



# 2017-2018

# **BIENNIAL REPORT** Flathead Basin Commission

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# Flathead Basin Commission Biennial Report (FY 2017-2018)

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# Message from the Chair

On behalf of the Flathead Basin Commission (FBC), we are pleased to provide our biennial report for 2017-2018.

The accomplishments and challenges of the FBC will be discussed throughout the report, but this has been a time of change for the Commission, and I want to take the opportunity to address some of the recent changes up front. I have served on the FBC since 2002 and became Chair in 2018, I also served as Vice Chair for the previous year.

In these past two years, the FBC has experienced reduced funding, a handful of new members appointed to the Commission, and a turnover in staff. There are multiple reasons for these changes, including conflicts between agencies and members of the Commission and decreased revenues in the natural resource operations account that has been funding the FBC, but we have taken these changes seriously and are working to reevaluate and stabilize for the long-term continuance of the FBC. While we have an existing five-year Strategic Plan (2016-2021) previously approved by the Commission, we have developed a two-year work plan to prioritize key focus areas moving forward, and we're seeking the renewal of a portion



# For More Information

Flathead Lakers

University of Montana's Flathead Lake Biological Station

Flathead Watershed Sourcebook

Montana Aquatic Invasive Species Program

Montana Watershed Coordination Council

Whitefish Lake Institute



'Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.' -Margaret Mead



of our base (state) budget allocation, as well as exploring options such as grant programs for additional funding that supports these key priorities.

The FBC remains committed to protecting the outstanding natural resources of the Flathead Basin. I speak on behalf of all the Commissioners when I say that I am looking forward to the FBC continuing to earn support from the Governor's Office, the State Legislature, and the citizens of the Flathead Basin for our dedication to ensuring the best possible protections for the communities, water, land, air and native species that thrive here.

Sincerely,

Rich Janssen, Chair Department Head, Natural Resources Confederated Salish & Kootenai Tribes rich.janssen@cskt.org (406) 675-2700

# Staff Introduction

Water, has, in fact, become more precious than gold. While I'm new to the FBC, I've spent the last 15 years working on watershed and aquatic invasive species issues and am dedicated to the conservation and protection of the resource itself, as well as all the communities and native species that depend on it. A little bit about me: I recently moved back to Montana to work and live in a place I've always felt an amazing amount of kinship and awe - both visiting as a child visiting and attending Carroll College for my bachelor's degree. Since I left Montana in 2005, I worked on water quality and quantity issues for the Pend Oreille Basin Commission based in Sandpoint, Idaho, where I became immersed in the water world - everything from lake level negotiations to shoreline setbacks, septic standards, fishery issues, non-point source pollution, nutrient standards, and yep, you guessed it, aquatic invasive species (AIS). From there I attended the University of Florida, Gainesville to pursue my master of science degree and work as a research assistant for the Center for Aquatic and Invasive Plants. After graduation I had the opportunity to lead the development of a comprehensive AIS Program in the Province of Alberta, where I spent the past five years.

I am excited to be back in Montana, a place I have always felt a deep connection, and eager to assist in the protection of our outstanding natural resources. My role is a dual one, as I am Commission Administrator to both the Flathead Basin Commission and the Upper Columbia Conservation Commission, created in the 2017 Legislature to enhance AIS prevention efforts to protect the water resources of the Columbia River Basin. While there is a lot of work to do on both fronts, I am honored to be able to staff both of these multi-stakeholder Commissions



dedicated to protecting the state of Montana, our downstream partners, and our water resources for many generations to come. I look forward to getting to know our stakeholders and partners. Here's to moving forward and focusing on a bright future!

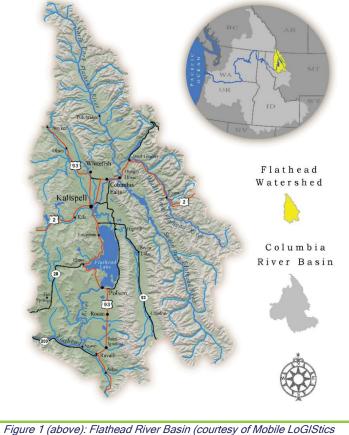
# Sincerely,

Kate Wilson, Commission Administrator Montana Dept. of Natural Resources & Conservation Flathead Basin Commission Upper Columbia Conservation Commission kate.wilson@mt.gov (406) 542-4282

# About the **Flathead Basin**

The Flathead river basin/watershed is comprised of 6,000 acres of forests, agricultural land, and towns. Many tributaries contribute to the watershed, including the Stillwater, Swan, and Whitefish Rivers, which unite to join Flathead Lake, the largest natural lake west of the Mississippi River. The North, Middle, and South Forks of the Flathead River contribute the greatest volume of water to Flathead Lake, which is a major portion of the headwaters of the Columbia River. The Flathead basin is also part of the remarkable Crown of the Continent Ecosystem, which encompasses 18 million acres in Montana, British Columbia and Alberta. The Crown of the Continent Ecosystem is one of the most ecologically diverse and intact landscapes remaining in North America.

# Flathead Watershed



Mapping and the Montana Lake Book)

Many native species are found in the Flathead basin, including the largest grizzly bear population in the North American interior, as well as populations of elk, bighorn sheep, black Budget

| Fiscal Year 2017 Budget Breakdown (7/1/16-6/30/17)             |                                 |                    |              |             |  |
|--|---------------------------------|--------------------|--------------|-------------|--|
| ORG/SOURCE   | FUND                            | STANDARD<br>BUDGET | SPENT        | BALANCE     |  |
| FBC Base allocation  | Natural Resource<br>Operations* | \$81,908.00        | \$81,843.25  | \$64.75     |  |
| FBC Private<br>Donations                                       | Nonbudgeted                     | \$53,411.90        | \$21,747.33  | \$26,252.67 |  |
| <b>USFS AIS Grant</b>  | Federal Grant                   | \$43,148.15        | \$0          | \$43,148.15 |  |
| BOR Grant  | Federal Grant                   | \$32,833.43        | \$32.833.43  | \$0         |  |
| AIS Station<br>(MOU)   | Misc. State Special<br>Revenue  | \$4,900.00         | \$4,900.00   | \$0         |  |
| AIS Station<br>(Clearwater)                                    | Misc. State Special<br>Revenue  | \$4,900.00         | \$4,900.00   | \$0         |  |
| TOTAL 2017   |                                 | \$283,216.48       | \$167,116.77 | \$71,099.71 |  |
| Includes \$17,000 Natural Resource Operations budget shortfall |                                 |                    |              |             |  |

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| Fiscal Year 2018 Budget Breakdown (7/1/17-6/30/18) |                                  |                    |              |             |  |  |
|--|----------------------------------|--------------------|--------------|-------------|--|--|
| ORG/SOURCE   | FUND                             | STANDARD<br>BUDGET | SPENT        | BALANCE     |  |  |
| FBC Base<br>allocation                             | Natural Resource<br>Operations** | \$102,155.00       | \$94,574.13  | \$7,580.87  |  |  |
| FBC Private<br>Donations                           | Nonbudgeted                      | \$26,252.67        | \$26,252.67  | \$0         |  |  |
| <b>USFS AIS Grant</b>                              | Federal Grant                    | \$43,148.15        | \$25,990.52  | \$17,157.63 |  |  |
| <b>TOTAL 2018</b>                                  |                                  | \$126,555.82       | \$101,817.32 | \$24,738.50 |  |  |

Includes \$45,000 Natural Resource Operations budget shortfall





discharges and phosphorus pollution, which increases algal growth, nuisance aquatic plants and lowers dissolved oxygen levels. The US Bureau of Census has indicated that at least 10 percent of onsite systems are no longer working, with some communities reporting failure rates as high as 70 percent. Nationally, some 28,821 miles of streams are designated as "threatened or impaired" by the U.S. Environmental Protection Agency (EPA) because of septic systems.

In Montana, with few exceptions (such as Lewis and Clark County regulations) there is no requirement to maintain or inspect septic tanks. We have some of the lowest standards in the US. Oversight and enforcement of operational requirements to keep septic systems from leaking raw wastes onto the land or into ground and surface water is weak across much of outer suburban and rural America where most systems are installed. There are no federal rules that address septic systems, it is up to the states, counties and tribes to regulate, so there is a lot of variability in implementation and enforcement of standards. Montana Department of Environmental Quality provides standards for design, but local governments oversee the installation of septic systems. Several studies have been conducted, primarily in the Flathead Basin, that demonstrates that this NPS issue affects us as well, and the FBC is pursuing a study bill to help address the issue in the 2019 Legislative Session.

# OTHER ACTIVITIES

In an effort to provide up-to-date and accurate information about the FBC, current Commissioners and staff, and priority issues, the website urgently needed a remodel. While it will take some time to launch the full site, which involves a new URL that better reflects the status of the FBC as a title 2 agency (flatheadbasincommission.mt.gov), the 'transition page' is now live on the former site: www.flatheadbasincommission.org.

Other topics that the FBC has heard about and discussed at meetings in 2018 include: the history and current status of the former Burlington Northern Santa Fe Tie Treating Plant near Somers; the background and current situation regarding the Confederated Salish & Kootenai Tribes Water Compact; and water quality monitoring and Total Maximum Daily Load (TMDL) implementation for nutrients in the basin.

While we acknowledge that this is very much a time for rebuilding and reevaluating priorities for the FBC, the Commissioners remain dedicated to the statutory duties and intentions behind the enabling legislation enacted in 1983. Topics set for upcoming meetings include: the Columbia River Treaty renegotiation, stormwater issues in the basin, and Bonneville Power Administration mitigation efforts within the basin.



bear, deer, mountain goat, grey wolf, lynx, mountain lion and wolverines. The watershed serves as an important bird migration corridor as well as a key habitat for bull trout and westslope cutthroat trout.

Flathead Lake is nearly 28 miles long, 15 miles wide, depths of up to 370 feet and a surface area of 126,000 acres (when full). It is the 79<sup>th</sup> largest of the natural freshwater lakes in the world. Kerr Dam spans the outlet of Flathead Lake, which controls the top ten feet of the lake and is operated by the Confederated Salish & Kootenai Tribes, who manage the southern half of the lake. Communities along Flathead Lake include Bigfork, Woods Bay, Bear Dance, Finley Point, Polson, Big Arm, Elmo, Dayton, Rollins, Lakeside and Somers. The population residing near and along Flathead Lake is estimated to be ~95,000. While Flathead Lake is considered to be 'oligotrophic' (lacking in plant nutrients), decreases in water quality have led the US Environmental Protection Agency and Montana Department of Environmental Quality to categorize it as 'impaired' due to human caused increases in nutrients and sediments.

There are many other lakes in the basin, many of which are deep and cold glacial lakes. Of those that get a fair amount of recreation-based traffic include many in Glacier National Park such as Lake McDonald, as well as Whitefish, Beaver, Foys, Holland, Lindbergh, Swan, Little Bitterroot, McGregor, Ashley, Tally, and Mary Ronan lakes, as well as Hungry Horse Reservoir.

The major dams in the Flathead watershed include Hungry Horse Dam on the South Fork of the Flathead River, the Bigfork Dam on the Swan River, and Kerr Dam on Flathead Lake. Given the connectivity and nature of water, the activities in the Flathead basin are of major interest to downstream states, tribes and other partners.

# About the Flathead Basin Commission

THE FLATHEAD BASIN COMMISSION (FBC) was created in 1983 by the Montana Legislature to monitor and protect water quality in the one of the state's most important watersheds. The FBC is a uniquely structured non-regulatory organization that works to accomplish its important mandate in a consensus-building manner, stressing education, cooperation, broadly based community involvement, partnerships with agencies and nonprofit groups, and the voluntary participation of basin residents.

The 23 members of the Commission represent a wide cross-section of citizens and local, state, tribal, federal, and provincial agency representatives who strive to identify the basin's water quality problems and work collectively to implement the most effective solutions.

The FBC meets a minimum of four times annually. In addition, the Executive Committee, comprised of the Chair, Vice Chair, DNRC representative, two members at large and staff,



conducts bi-weekly calls to share information and conduct business between meetings (per current by-laws).

The FBC has become a model of successful citizen and inter-agency cooperation in a geographically vast and ecologically diverse watershed characterized by its overall pristine character, international dimensions, and multi-jurisdictional nature.

This report summarizes the FBC's activities and initiatives in the 2017-2018 fiscal years. More information on the FBC, including updates on activities, basin water quality issues, and the FBC's establishing legislation are available on our website. Those seeking more detailed information regarding any aspect of FBC and its activities are encouraged to contact us or visit our updated website at www.flatheadbasincommission.org.

# Flathead Basin Commission Executive Committee

Rich Janssen – CHAIR



Ed Lieser – VICE CHAIR



Kathy Olsen – DNRC



Confederated Salish क्ष Kootenai Tribes (Polson)

Governor-Appointed Member (Whitefish)

DNRC Water Resources (Kalispell)





| FBC Focus Area  | FBC Support Area  | FBC Regular Business  |  |  |  |
|---|---|---|--|--|--|
| Water Quality – monitoring, trends, protection  | Aquatic Invasive Species – prevention and management                                  | <b>Congressional and Legislative</b><br><b>Coordination</b> – protect and<br>conserve natural resources                                   |  |  |  |
| <b>Conservation Planning</b> – fish, wildlife, recreation, community  | <b>Rail Safety/Spill Prevention</b> – mitigation and response                         | <b>Local and Regional Coordination</b><br>– provide a forum on natural<br>resource issues for the community,<br>stakeholders & the public |  |  |  |
| <b>Track &amp; Respond to 'Orphan</b><br><b>Issues'</b> – Advocate for addressing<br>emerging natural resource issues in<br>the basin | <b>Transboundary Issues</b> –<br>headwaters protection, international<br>coordination | Provide a Regular Presence within<br>the Natural Resource Community<br>– advocate for and participate in<br>conservation issues           |  |  |  |
| Figure 5: Table Summarizing FBC's Two Year Work Plan Priorities (2019-2021)   |   |   |  |  |  |

# WATER QUALITY - NON-POINT SOURCE POLLUTION

Non-Point Source (NPS) pollution comes from runoff, precipitation, drainage, atmospheric deposition, seepage or modification of hydrology. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. The runoff then picks up natural and humanmade pollutants, finally depositing them into lakes, rivers, wetlands, and ground waters. NPS can include excess fertilizers, pesticides, oil, sediment, salts, as well as bacteria and nutrients from livestock and faulty septic systems. The US Environmental Protection Agency cites that states report NPS pollution is the leading remaining cause of water quality problems. These pollutants have harmful effects on drinking water supplies, recreation, fisheries and wildlife.

The FBC has prioritized a couple NPS issues to focus on for the next two years: septic leachate and stormwater. Septic systems consist of a tank that receives household effluent from toilets, sinks, showers and washing machines, and a drainfield. Septic 'leachate' is the liquid that remains after the wastewater drains through septic solids. More than one in five households in the US (~21.5 million) have individual or small community septic systems. Septic systems that are properly planned, designed, sited, installed, operated and maintained can achieve satisfactory wastewater treatment. However, systems that are sited in densities that exceed the treatment capacity of regional soils and systems that are poorly designed, installed, operated or maintained can cause problems. Poor drainage, surface ponding, and groundwater contamination can result. The most serious documented problems involve contamination of surface waters and ground water with disease-causing pathogens, pharmaceutical compounds and nitrates. Other problems include excessive nitrogen

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# Dean Sirucek - Member at Large



# Mike Koopal – Member at Large



Jasmine Courville- Brown



Steve Frye



HELP STOP THE SPREAD OF WATERS **INVASIVE SPECIES** 

Your watercraft must be inspected if:

You encounter an open inspection station.

CLEAN. DRAIN. DRY.

- · You are coming into Montana from out-of-state.
- · You are traveling west over the Continental Divide.

 You are launching anywhere within the Flathead Basin and your watercraft last launched on waters outside of Flathead Basin.



Figure 4: Example of FBC Sponsored AIS Outreach

# STRATEGIC PLANNING & WORK PLAN DEVELOPMENT

With a smaller base budget than previous years, new staff and a handful of new Commissioners, the FBC undertook efforts to prioritize topics/areas of the existing Strategic Plan (2016-2021) to draft a two-year work plan (2019-2020). The work plan will help guide staff time, set Commission priorities, and track key natural resource issues in the basin.

The Work Plan is split into three categories: 'Primary FBC Focus Area,' 'FBC Support Role,' and 'Regular Business.' The three categories designate the role that FBC would play in a myriad of natural resource issues in the Flathead Basin.

- 'Primary Focus Areas' are those that the FBC has prioritized as issues/topics to pursue and potentially take a leadership role in the coming years.
- The 'Support Role' categories include topics that the FBC will stay engaged in and advocate for when needed, though probably not in a leadership capacity.
- 'Regular Business' categories capture those duties and program areas that are part of the Commission's regular work - engaging with local communities, building relationships, and connecting with legislators and decision makers on key natural resource issues.

In the following table (below), each topic is broken down into categories, objectives and tasks in the (draft) two-year Work Plan.

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# Governor-Appointed Member/Flathead Conservation District (Kalispell)

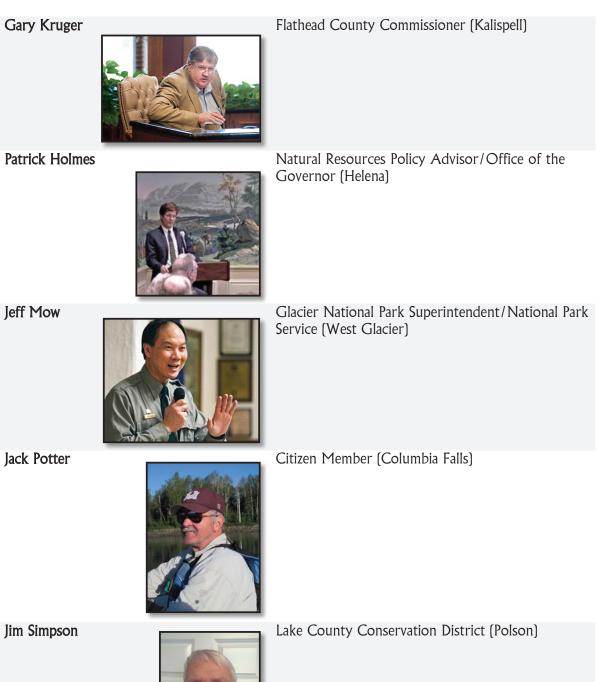
Governor-Appointed Member/Whitefish Lake Institute (Whitefish)

# Flathead Basin Commission Governor-Appointed Members

Citizen Member/Confederated Salish & Kootenai Tribes (Ronan)

Citizen Member (West Glacier)





# 2018

# **AQUATIC INVASIVE SPECIES**

Two years after the initial detection of invasive mussel veligers in Tiber and Canyon Ferry, still no adults or additional larvae have been detected in the state of Montana. In 2018 the state continued to augment its AIS Program, including enhancing partnerships with local entities to run watercraft inspection stations. Between the state's increased efforts, the uncertainty of being able to implement the Flathead Basin Pilot Program, standing up the Upper Columbia Conservation Commission, staff and member turnover, and revenue shortfalls facing the FBC, AIS efforts on behalf of the FBC were reduced in 2018.

Recognizing the importance of the basin as an ecological treasure and



a travel destination, the state instituted a new



rule to better protect the Flathead Basin in 2018: all watercraft entering the basin must be inspected prior to launch, which was also supported by the language in House Bill 622's Flathead Basin pilot program. A legal opinion provided by the state regarding the FBC's proposal to institute watercraft fees within the basin to fund additional prevention efforts dissuaded the Commission from pursuing the pilot program in full, though the FBC remains committed to engaging in the AIS issue and assisting where needed and appropriate.

The FBC used existing AIS federal grants (Bureau of Reclamation, US Forest Service) to augment outreach efforts, working closely with Montana Fish, Wildlife & Parks to maintain consistency on the Clean Drain Dry campaign targeting boaters, angers and other water users. The FBC paid for additional advertising targeting boaters most likely to use watercraft from both urban and rural areas within the basin, as well as Missoula and the Bitterroot Valley. Media purchased included gas station TV in partnership with the Flathead Lakers, print ads, online banners and social media ads, radio and television.

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Figure 3: Montana's Clean Drain Dry campaign encourages boaters and anglers to take three simple steps each time they use a waterbody



• All watercraft exiting Tiber and Canyon Ferry Reservoirs require an inspection (with the exception of 'certified boaters').

The FBC continued its efforts to prevent the introduction of AIS into the Flathead Basin in 2017, mainly by facilitating partnerships with the Confederated Salish & Kootenai Tribes and the Blackfeet Nation to augment their efforts at mandatory watercraft inspection stations. While the State AIS Program contracted with these tribes for the operation of key border/basin stations, the FBC provided additional funding via federal grants to cover additional stations. In addition, the FBC covered the



Required Prior to Launching a Watercraft West of the Continental Divide

Clearwater inspection station in the early season (March - May) until other partners took over operations in partnership with the state.

The FBC also worked with a Flathead legislator to draft legislation for the 2017 legislative session that would provide additional authorities to the FBC to bolster AIS prevention efforts in the basin. This resulted in a multi-faceted bill (House Bill 622) that included a pilot program for the Flathead Basin to be implemented in 2018 pending funding, programmatic support and authorities, for which the FBC drafted rules to accompany the pilot program. The bill also included the creation of a <u>new Commission</u> dedicated to AIS prevention and enhancing coordination in the Upper Columbia Basin to augment efforts to protect the headwaters of the Columbia River Basin, the last major river drainage free of zebra/quagga mussels.

# **OTHER ACTIVITIES**

In addition to the AIS issue, the FBC also continued to monitor and track other natural resource issues in the basin in 2017 including rail safety, drought planning, wastewater management, and transboundary waters. Staff and a handful of board members also set up a 501(c)(3) nonprofit called the 'Flathead Basin Protection Fund,' but due to staff and board member turnover, not much is known about this entity to date.





Chip Weber



# Flathead Basin Commission Ex Officio Members (Non-Voting)

Mark Bostrom



Tim Davis



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Lake County Commissioner (Polson)

Flathead National Forest/US Forest Service Regional Forester (Northern Region - Kalispell)

Montana Department of Natural Resources & Conservation – Conservation & Resource Development Division Administrator (Helena)

Montana Department of Environmental Quality – Water Quality Division Administrator (Helena)



Jason Glidea



US Environmental Protection Agency - TMDL Planner (Helena)

Dennis Philmon



US Bureau of Reclamation – Hungry Horse Project Superintendent (Hungry Horse)

Mark Rellar



Bonneville Power Administration – Montana State Liaison (Helena)

Jim Williams



Montana Department of Fish, Wildlife and Parks -Region 1 Supervisor (Kalispell)



# 2017-2018 Summary of Accomplishments, **Activities and Initiatives**

# 2017

**AQUATIC INVASIVE SPECIES (AIS)** 

Aquatic Invasive Species (AIS) are non-native species (or those expanding in range) that pose a threat to the environment, economy and/or human health. Montana and other western states have had programs focused on prevention that include watercraft inspections at key locations, monitoring of waterbodies, education and outreach, and response planning. Montana has had an AIS program since the mid-2000s, but it has expanded since the detection of zebra/quagga mussel veligers (larvae) in 2016 in Tiber and Canyon Ferry Reservoirs. States and provinces across the west have created AIS program standards to increase consistency and protection, including detection standards. For this reason, Tiber is considered 'positive' for five years from the initial detection (2021) and Canyon Ferry is considered 'suspect' for three years (2019). These detections in two Montana reservoirs also resulted in new AIS rules being adopted. In 2017, it was not only mandatory for all watercraft (motorized, non-motorized, commercial) to stop if they encountered an inspection station, but other additional rules were implemented state-wide. These rules include:

- waters:
- launch; and





Kate Wilson – Commission Administrator Montana DNRC Conservation & Resource Development Division/Flathead Basin Commission/Upper Columbia Conservation Commission (Missoula)

All watercraft entering the state require an inspection prior to launching in Montana

All watercraft crossing the Continental Divide to the west require an inspection prior to