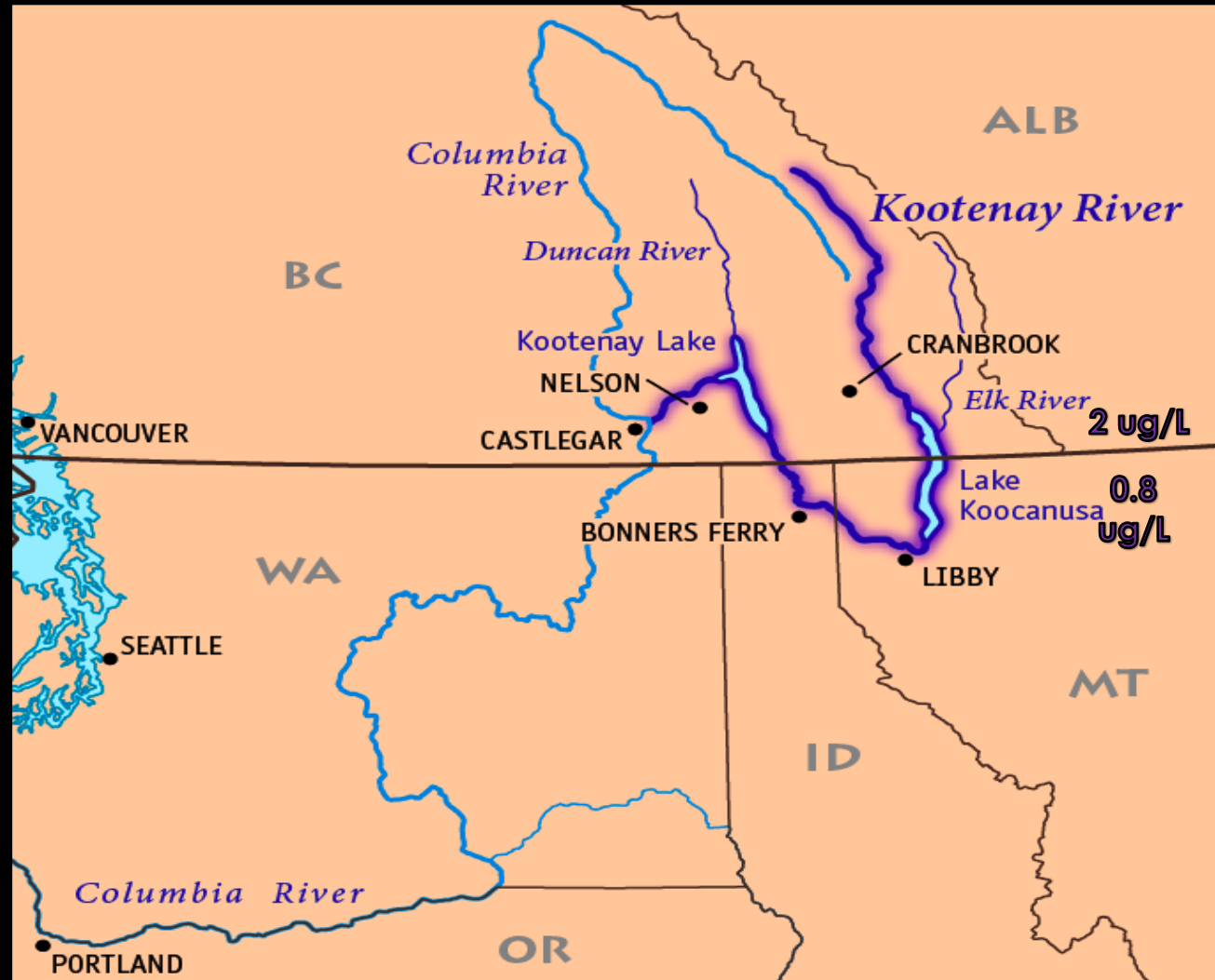
Where are we today...



- Mines approved based on mitigations that aren't effective at the scale of the mines
- 2014
74 westslope cutthroat trout killed at outlet of the facility
- 2016- 2018
Shut down due to plant concentrating selenium rather than reducing it downstream

Where are we today...

- One watershed, two different water quality standards for the same contaminant
- Mine contaminants transported hundreds of km down river
- New mines proposed, excluding impacted governments





KTUNAXA
NATION



Transboundary Ktunaxa Nation:

Letters to the Provincial, State
and Federal Governments in
2012, 2017, 2019, 2021 and 2022

Hon. Hilary Clinton
U.S. Secretary of State
U.S. Department of State
2201 C Street NW
Washington, DC 20520
USA

Hon. John Baird
Canadian Minister of Foreign Affairs
Foreign Affairs and International Trade Canada
125 Sussex Drive
Ottawa, ON, Canada
K1A 0G2

October 11, 2012

Dear Ms. Clinton and Mr. Baird,

The transboundary Ktunaxa Nation has asked for a wholistic, watershed-scale approach through the International Joint Commission (IJC)



- **Accountability** for legacy damages
- **Cumulative** rather than piece-meal assessment of mines and impacts
- **Wholistic** watershed-scale approach led by the Indigenous governments
- **Inclusivity** for all impacted governments



Thank you very much!