Kootenai River Subbasin & KVRI - Part 2 -

2021 IGBC Executive Cmte. Meeting
June 15-17, 2021

Scott Soults, Kootenai Tribe of Idaho
Kootenai Valley Resource Initiative (KVRI) may be limited to Boundary County, but local community understands the Kootenai River (Subbasin/Watershed) Considerations of Subbasin/Watershed issues:

- History & European Settlement
- River Alteration and Regulation
- Affected Environments
- Diverse KVRI Committees and Interaction
Kootenai Aboriginal Territory

LEGEND
- Present-day Kootenai Communities
- Solid Lines: Natural Boundaries
- Dashed Lines: Artifical Boundaries
- Green Shade Areas: Areas Known Peacefully with Other Aboriginal Nations.

WASHINGTON
MONTANA
OREGON
IDAHO
CANADA B.C.A.
Kootenai River Subbasin

- 9 million acres
  (19,420 square miles)
- 480 miles long
- 2 Countries
- 2 States, 1 Province
- Endangered Species
- Hydropower
- Resource based economy
Lower Kootenai River Watershed

Prior to European settlement the Kootenai River watershed, with its riparian forest and wetland complexes, was one of the most productive in Pacific Northwest.
1928 Wetlands
Dike Districts

Districts: Dates:

1. Aug. 16, 1920
2. June 7, 1924
3. May 31, 1924
4. June 7, 1924
5. Nov. 17, 1924
6. July 15, 1925
7. Aug. 14, 1925
8. Dec. 9, 1925
9. Jan. 4, 1926
10. April 11, 1927
11. Aug. 22, 1927
12. Sept. 20, 1929
13. Aug. 4, 1930
15. Feb. 21, 1947
16. Feb. 21, 1947
Changes to Kootenai River Subbasin

- **1800s**
  - Beaver trapping
  - Mining
  - Logging

- **1900s**
  - Floodplain diking
  - Conversion of wetlands to agriculture

- **1950s**
  - Infrastructure development
  - Non-native species
  - Commercial fish harvest

- **1970s**
  - Fertilizer plant
  - Libby Dam operations
  - Libby Dam construction
Mean Monthly Flow Patterns in the Kootenai River at Leonia, ID 1928-1999

Historical Vs. Current Hydrograph

Discharge (cfs)

January  February  March  April  May  June  July  August  September  October  November  December

Month

Recruitment Box Model

Figure from:

**Figure 2.** The riparian “Recruitment Box Model” that describes the seasonal streamflow pattern, associated river stage (elevation), and flow ramping that will enable successful seedling establishment of cottonwoods and willows. Figure modified from Amlin and Rood (2002).
Species of Concern

- Grizzly Bear
- South Arm Kokanee
- Canada Lynx
- Ladie’s Tresses Orchid
- Woodland Caribou
- Spalding’s Catchfly
- Westslope Cutthroat
- Redband Rainbow
- Water Howellia
- White Sturgeon
- Bull Trout
Examples of Affected Environments

• Marginal recruitment/establishment of riparian hardwoods
• White sturgeon listed endangered in 1994
• Non-sustaining burbot and kokanne populations
• Significantly diminished grizzly bear spring range habitat
• Decrease in raptor and cavity nesting habitats
• Small isolated beaver populations
• Altered ecological functions in Riverine Wetlands (e.g. overland flows, sediment, carbon cycles)
• Alterations to Forested and Alpine ecosystems
Kootenai Valley Resource Initiative

- Burbot Recovery
- Grizzly Bear Conservation
- Wildlife – Auto Collision
- Forestry Committee
- Wetland / Riparian
- TMDL
- Issue Forum

It’s A Bigger Picture
Wetland and Riparian Committee
15-20 Members

Balancing social, natural resources, and economic perspectives

- Links information about wetland and riparian areas to community values and issues of concern
- Support integration of community needs and values in development of projects and programs
Forestry Committee

30 Members

- Addressing forestry resources with our community using a landscape approach
- The long term goal is to make Boundary County National Forest lands ecologically, economically, and socially sustainable

- Science-based Expertise
- Partnerships – developing common ground, local/social support, and areas of agreement for management
Wildlife-Auto Collision Committee

30 Members

KVRI provides an effective conduit for reaching out to the community for feedback and guidance in considering ways to reduce wildlife conflicts and build support for transportation mitigation efforts.

Much of the County is a wildlife corridor
➢ Connectivity
➢ Genetic Interchange
➢ Migration
➢ Permeability

American Wildlands Corridors of Life
Grizzly Bear Committee

30 Members

Committee formed to serve as a forum to educate ourselves and our community on Grizzly Bear Management and to determine opportunities for a role in that management.
Bears and Electric Fencing:
A starter’s guide for using electric fencing to deter bears

Living In Bear Country

Be Bear Aware
Register to Receive Bear Info in Your Area
https://local.nixle.com/boundary-county-sheriffs-office/
Prospective Realization

Kootenai Valley Resource Initiative (KVRI)
The End

...OR

Just the Beginning