

FLATHEAD BASIN COMMISSION

Kalispell Wastewater Treatment Plant
2001 Airport Rd, Kalispell, MT

February 19, 2020

AGENDA

11:00 AM	Welcome, Introductions, Confirm Quorum	Rich Janssen, CSKT (Chair)
11:10 AM	Discussion/approval of <i>DRAFT 10/16 Minutes</i>	Kate Wilson, FBC staff
11:20 AM	What Have Staff Been Up To? Activities/Events; Budget and Grants; Projects; Website	Kate Wilson; Cassidy Bender, FBC staff
11:50 AM	What Should We Expect From the 2021 Legislative Session? Planning for the Upcoming Session; Agency/Legislature Updates	Mark Bostrom, DNRC
12:00 PM	LUNCH (<i>provided</i>)	
12:45 PM	How Is the Stormwater Project Going? Presentation of Work Plan for Stormwater Project	Emilie Henry, Big Sky Watershed Corps; Casey Lewis, City of Kalispell; Kate Wilson
1:15 PM	Flathead Lake TMDL Model Analysis & Discussion Model Results, Data, Non-Degradation Rules, Future Approach	Myla Kelly and Eric Regensburger, DEQ
2:00 PM	How is the Onsite Wastewater Treatment Committee Progressing? Committee Approach & Timeline. Legislative Connections.	Ed Lieser, FBC Vice Chair; Mike Koopal, Whitefish Lake Institute/FBC; Kate Wilson
2:30 PM	City of Kalispell Public Works Overview/Update Smart Growth and WWTP Permit	Susie Turner, City of Kalispell Public Works Director
3:00 PM	<u>Tour:</u> Wastewater Treatment Plant	Aaron Losing, City of Kalispell Wastewater Treatment Plant Manager
4:00 PM	Project Discussion: Committee Needs, Potential FBC Monitoring, Emerging Issues, Upcoming Meeting Agenda Items ACTION: Discuss/Allocate & Approve Project Funding	Samantha Tappenbeck, Flathead Conservation District; Dean Sirucek, FBC
4:30 PM	Public Comment	Rich Janssen
4:45 PM	Wrap Up & Adjournment Next Meeting Dates/Locations, Doodle Poll Results: May 20, Sept 16	Rich Janssen; Kate Wilson

All Flathead Basin Commission (FBC) meetings are open to the public. The FBC will make reasonable accommodations for persons with disabilities who wish to participate in this public meeting. Please contact Kate Wilson (kate.wilson@mt.gov or 406-542-4282) as soon as possible before the meeting date.

MEETING MINUTES

Meeting/ Project Name:		Flathead Basin Commission	
Date of Meeting:	February 19, 2020	Time:	11am-5pm
Minutes Prepared By:	Cassidy Bender	Location:	Kalispell Wastewater Treatment Plant
List of Acronyms			
AIS	Aquatic invasive species	FBC	Flathead Basin Commission
BOR	US Bureau of Reclamation	FLBS	Flathead Lake Biological Station
BPA	Bonneville Power Administration	FWP	Montana Fish, Wildlife & Parks
BSWC	Big Sky Watershed Corps (AmeriCorps program)	GNP	Glacier National Park
CEMIST	Central Eastern MT Invasive Species Team	MCWD	Missoula County Weed District
CFC	Clark Fork Coalition	NPS	National Park Service
CRB	Columbia River Basin	NRCS	Natural Resource Conservation Service
CRC	Clearwater Resource Council	UC ³	Upper Columbia Conservation Commission
CSKT	Confederated Salish & Kootenai Tribes	UCLN	Upper Columbia Lakes Network
DEQ	Department of Environmental Quality	USACE	US Army Corps of Engineers
DNRC	Dept. of Natural Resources & Conservation	USFS	US Forest Service
eDNA	Environmental DNA	USFWS	US Fish & Wildlife Service
E & O	Education & Outreach	WLI	Whitefish Lake Institute
EPA	US Environmental Protection Agency	WRDA	Water Resources Development Act
EQC	Environmental Quality Council (Interim)	WRP	Western Regional Panel
1. Welcome and Introductions			
Rich Janssen (Chair)	Welcome. Rich opened the meeting. Confirmed quorum present (for voting purposes).		
Introductions (Roundtable)	Each participant introduced themselves including name, location and organization/interest that they are representing.		
2. Attendees			
<p>FBC (voting members underlined): <u>Rich Janssen</u> (CSKT), <u>Mike Koopal</u> (Whitefish Lake Institute/UC³), <u>Randy Brodehl</u> (Flathead County Commission), <u>Dean Sirucek</u> (Flathead Conservation District), Mark Bostrom (DNRC Helena), <u>Jack Potter</u> (Governor-appointed member), Myla Kelly (DEQ – for Tim Davis), <u>Craig Kendall</u> Representing Kurt Steele (USFS), Kate Wilson (DNRC/FBC & UC³ Commission Administrator), <u>Ed Lieser</u> (Flathead Basin Commission), <u>Kathy Olsen</u> (DNRC Kalispell), <u>Casey Lewis</u> (City of Kalispell), Cassidy Bender (DNRC/FBC & UC³ Commission Coordinator)</p> <p>Public/Other: Aaron Losing (City of Kalispell, WWTP Manager), Eric Regensburger (DEQ), Donna Pridmore (Flathead Conservation District), Samantha Tappenbeck (Flathead Conservation District), Hailey Graf (Flathead Conservation District), Mikaela Richardson (BSWC, Flathead Conservation District), Rep. Deb Powers (House District 3), Onno Wieringa (Flathead Lakers, resident), Rickey Schultz (HDR Engineering), Kianna Gardner (Daily Inter Lake), Steve Rosso (Flathead Lakers), Tom Bansak (FLBS), Emilie Henry (BSWC, City of Kalispell)</p>			
3. Agenda and Notes, Decisions, Issues			
Presenter	Topic/Discussion		
Kate Wilson, Commission Administrator	<ul style="list-style-type: none"> <u>Motion</u> to approve minutes as amended (Dean S.) from meeting (October 16, 2019). Seconded (Ed L.). All in favor. <i>Motion passes.</i> Review of Agenda and new staff update; Cassidy Bender- Commission Coordinator FBC/UC³ 		

<p>Approval of Minutes</p>	<ul style="list-style-type: none"> • Cassidy is a Michigan native with a bachelor’s degree in Creative Writing from Saginaw Valley State University. Her background includes invasive species management in Minnesota for the MN & IA Conservation Corps; volunteer coordination, education & outreach, and noxious weed management for Montana FWP at Bannack State Park; Wilderness monitoring and trail maintenance for the USFS Wilderness Crew in the Great Bear Wilderness and most recently, a dual role as Commission Coordinator for MT DNRC, assisting Kate in staffing the FBC and UC³. • <u>Motion</u> to change agenda to move Project & Funding Discussion before the public works session (Randy B.) seconded (Mike K.). <i>Motion Passes.</i> • FBC British Columbia Representative spot is still open. Ed is attending the Crown Managers Fire Forum in Cranbrook, BC (March 10-12th) and will network for possible candidates for that position.
<p>Staff updates</p>	<p>Staff Update & Work Plan</p> <ul style="list-style-type: none"> • Kate and Cassidy to split their time 50/50 with FBC and UC³. • Main activities: support septic leachate committee, support stormwater project with City of Kalispell shared Big Sky Watershed member, support UC³ and FWP, monitoring Flathead Basin natural resource issues, grant proposals and work plans (EPA), follow legislative committees on topics of interest including the Local Government Interim Committee. • Upcoming Events: Water Summit Helena, MT (March 3-4), Pend Oreille Basin Commission Sandpoint, ID (March 30), Pacific Northwest Economic Region (PNWER) Big Sky, MT (Invasive Species Session July 21st), Western Regional Panel (WRP) Anchorage, AK (Sept 16-18), and North American Invasive Species Management Association (NAISMA) Whitefish, MT (Oct 6-8). <p>Budget & Finances: Table Below</p> <ul style="list-style-type: none"> • FY19: \$21,175 Expended • FY20 Personnel: \$50,260/\$77,000 Available • FY20 Operating: \$31,257/\$41,175 Available <ul style="list-style-type: none"> ○ \$20,175 (annual base budget) + \$20,000 (addition approved in DNRC budget) ○ Approved Line Item Budget (June 26th, 2019): ‘Plan B’ (EPA Grant) <ul style="list-style-type: none"> ▪ \$6,000 Member Travel/Meetings ▪ \$12,000 Website/Materials (pop up display, education & outreach materials) ▪ \$0 NPS/Stormwater Project (EPA Grant) ▪ \$3,000 Development/Printing of Annual Report ▪ \$6,000 Crown Managers Partnership, NAISMA, MT Water Summit, etc. (Exec Committee could prioritize) ▪ \$13,175 Other Projects/Contingency ▪ \$40,175 Total • ‘Plan B’ drafted for EPA grant (awaiting confirmation letter) could potentially cover the BSWC member and stormwater project expenses; would leave additional funds available for other projects. • See table below: Red highlights are recommended modifications including <ul style="list-style-type: none"> ○ Requested \$12,000 for website and education/outreach in this fiscal year. Website requires a new RFP so will be a FY21 priority. Modify to \$10,000 toward education and outreach materials for tabling, advertising, etc. Will be using current contract with Windfall (Missoula) where possible, but also have (state) print and mail services.

- Biennial Report line item only needed every two years (biennial). Allocated \$3,000 in FY21 for report.
- Including staff supplies and travel line item in future budgets (\$3-5,000).
- \$2,500 allocated from previous website budget to BSWC stormwater project.
- Contingency/other projects: septic leachate data, additional stormwater monitoring, FBC Strategic Planning Retreat.... Etc.

Amount Approved	Amount Spent	Balance Remaining	Category	Notes
\$6,000	\$3,340	\$2,660	Member travel and meetings	Includes member travel, facility fees and meeting refreshments. **Anticipate spending full allocation, any additional funds transfer to E&O.
\$12,000	\$150	\$11,850 (modified \$10,000)	Education & outreach, promotional materials, website.	Contractor currently with DNRC/FBC. New site RFP (FY21). ** Design/order materials for booths, advertising, etc. Will spend fully FY20.
\$3,000	\$0	\$3,000 (move to FY21)	Biennial Report design, layout and printing (every 2 years)	Biennial Report- 2019/2020 due to Governor's Office by Fall 2020 ** Reallocate to stormwater or other projects
\$6,000	\$1,600	\$4,400	Conference/meeting sponsorships	Spent: Transboundary CRB Conference (\$500), MWCC Annual Partnership (\$100), MT Water Summit (\$1,000) Upcoming FY20: NAISMA (\$3,000), PNWER (1,600) **Spend in full FY20
\$0	\$3,828	\$1,172 (added)	Staff Supplies/Travel (desk, computer, cell phone, printing, training, travel)	Staff costs will be included in future budgets (~\$3-5,000) ** Anticipate \$1,172 additional FY20 (\$5,000 total)
\$0	\$0	\$2,500 (added)	Stormwater Monitoring/Sampling & Analysis	**Augments EPA grant project
\$13,632	\$0	\$13,632 (modified \$11,982)	Other projects/contingency	**Possible Projects: septic leachate data needs; additional stormwater monitoring; water quality monitoring. FBC strategic planning retreat?
\$40,632	\$8,918	\$32,714	Total	

Notes and Discussion

- EPA Grant gives us 6 stormwater sample analyses in the budget, we can apply for 319 grants to include more sampling opportunities or reallocate within budget.
- Kate is half-time FBC and half-time UC³, the new support position (Cassidy) will also be paid out of the personnel budget (separate from operations).
- All state dollars must be allocated before the end of June 30th (FY20); anything leftover reverts to the State Natural Resource Revenue account.

FY21 Estimated Budget: Table Below

- FBC being a title II agency, it is best we are a mt.gov website instead of a .org to exemplify transparency and clear up confusion: we are not a non-profit we are a state agency attachment.

Amount Recommended	Category	Notes
\$6,000	Member travel and meetings	Includes member travel, facility fees and meeting refreshments.
\$15,000	Education & outreach, promotional materials, website.	FY21: Need new RFP for website. Website estimate \$10k, E&O materials \$5k.
\$3,000	Biennial Report design, layout and printing (every 2 years)	Biennial Report- 2019/2020 due to Governor's Office by Fall 2020 (not annual).
\$3,000	Conference/meeting sponsorships	Crown Managers Partnership, Water Summit, MT Lakes Conference, MWCC, etc.
\$4,500	Staff Supplies/Travel (desk, computer, cell phone, printing, training, travel)	Staff costs will be included in future budgets (~\$3-5,000)
\$2,500	Stormwater Monitoring (additional sampling)	Augment EPA grant
\$6,175	Other projects/contingency	Possible Projects: septic leachate data needs; additional stormwater monitoring; water quality monitoring. FBC strategic planning retreat?
\$40,175	Total	

EPA Grant Update: Submitted forms and work plan, awaiting official letter; have received good indication that will be successful

- Track with a different org code (to be assigned when get award letter).
- Multipurpose state and tribal assistance grant - agencies/tribes co-regulate to administer federal environmental statutes
- FBC is eligible under Nonpoint Source Management (Clean Water Act); \$51,113 available (less DNRC indirect \$44,895)

EPA Grant Components (2020-2022)

- Big Sky Watershed Corps (partial, 2 years)
- Stormwater Monitoring & Inventory Project (Flathead Basin)
- Education & Outreach (Rain Garden Initiative, Adopt-a-drain program, Flathead Watershed/Stormwater Curriculum, Organize Local River Clean Up Events)
- Utilize City of Kalispell as a pilot for dry-weather inspection of outfalls
- Break down of EPA Grant in table below

Item	Description	Cost
Big Sky Watershed Corps (BSWC)	Provides staff for stormwater projects 2020-2022 (2 years)	\$14,900 (partial cost for BSWC member for 2 years *MWCC Grant 2020)
Transportation/Vehicle Costs	For work outside of Kalispell city limits	\$2,000

Professional Development (BSWC)	Additional Training (stormwater, GIS, etc.)	\$3,000
Report assistance/design	Graphic design, layout/formatting, editing and printing.	\$4,300
Pilot Stormwater Sampling of High Priority Outfalls	6 sites at \$335/site	\$4,300
Field Tablet for Data Collection	Tablet/data plan (WIFI enabled)	\$1,500
FBC/Kalispell Professional Development	Build knowledge/skills in NPS and stormwater mitigation	\$5,000
E&O: Rain Garden Initiative	Augment partner efforts	\$4,850
E&O: Local Rivers clean up event(s)	Organize, identify partners, recruit volunteers	\$1,000
E&O: Adopt-a-drain Campaign	Ad and material development/supplies, volunteer training, etc.	\$3,645
E&O: Flathead Watershed & Stormwater Curriculum	Provide additional oversight and assist in outreach/implementation	\$1,102
Cost Share (MWCC Grant)	Grant awarded in 2020 for ½ of BSWC term	\$6,000
DNRC Indirect Costs (Federal Grants)	Negotiated rate of 11.73%	\$5,366
Total Budget	\$51,113 EPA; \$6,000 MWCC	\$57,113

Discussion

- New multipurpose grants initiative came out of the Trump Administration and went out to the Dept. of Ag, DNRC, etc. Because FBC is administratively attached to DNRC we are eligible for the EPA grant. Bigger initiative moving forward so we might see similar/more grant opportunities in the coming years.

Mark Bostrom, DNRC

Agency & Legislative Updates

Agency Updates and Discussion

- Handout available and presented at the meeting: Office of Budget and Program Planning (OBPP) Timetable for 2023 Biennium Executive Budget and 2021 Biennium Actions.
- Bureau of Reclamation Development Grants go into several different accounts for natural resource projects and taking care of non-renewable resource extraction issues.
- Example of rare funding situation: appropriations potentially going to MWCC. It's rare for funding to go to non-profits but non-profits that have certain public benefit are an exception. MWCC fund is a source for conservation districts and others who are doing non-point source work. MT Rural Water Association has appropriations as well because of public benefit.

Legislative Updates and Discussion

- Timing of proposed legislation- September committee meetings review proposed legislation
- Commission needs to formulate a request including top priorities/needs and rationale to Mark Bostrom by April 1st. Will then go through DNRC Director Tubbs for April 15th date of OBPP distributing Executive Planning Process instructions for the 2023 Biennium. Determined two-year work plan is a good timeline for feasibility and planning (for budget request).

	<ul style="list-style-type: none"> • Mark: Previous conversation with Jim Simpson created suggestion for FBC to have another 5-year goal “big thing”. To determine what is our society’s needs and establish goals and objectives to complete the next big project. The whole system could work together on one big goal. (Delist Ashley Creek example) • Best option to get agency support is with specific projects e.g. Stormwater, monitoring, Ashely Creek, etc. • With the basin’s exponential growth and fast expansion, FBC is trying to keep up with these issues and retroactively thinking on them. We have great water resources now, how to we prevent and protect ahead of time. Is there a way to get ahead of the issues? • Growth is important but smart growth and growth in the right places is how we will succeed. Where is growth occurring- current septic/rural area issues translate into these exact ideas on being proactive. • We need to focus on getting a handle on the things that are threatening our waters presently and on-site wastewater is the issue right now. • The septic regulations now are not addressing past actions. Seeley Lake example- resistance to taking action on failing septic systems because of money and social barriers. • Education and Outreach for this topic is important. There is public resistance, outside of education and outreach there is really no way to overcome that.
<p>Emilie Henry, Big Sky Watershed Corps; Casey Lewis, City of Kalispell; Kate Wilson</p> <p>Big Sky Watershed Corps Member Activities & Outreach Project</p>	<p>Introduction</p> <ul style="list-style-type: none"> • City of Kalispell and the FBC have partnered on a project to study stormwater in the Flathead Basin, focusing on helping Flathead communities improve stormwater mitigation and protect local water quality. BSWC member will create a comprehensive stormwater inventory which includes an evaluation of needs and issues in the basin. • Project could span several years depending on funding and partnerships. First year will prioritize metropolitan areas and eventually other valley floor locations. • Emilie Henry is the 2020 BSWC member on the project with a degree in geology and government/law. She has experience with lab work, mapping/GIS and water-related research. <p>Project Overview</p> <ul style="list-style-type: none"> • Tentatively settled on 4 sites: Whitefish, Columbia Falls, Evergreen and Bigfork <ul style="list-style-type: none"> ○ Building on existing data sets. (FLBS 2011 + WLI 2014) ○ One location in each site, sampled 3-4 times throughout year ○ Work with City of Kalispell who is already taking regular samples • Working in urban and semi-urban areas in the basin- Incorporated: Kalispell, Whitefish, Columbia Falls, Polson, Ronan, Hot Springs, St. Ignatius and Unincorporated: Bigfork, Lakeside, Evergreen, Pablo • Currently reaching out to MDT for information on Evergreen and Lakeside. • Common response already received is limited stormwater infrastructure and lack of interest in maintaining over time. (Kalispell and Whitefish have more comprehensive data sets) • Lack of digital data out there, mostly receiving hand drawn maps and notes. <p>Discussion and Suggestions</p> <ul style="list-style-type: none"> • Bigfork pre/post treatment sampling: Granite Drive (City Dock) Outfall <ul style="list-style-type: none"> ○ This outfall is built out, another part of the project was huge infiltration gallery at school district, unsure it is best site for sampling. Jellyfish device

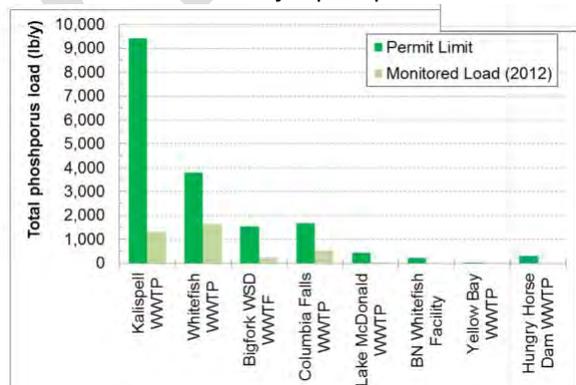
	<p>implemented was shown to increasingly reduce stormwater contamination. Not sure it's a good site for the project (mitigation already completed).</p> <ul style="list-style-type: none"> ○ Casey: Follow up sampling on their treatment here could give alternative perspective (for a different type of treatment than what Kalispell uses). ● Suggest breaking them out in land use classifications: Residential, Commercial, Industrial, to get an idea of the pollution coming from different classifications. ● Recommendations for priority rankings of where we should focus water quality monitoring efforts. Example priorities from Kalispell Sub-basin ranking report. ● Priority Rankings: Geology, soil type, and/or hydrology (how surface and groundwater interact), land use classification, age of infrastructure, sewage disposal on site (septic system density), size of sub-basin, land use classification. ● Possibility of sampling site in Flathead lake (re: MDT's use of chemicals on roads). ● Sampling for heavy metals, nutrients, pH, chemicals, oil and grease, etc. Sampling parameters already in place with City of Kalispell. ● VOC (volatile organic compounds) and Btex (petroleum) and breakdown samples are outsourced from the local lab to Columbia Analytics in Washington State. ● Ed: Dee Brown SD2 in Columbia Falls very interested in stormwater issues, would be a great contact for Emilie. ● Important to show the success of some pre/post treatment to get people interested e.g. "We have done this and found this" – good message for outreach. ● Trigger events for sampling are snow melt in spring and measurable rain events. Based on DEQ standards, each site needs a certain amount on rain to trigger the need for a sample. ● Suggestion to reach out to partners in the area before we finalize location so we can have man power to sample all four sites within the first hour of rainfall. ● When sampling stormwater, it is important to sample sites within first hour of rainfall in which most pollutants are washed out. After that time, becomes diluted. ● Budget seems light for stormwater project: will need more manpower, good predictability for storm movements (timing specific), labs on call. ● This project is Phase 1 of a longer on-going project. ● Suggestion to have a call list of trained volunteers willing to go out in a storm to sample. ● Proposal to shift Bigfork site somewhere else, as we won't gain any new information there. Potential for gaining more from other location. ● Possibly Lakeside (Mike Wilson) wanted to see some action in their community using Bigfork as a blueprint. Possibly Eagle Bend subdivision outside of Big Fork near golf course. ● Emilie: Issue with new locations is that it might not have been sampled in the past so there is not a succinct data set to build off. ● FLBS data set possibly did more sampling in 1996. ● Emilie to work on more sampling locations and will call in to next executive committee with more information. <p>Other Projects</p> <ul style="list-style-type: none"> ● Rain garden initiative and Flathead specific curriculum. Partnership between City of Kalispell and Flathead conservation district developed a draft of a landowner incentive program, soon be reaching out to interested homeowners on building rain gardens. Project will provide Emilie with WET Certification.
Myla Kelly and Eric Regensburger, DEQ	<ul style="list-style-type: none"> ● Myla Kelly appointed by Tim Davis to be future liaison for meetings (represent DEQ). ● Water quality standards: Beneficial uses, criteria, antidegradation (non-degradation)

Flathead lake TMDL Model Analysis & Discussion

- Criteria: specific criteria to protect the beneficial use of each water: drinking, recreation, fisheries, etc.
- Non-degradation: Keep our waters clean for having the sake of clean waters not to meet the maximum criteria.
- Tier 1 existing, Tier 2 high quality, Tier 3 Outstanding resource waterbodies (ORW e.g. National Parks). Flathead Lake is highest protection (A-1 class).
- DEQ uses water quality standards for TMDLs, assessing variances, mixing purposes
- Phase 1 TMDL and Nutrient Management Plan were completed in 2001. Temperature TMDLS were completed in 2014.
- Phase 2 TMDL Flathead Lake listed by DEQ as a priority project past 2022. Potentially be a reassessment of TMDL targets and breakout of allocations.
- Non-point source- 319 funds: Haskill and Ashley creeks riparian function.
- Volunteer monitoring funds available (up to \$3000 for lab costs) – call for applications in early part of 2020- share via interested parties list.
- Watershed Model history: Model created by EPA contractor with oversight by DEQ. (LSPC) Available from model developers.

TMDL Model Analysis

- Simulation Period 2000-2012 with Total Area= 4,539,500 acres
- Parameters: Streamflow, Nitrogen, Phosphorus, Sediment.
- Modeled in Two Phases
 - Phase 1 (undeveloped)- North Fork, Mid Fork, Swan, South Fork
 - Phase 2 (developed)- Stillwater and Flathead
 - Sub-basins (392) like HUC-12 (Each broken into land use, slope, etc.)
- Planned Model Uses
 - TMDL development
 - Flathead Lake standard development
 - Model scenarios for DEQ and others
- Wastewater plants and fish hatcheries included in model as point sources based on typical monthly DMR data in which daily loadings of nutrients and TSS (where applicable).
- Septic systems added into the model as separate point sources.
- Every waste water treatment plant in the valley (via graph) were below permit levels of Phosphorus and Nitrogen by half or more.
- Point sources aren't major phosphorus contributors, nitrate is big concern.

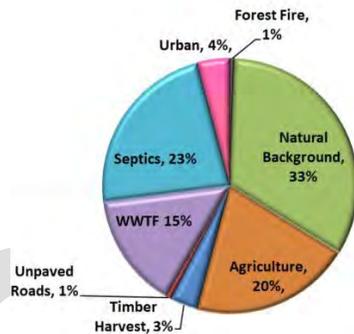


Model Results

- Model results of Phase 1: less developed watersheds in basin
 - Data shows amount of Nitrogen and Phosphorous that is being delivered to the river: almost all N and P is from the Natural Background (91-95%) (Forest fires, etc.)

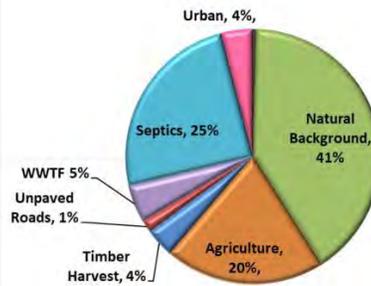
- Model results of Phase 2: more developed Flathead lake and Stillwater
 - Natural Background (33-41%)
 - Agriculture (20%)
 - Septic (23-25%)
 - WWTFs (15-19%)
 - Timber Harvest, Urban, Forest Fires, Unpaved roads, etc.
- Scenarios completed on the watershed and compared loads entering Flathead Lake: existing conditions, point sources at 120% of design load (permitted amount- much higher than what is being put out), non-point source discharges, natural conditions.
 - Nitrogen and Phosphorous have about 20-23% decrease through the scenario.
 - Gave scenario results to FLBS to include in their Flathead Lake model
- Soil type at the creek and soil distance to body of water included in septic system monitoring. (No depth to groundwater included)

Phase 2 Annual TN Load from Landuses



Total N Average daily load: 2,740 lbs/d

Phase 2 Annual TP Load from Landuses



Total P Average daily load: 173 lbs/d

Ed Lieser, FBC Vice Chair;
Mike Koopal, Whitefish
Lake Institute/FBC; Kate
Wilson

**Onsite Wastewater
Treatment Committee
updates**

Committee Updates & Meeting Review

- First meeting was focused on wrapping our heads around the septic leachate issue and identifying the data that is needed.
- We need to characterize the problem from a public relations perspective. Need to know density/ages of septic systems in the basin, how many septic systems pre-1978 permitting, etc.
- Septic systems generally last ~25-30 years based on soil quality and site suitability.
- In a few years 50% of septic systems in the basin will be 30+ years old.
- Requested quote from Headwaters Economics for data to support how many septic systems are in the basin based on housing density and better characterize issue.
- Goals & Objectives of the committee established:
 1. Increase participant knowledge of existing standards and processes for onsite wastewater systems in Montana and in other jurisdictions.
 2. Participate in and make recommendations to the Local Government Interim Committee (via Flathead Basin Commission) for effective onsite wastewater treatment systems.
 3. Identify any knowledge gaps, data needs and/or barriers to onsite wastewater system processes, implementation and functionality.
 4. Explore options for increasing performance and sustainability of on-site wastewater treatment systems in the state, standards, incentives, and funding opportunities.

	<ol style="list-style-type: none"> 5. <u>Identify emerging solutions and appropriate compliance mechanisms.</u> 6. <u>Develop and provide report with recommendations for approaches or actions</u> related to onsite wastewater treatment systems to the Flathead Basin Commission for consideration. 7. <u>Encourage the Flathead Basin Commission to provide public forum</u> on committee findings and recommendation(s). 8. <u>Seek more information on septage/land application requirements and practices.</u> Ensure that any proposed recommendations acknowledge/address any potential septage issues. <ul style="list-style-type: none"> • Approach & Timeline <ul style="list-style-type: none"> ○ Committee meeting tomorrow; topics include status of the state perspective with DEQ, example of Lewis & Clark County model, Flathead Lakers Water Compact update, starting to brainstorm solutions. ○ Goal to identify extent of the problem with data included, then identify barriers for states/counties and proceed from there. ○ Potential for GIS assessment of risk based on density and surface water/groundwater proximity. Model areas of risk to inform where to work and overlay with Cadastral data to see density of systems and proximity to infrastructure. ○ Provide information about the systems and existing/rising problems then identify localized solutions with public benefit beyond the watershed. ○ Issues: real estate transfers, cost of updating old systems, etc. ○ Goal to produce final report with options on how to solve problems on state, county, and city levels. • Legislative Connections <ul style="list-style-type: none"> ○ Local Government Interim Committee was assigned Senate Joint Resolution 3. Intent to explore options for alternate septic systems. Committee considering water quality concerns as well in study bill. ○ Will see if committee moves forward with legislation for 2021 session but not looking likely now (staff, FBC members following progress). ○ Priority of FBC committee is to focus on aging septic systems in the basin. • Steve from Flathead Lakers: Water Compact <ul style="list-style-type: none"> ○ \$1.9 Billion available to CSKT - \$1.4 billion to repair irrigation system ○ \$500 million for other water projects - \$30-40 million for waste water treatment projects, some of this is required for projects on the reservation. ○ The rest could be earmarked for septic decommissioning/replacement if Sen. Daines and CSKT would support concept. ○ Flathead Lakers are working on this; timeframe to make the case to Senator Daines and CSKT by April 1st. ○ Case will include how to administrate this thing: how and what are we going to repair. Can't write checks to individuals but (CSKT) could have grants. ○ If the bill passes this year it will authorize the federal government to allocate money over several years in separate installments. Timeline uncertain. • Discussion <ul style="list-style-type: none"> ○ Sen. Daines' Water Protection Act will make changes to the Compact that are still being negotiated. If changes go beyond a certain point, the compact will go back through the state of Montana to be reworked. ○ Add suitability model to a vulnerability model; density, age, soil depth, soil type, slope, etc.
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- Motion to prioritize septic issue for remaining FY20 budget (Jack) seconded (Ed). *Motion passes.*
- \$12,000 seemed high for outreach, \$2,000 moved to stormwater project
- \$10,000 budget for outreach materials
- Sponsorships are part of our mission and elevate our profile, Executive committee will discuss specifics for each FY budget.
- **Provide list of conferences/sponsorships/organizations for executive committee to discuss what and how to sponsor in the future (move forward with sponsorships as proposed for FY20).**
- Motion to approve modified budget and give executive committee authority to divert funds as needed (Jack) seconded (Randy). *Motion passes.*

Susie Turner, City of Kalispell Public Works Director

Kalispell Public Works Overview/Update Smart Growth and WWTP 2020

Smart Growth and WWTP Update

- Kalispell: 12.5 sq miles; 23,928 population; ~200 city employees, 63 in public works.
- Sewer system: 39 lift stations, 154 miles of sewer mains, 2896 manholes, 9191 sewer accounts (plus Evergreen).

PPM	WWTP	PERMIT @ 3 MGD	WQ LIMITS
BOD	<4	10	10
TSS	<1	10	10
TP	0.12	0.39	0.025
TN	9	15.8	0.275

Plant Design to treat 5.4 MGD
Avg flow is 2.8 MGD

- Smart Growth Mission: to provide long-term centralized wastewater treatment for a growing population by strategically using limited finances to maintain water quality and protect environmental resources in the Flathead Valley.
- Alternatives required to address challenges to meet the mission
 - WWTP permitted through DEQ expiring this year, reapplication in process.
 - Challenge with a continual population growth and more stringent criteria
 - If WWTP can't treat new developments, they will go out to septic systems.
 - Discharge to Ashley Creek upstream of Flathead Lake, limits for lake are unsure right now.
 - Reapplication with DEQ: moving forward with individual variance, site specific, different total Nitrogen and total Phosphorous discharge parameters for Ashley Creek.
 - Alternative analysis Effluent Alternative Management Plan: Looking at options for irrigation in the future of agricultural land. Change outfall to include Flathead River. WWTP could receive nutrient credit to bringing on septic systems.
 - Kalispell Area Septic Permits in Drainage Areas:
 - 729- Ashley Creek
 - 421- Stillwater River
 - 415- Flathead River
 - 130- Whitefish River
 - Some areas are easier to sewer than others and are more cost effective.
 - However, bringing on septic systems takes away capacity for the WWTP to service the annexed area.

	<ul style="list-style-type: none"> ○ Number of units calculate the credit received. WWTP question for council: allowing to sewer an area without annexing the area into the city? <p>Discussion</p> <ul style="list-style-type: none"> ● Whitefish City Council was willing to defer annexation until paid off (financial option) in Lion Mtn project. Option here potentially? ● Impact fees currently \$5,500 for a residential unit new home owner sewer. Current commission is implementing a reduction by ½ (\$2,250). ● Can only utilize impact fees in a certain method, different than the credit received. Cost of impact fees are built from the existing infrastructure. ● Accepting pumped septage is hard; treating on that level makes treatment detrimental. Currently Kalispell does not accept any septage – would overload. ● Temperature TMDL for Ashley Creek: WWTP is ~50% of flow ~45 days of the year. <ul style="list-style-type: none"> ○ Reviewing monitoring requirements for TMDL currently.
<p>Aaron Losing, City of Kalispell Wastewater Treatment Plant Manager</p> <p>Tour: Wastewater Treatment Plant</p>	<p>WWTP Tour and Process Information</p> <ul style="list-style-type: none"> ● Treatment Plant Process <ul style="list-style-type: none"> ○ Kalispell WWTP takes flows from Kalispell and Evergreen. ○ Removes grit in initial stage- “Rags” go to the landfill ○ Pump up to primary clarifier to remove sludge and undergo further fermentation process (more fatty acids) <ul style="list-style-type: none"> ▪ Sludge-fermenter is discharged to primary and then secondary digestion. ▪ Sludge sold as compost to Glacier Gold, who finish composting process. ▪ Fermenter produces good carbon source for phosphorous removal. Bugs release all phosphorous they came in with and then eat the fatty acid oxygen sources and absorb up to three times original amt. ▪ If fermenter is not working and biological removal isn’t possible, done chemically. ○ Primary effluent goes to bio reactor: BOD removal, total nitrogen, and total phosphorous ○ Move to final clarifiers to remove remaining fine sediment ○ Continues to the sand filter room and receives UV filtration ○ Re-aeration basin: dissolved oxygen reaerates before releasing to Ashley Creek ● WWTP is designed to treat 5.4 million gallons per day, currently seeing 2.7 gallons <ul style="list-style-type: none"> ○ Large capital projects (Increase EQ Basin, installing domes on clarifies to prevent algae and water fowl issues) ● Next permit will determine upcoming large projects and next steps for treatments. ● If membrane filtration is required in the future, investing in replacing sand filters is not possible.
<p>Samantha Tappenbeck, Flathead Conservation District; Dean Sirucek, FBC</p> <p>Watershed Support Project Discussion</p>	<p>FCD Projects Update</p> <ul style="list-style-type: none"> ● FCD hosted meeting in January: Watershed Support program providing financial assistance for on the ground projects to address water quality. ● Goal was to collaborate with partner organizations to maximize money on the ground and identify priority projects. ● Organizations attended: FBC, DEQ, DNRC, FWP, NRCS, FCD, Flathead Lakers. ● Meeting reviewed existing data and determined what the criteria would be used to identify priority project areas. ● Prioritization Criteria that came up:

	<ul style="list-style-type: none"> ○ Potential to delist streams ○ Project feasibility based on available funding ○ Long term sustainability of projects (maintain themselves) ○ Biggest water quality concerns/impairments ○ Where can we create land owner 'champions' i.e. good PR opportunities for neighbors and community members to see success stories. <ul style="list-style-type: none"> ● Upper and Middle Ashley Creek (reach-scale) identified as potential target area <ul style="list-style-type: none"> ○ Ashley Lake- Smith Lake (1st reach) ○ Smith Lake-WWTP (2nd reach) ○ WWTP- Flathead Lake (3rd reach) ● Next steps: develop program and FCD decide on implementation of available funds ● NRCS targeted funding through EQUIP program on Ashley Creek forestry ● Flathead Lakers hosted land owner meeting, well attended. Will follow up with specific land owners that presented shovel ready project ideas. (Livestock fencing/water, riparian plantings, septic systems) <p>This program is designed for small bites, low hanging fruit, identifying landowners and assisting them with projects. Bigger projects would require bigger 319 funding.</p>
Public Comment	<ul style="list-style-type: none"> ● None
Kate Wilson	<ul style="list-style-type: none"> ● <u>Motion</u> to adjourn (Ed). Seconded (Jack). <i>Motion passes.</i>
Wrap up & Adjournment	Adjourned at 3:45pm prior to WWTP tour.

4. Action Items				
Action		Assigned	Due Date	Status
1	Send out draft minutes	Kate Wilson Cassidy Bender	3/9/2020	Completed
2	Next meeting dates, location and logistics	Kate Wilson	3/15/2020	Completed
3	Provide list of conferences/sponsorships/organizations for executive committee for FY21 (\$3k available)	Kate Wilson Cassidy Bender	7/15/2020	In progress
4	Emilie to work on more sampling locations and will call in to next executive committee with more information.	Emilie Henry	Call in 3/23	Completed
5	Commission needs to formulate a request including top priorities/needs and rationale to Mark Bostrom.	Exec Comm	3/23/2020 finalize	Completed
EXISTING ACTION ITEMS FROM PREVIOUS MEETINGS				
6	Draft joint UC ³ letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020 season	In progress
7	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson	On-going	
8	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson	*Future meeting topic	In progress
9	Address vacancy on FBC –BC rep (ex-officio)	Kate Wilson	On-going	In progress

FLATHEAD BASIN COMMISSION

VIRTUAL ZOOM MEETING

July 8, 2020

AGENDA

10:00 AM	Welcome, Introductions, Confirm Quorum New members: Kurt Steele (Flathead National Forest); Lech Naumovich (Flathead Conservation District); Myla Kelly (DEQ)	Rich Janssen, CSKT (Chair)
10:10 AM	Discussion/approval of <i>DRAFT 2/19/20 Minutes</i>	Kate Wilson, FBC staff
10:15 AM	What Have Staff Been Up To? Activities/Events; Budget and Grants; Projects, E&O Committee proposal, By-law updates/announcements	Kate Wilson; Cassidy Bender, FBC staff
10:45 AM	What Should We Expect From the 2021 Legislative Session? Planning for the Upcoming Session; Agency/Legislature Updates	Mark Bostrom, DNRC
10:55 AM	How Is the Stormwater Project Going? Presentation of Work Plan for Stormwater Project	Emilie Henry, Big Sky Watershed Corps; Casey Lewis, City of Kalispell
11:05 AM	How is the Onsite Wastewater Treatment Committee Progressing? Committee Approach & Timeline. Legislative and Local Municipal Connections & Needs. GIS Mapping Project & Discussion of Municipal Needs	Ed Lieser, FBC Vice Chair; Mike Koopal, Whitefish Lake Institute/FBC; Ryan Richardson, River Design Group
11:45 AM	ACTIONS/VOTING: FY21 Budget Discussion/Approval; Executive Committee Member at Large election (and announcement of election for Chair and Vice Chair at 9/23 meeting)	Rich Janssen, Kate Wilson
11:55 PM	Public Comment	Rich Janssen
12:00 PM	Wrap Up & Adjournment Next Meeting Dates/Locations, Sept 23, 2020 POLSON (tentative in person)	Rich Janssen; Kate Wilson

All Flathead Basin Commission (FBC) meetings are open to the public. The FBC will make reasonable accommodations for persons with disabilities who wish to participate in this public meeting. To request meeting information or accommodations, please contact Cassidy Bender (cassidy.bender@mt.gov or 406-542-5886) as soon as possible before the meeting date.

MEETING MINUTES

Meeting/ Project Name:		Flathead Basin Commission	
Date of Meeting:	July 8th, 2020	Time:	10am-12pm
Minutes Prepared By:	Cassidy Bender	Location:	Virtual-Zoom/Call in
List of Acronyms			
AIS	Aquatic invasive species	FBC	Flathead Basin Commission
BOR	US Bureau of Reclamation	FLBS	Flathead Lake Biological Station
BPA	Bonneville Power Administration	FWP	Montana Fish, Wildlife & Parks
BSWC	Big Sky Watershed Corps (AmeriCorps program)	GNP	Glacier National Park
CEMIST	Central Eastern MT Invasive Species Team	MCWD	Missoula County Weed District
CFC	Clark Fork Coalition	NPS	National Park Service
CRB	Columbia River Basin	NRCS	Natural Resource Conservation Service
CRC	Clearwater Resource Council	UC ³	Upper Columbia Conservation Commission
CSKT	Confederated Salish & Kootenai Tribes	UCLN	Upper Columbia Lakes Network
DEQ	Department of Environmental Quality	USACE	US Army Corps of Engineers
DNRC	Dept. of Natural Resources & Conservation	USFS	US Forest Service
eDNA	Environmental DNA	USFWS	US Fish & Wildlife Service
E & O	Education & Outreach	WLI	Whitefish Lake Institute
EPA	US Environmental Protection Agency	WRDA	Water Resources Development Act
EQC	Environmental Quality Council (Interim)	WRP	Western Regional Panel
1. Welcome and Introductions			
Rich Janssen (Chair)	Welcome. Rich opened the meeting. Confirmed quorum present (for voting purposes).		
Introductions (Roundtable)	Each participant introduced themselves including name, location and organization/interest that they are representing.		
2. Attendees			
<p>FBC (voting members underlined): <u>Rich Janssen</u> (CSKT), <u>Mike Koopal</u> (Whitefish Lake Institute/UC³), <u>Randy Brodehl</u> (Flathead County Commission), Mark Bostrom (DNRC Helena), <u>Jack Potter</u> (Governor-appointed member), Myla Kelly (DEQ), <u>Kurt Steele</u> (USFS), Kate Wilson (DNRC/FBC & UC³ Commission Administrator), <u>Ed Lieser</u> (Flathead Basin Commission), <u>Kathy Olsen</u> (DNRC Kalispell), <u>Casey Lewis</u> (City of Kalispell), Cassidy Bender (DNRC/FBC & UC³ Commission Coordinator), <u>Jeff Mow</u> (NPS Glacier National Park), <u>Steve Frye</u> (Governor Appointed), <u>Jim Simpson</u> (Lake County Conservation District), Jim Williams (Montana FWP), Mark Reller (BPA), <u>Dave Stipe</u> (Lake County Commissioner), <u>Lech Naumovich</u> (Flathead Conservation District), Jason Gildea (EPA)</p> <p>Absent: Jasmine Courville-Brown; Patrick Holmes, Dennis Philmon</p> <p>Public/Other: Rickey Schultz (HDR Engineering), Tom Bansak (FLBS), Phil Matson (FLBS), Jim Elser (FLBS), Abigail St. Lawrence (Attorney), Dean Sirucek (FCD), Emilie Henry (BSWC, City of Kalispell), Valerie Kurth (MT DNRC), Erin Sexton (FLBS), Megan Wampler (FLBS), Ryan Richardson (River Design Group)</p>			
3. Agenda and Notes, Decisions, Issues			
Presenter	Topic/Discussion		
Kate Wilson, Commission Administrator	<ul style="list-style-type: none"> Welcome to the Flathead Basin Commission's three new members. 		

<p>Approval of Minutes</p>	<ul style="list-style-type: none"> ○ Myla Kelly has been delegated to replace Tim Davis for DEQ. Myla manages water quality standards and modeling programs at DEQ and works closely with monitoring and TMDL staff. ○ Kurt Steele is the new Flathead National Forest Supervisor (replacing Chip Weber). He started his position in January, previously in Region 1, the Nez Perce National Forest as well as a short time in the Bitterroot National Forest. Forestry, Fish & Wildlife background, active in fire as well. ○ Lech Naumovich is replacing Dean Sirucek as the Flathead Conservation District representative/supervisor. Lech has training as a landscape and restoration ecologist with botanical work throughout the west. ● <u>Motion</u> to approve minutes from February 19th, 2020 meeting (Jim Simpson.) Seconded (Randy Brodehl.). All in favor. <i>Motion passes.</i> ● Overview of Agenda: Minutes, Staff Report (Budget, Grants, Projects), Agency Updates/Legislative Planning, Stormwater Project, Onsite Wastewater Treatment Committee.
<p>Staff updates/Budgets</p> <p>Kate Wilson, Commission Administrator</p>	<p>Staff Update</p> <ul style="list-style-type: none"> ● Kate and Cassidy split their time 50/50 with FBC and UC³ and are both working (mostly) remotely due to COVID-19. ● Notable activities: Meeting follow up and planning; Executive Committee planning and participation; support septic leachate committee and tech subcommittee; support stormwater project with City of Kalispell shared Big Sky Watershed member; support UC³ and FWP on AIS; monitoring Flathead Basin natural resource issues; grant and budget management (writing, reporting, tracking); follow legislative committees on topics of interest including the Local Government Interim Committee; Crown Managers Partnership steering committee (represent both Commissions); North American Invasive Species Management Association (board member, conference chair); PNWER co-chair of invasive species working group; County Assist Team (CAT) Public Information Officer & Liaison Officer; Western Regional Panel (chair of Fire AIS protocol committee); etc. ● Upcoming Events: <ul style="list-style-type: none"> ○ Local Government Interim Committee Meeting-July 15th: Virtual/Helena (Ed will be presenting on the septic committee progress) ○ Environmental Quality Council- July 29th/30th: Virtual/Helena ○ Pend Oreille Basin Commission- Aug/Sept: Sandpoint, ID ○ UC³ Fall Meeting- TBD/Oct: Virtual ○ Pacific Northwest Economic Region (PNWER) Conference rescheduled for August 2021: Big Sky, MT ○ Western Regional Panel (WRP)- Sept 16th-18th: Virtual ○ North American Invasive Species Management Association (NAISMA)-Oct 6th-8th: Virtual (hold in Missoula, Montana Sept 2021) <p>Budget & Finances:</p> <ul style="list-style-type: none"> ● FY20 Personnel: \$55,536/\$77,000 expended ● FY20 Operating: \$22,635/\$41,000 expended <ul style="list-style-type: none"> ○ \$20,175 (annual base budget) + \$20,000 (addition One-Time-Only) ○ Expended on: member travel, meetings, FBC materials, staff/office supplies, projects, sponsorships ○ Approved Line Item Budget (FY20): \$40,175 <ul style="list-style-type: none"> ▪ \$6,000 Member Travel/Meetings ▪ \$12,000 Website/Materials (pop up display, educational materials) ▪ \$3,000 Development/Printing of Annual Report ▪ \$6,000 Crown Managers Partnership, NAISMA, MT Water Summit

Mark Bostrom, DNRC

- **\$13,175** Other Projects/Contingency

- Notes on remaining balance: COVID cancellations of meetings, events, travel and activities. Delay to projects/orders and Cassidy started in January so only half of personnel for her position was used. Can accrue to contracts for FY21.

Sources of Funding FY21

- Natural Resources Operating Fund FY21:
 - **\$40,000**- base budget & one-time-only requested to be permanent (for total of \$40k operating budget)
 - **\$77,000**- personal services (staff salary, benefits- split with UC³) *FY20 balance to go to Windfall contract & Natural Resource Operations shortfall
- Natural Resources Operating Fund FY20:
 - **\$15,000**- accrual from FY20 (windfall contract- website & campaign development)
- Federal: **EPA Multipurpose State and Tribal Assistance Grant**
 - Established environmental statutes. Agencies/Tribes that co-regulate/administer federal environmental statutes
 - DNRC/FBS connection - Nonpoint Source Management (Clean Water Act)
 - **\$33,306/\$44,895** (includes DNRC indirect subtracted)
 - Signed agreement March 2020. Portion of BSWC position and projects
 - **New!** Opportunity for additional ~\$23k (GIS contract, septic leachate research, state-owned lands layer, potential temp writer, etc.)

Notes and Discussion

- Sponsorship is higher in FY20 than normal because the conferences were planned to be in MT so we were providing enhanced support. But all postponed - will now be transferred to the conferences in 2021 with the added perk of advertising for year.
- All our (state) funding comes from the natural resource operations (NRO) account, whose funding sources (oil & gas) are very low right now. We (DNRC) must come up with that shortfall. The plan is to move remaining balance from the FBC personal services to pay for shortfall.
- The funds not used for FY20 budget (~\$15,000) because of COVID will be accrued to our existing contract with Windfall to build a new website, etc. and should not impact the FY21 operations budget.
- Federal EPA grant is covering most of Emilie's stormwater project for 2 years; we are in the process of applying for a MWCC grant towards the second year of this project.
- Half of our operating budget has been 'One-Time-Only' (OTO) for the biennium. Now requested as 'permanent' funding and is going through the Executive Planning Process (EPP). The good track record will help by showing consistent management of that money for past few years.
- New EPA grant to cover the GIS mapping project/contract but will only cover expenses from the date we get the grant agreement signed (no retroactive expenses). We will need to cover more of contract with our operating budget.

Natural Resource Operations Account Overview- Mark Bostrom

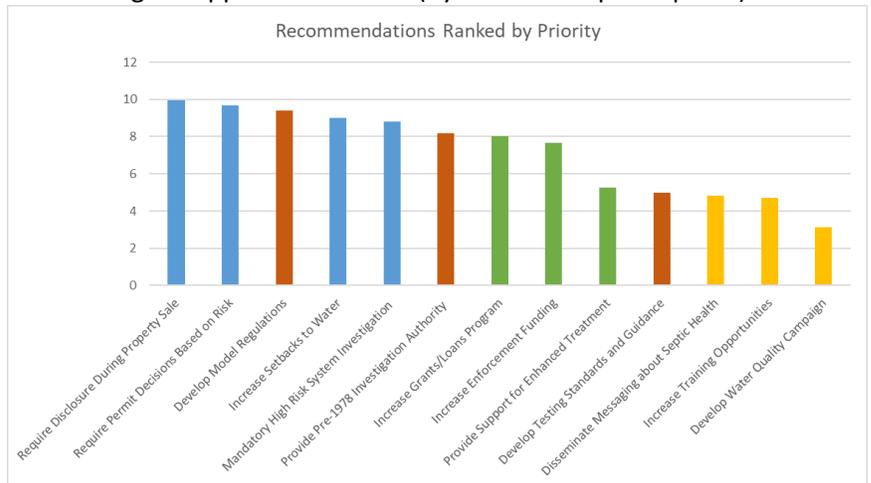
- The appropriation across all state agencies was \$6.1M. Oil revenues came in about \$1M lower than projected. The agencies will have to make up for that short fall: State Library, DEQ and DNRC.
- DEQ gets 72% of that appropriation. DNRC is about 20% (\$202,000 for biennium).

	<ul style="list-style-type: none"> • This breaks down further among the divisions: largest consumer of the funding is the director’s office, then CARDD (which includes FBC), Water Resources, Forestry and Trust Lands Division. • For the biennium, the CARDD projection is \$22,900 (for each year) in shortfall. We asked the FBC to have a reduction in this year’s funding (FY20). But Kate has been working on a way to avoid this by accruing the balance of operating for Windfall contract and we can put the savings in personnel services (~\$21k) to account for this shortfall w/o compromising operating funds for FY21. • For FY21 shortfall (likely similar), we want to make sure FBC is whole/covered as much as possible and will use CARDD for the rest if possible. <p>Proposed FY21 Budget:</p> <ul style="list-style-type: none"> • \$15,000 Septic Leachate Contract (to date), study and/or water quality monitoring to verify model <ul style="list-style-type: none"> ○ Options: <ul style="list-style-type: none"> ○ 1) Tech. subcommittee discussing options e.g. synthetic DNA, drones, thermal studies, nearshore monitoring, etc. ○ 2) build layer of state-owned/managed lands and facilities; and/or ○ 3) support SWCDM 319 grant project (potentially augment) • \$8,000 Education & Outreach, Water Quality Campaign, Biennial Report, Outreach Materials • \$5,000 Member travel and meetings • \$5,000 Conference/Meeting Sponsorships: Crown Managers Partnership, NAISMA, MT Water Summit, etc. • \$3,000 Stormwater Project (2nd year) • \$2,000 Staff Supplies/Travel • \$2,000 Other Projects/Contingency • \$40,000 Total Operating Budget
<p>Mark Bostrom, DNRC</p> <p>Agency & Legislative Updates</p>	<p>Other Agency Updates and Discussion</p> <ul style="list-style-type: none"> • Discussing with OPP and the Director changes to the state revolving fund law and water pollution control revolving fund. <ul style="list-style-type: none"> ○ EPA administered program: states are given an allotment of funds that they loan out to communities for waste water systems and drinking systems. ○ Fund is just shy of \$1B ○ EPA may be delayed by shutdowns of government. We are looking for bonds to cover periods when the federal government might be delayed. • Irrigation district law: irrigation districts have limited ability to incur debt to update/improve their systems. We are figuring out of a way for them to incur debt to improve the systems and have it paid back by the irrigation district members. • County debt issuance: a lot of the communities that are beginning to have issues that have unincorporated cities, counties do not have the ability to do debt issuances that a sewer improvement district would have. Going forward we would involve/reach out to the commissioners. • Sage Grouse funding runs out at the end of this fiscal year, will have to figure out how to keep that going.
<p>Emilie Henry, Big Sky Watershed Corps; Kate Wilson</p>	<p>Introduction: Kate</p> <ul style="list-style-type: none"> • Our BSWC member, Emilie’s, position is funded primarily by the EPA grant. Grant Components (2020-2022) <ul style="list-style-type: none"> ○ Big Sky Watershed Corps (partial, 2 years) ○ Stormwater Monitoring & Inventory Project

<p>Big Sky Watershed Corps Member Activities & Outreach Project</p>	<ul style="list-style-type: none"> ○ Education & Outreach: Rain Garden Initiative; Adopt-a-Drain program; Flathead watershed/stormwater curriculum; organize local river clean up event(s) ○ Utilize City of Kalispell as a Pilot for Dry-Weather Inspection of Outfalls <p>Project Updates: Emilie</p> <ul style="list-style-type: none"> ● Gathering stormwater infrastructure data for the urban and semi urban areas in the Flathead Basin <ul style="list-style-type: none"> ○ Complete datasets for Kalispell & Whitefish ○ Incomplete datasets for Columbia Falls, Hungry Horse, Coram, Lakeside, Bigfork & Evergreen ○ Expecting to receive data for Columbia Falls who is gathering their own stormwater data this summer (should receive by the fall) ○ Expecting to collect data for Polson, Evergreen, Lakeside, and Hungry Horse/Coram in the coming months ● Data Collection Campaign: <ul style="list-style-type: none"> ○ Soliciting volunteers to locate and characterize catch basins, storm manholes, and outfalls in urban areas of the Basin where the data is lacking. ○ Starting with Polson and Evergreen in August. Figuring out how catch basins are connected and to which outfalls they are running. ● Sampling: <ul style="list-style-type: none"> ○ Collected one sample in the beginning of May ○ Sampling the first flush during daylight hours is difficult and very rare- will likely be difficult to get the 4 samples before November following this methodology ○ May have to change the methodology to get these samples safely. Even if we must tweak the methods, we can still see what the weather was like during these events and interpret the data appropriately. ○ Created weather tracker to document weather in Kalispell, Whitefish, and Columbia Falls ● Rain Garden Initiative: Working with the Flathead Conservation District <ul style="list-style-type: none"> ○ Created resources to help homeowners plan their own gardens, including pre-made designs and native plants list ○ Have been working closely with homeowners to plan, design, and build rain gardens in Flathead County <p>Discussion/Questions:</p> <ul style="list-style-type: none"> ● Mike: Emilie is doing a great job. Question for Kate/Casey: Is the partnership for BSWC going to continue in the following years? <ul style="list-style-type: none"> ○ Emilie is in Kalispell and Casey is the supervisor, but we share hosting and funding responsibilities, we have funding for next year and Casey has been working on the MWCC grant application to cover the balance not covered by EPA grant (\$3600).
<p>Ed Lieser, FBC Vice Chair; Mike Koopal, Whitefish Lake Institute/FBC; Kate Wilson; Ryan Richardson, RDG</p> <p>Onsite Wastewater Treatment Committee updates</p>	<p>Onsite Wastewater Treatment Committee Update (Ed Lieser)</p> <ul style="list-style-type: none"> ● Large committee with participation from the state, municipal, advocacy/lobbyists, concerned citizens, (26+) ● Meet roughly monthly and we identified data needs early on. Have entered a 2-year contract through the RFP process for a GIS mapping project with River Design Group. ● Septic leachate was the highest priority for the FBC based on our strategic planning. We were engaged and involved in a study bill that was sponsored by Senator Fred Thomas from the Bitterroot on alternative septic systems. While our language was not included in the study bill, Rep. Fern was able to include it at the Local Government Interim Committee level that was assigned the study.

- **Goals & Objectives of the committee established:**
 - Increase participant knowledge of existing standards and processes for onsite wastewater systems in Montana and in other jurisdictions.
 - Participate in and make recommendations to the Local Government Interim Committee (via Flathead Basin Commission) for effective onsite wastewater treatment systems.
 - Work with local partners and regulatory authorities to ensure participation and engagement in process, development of products/materials and recommendations.
 - Identify any knowledge gaps, data needs and/or barriers to onsite wastewater system processes, implementation and functionality.
 - Explore options for increasing performance and sustainability of on-site wastewater treatment systems in the state, standards, incentives, and funding opportunities.
 - Identify emerging solutions and appropriate compliance mechanisms.
 - Develop and provide report with recommendations for approaches or actions related to onsite wastewater treatment systems to the Flathead Basin Commission for consideration.
 - Encourage the Flathead Basin Commission to provide public forum on committee findings and recommendation(s).
 - Seek more information on septage/land application requirements and practices. Ensure that any proposed recommendations acknowledge/address any potential septage issues.

- **Solutions/Recommendations Survey** (Kate Wilson)
 - 19 committee members participated in recommendations/solutions survey
 - A detailed report of survey results is in process but summary included here
 - We will use these results to better flush out the specific details (current conditions, economic impacts, short/med/long term approach, additional research needed, etc.) associated with each approach. This will help inform the Committee report, which will include a detailed analysis of each option.
 - See rankings of approaches below (by committee participants):



- There has not been a request or support for a statewide legislative change so at this point we are still investigating what the different approaches might be and the current status, support, legislation, funding, training, etc. of the potential changes vs current septic permitting and growth planning programs and policies.

- We are close to presenting to county commissioners and sanitarians, boards of health, planning and zoning, etc. in the basin. We opened the conversation with the municipal/tribal committee members for advice on how (and who) best to approach in terms of leadership with the goal of making them aware of effort/tools and learning more about their needs/concerns related to water quality and/or septic leachate/sewer issues in the basin.
- Ed Lieser presented to the Local Government Interim Committee on 7/1/20 with a slidedeck and notes prepared by staff regarding the FBC Committee work, survey findings and high level recommendations.

Technical Subcommittee Update (Mike Koopal)

- The Onsite Wastewater Treatment Committee created a ‘technical subcommittee’ to review reports that have been done on septic systems in the basin, discuss GIS model data/approach, and compare research/study proposals to validate/confirm the results of the model.
- They have been discussing the needs for different studies (such as Dr. Walters from Cornell on synthetic DNA testing + Tom Bansak at FLBS research on remote sensing and thermal imaging, eDNA), etc. The subcommittee will be weighing the options and providing a recommendation to FBC on which studies most valuable in pursuing.
- Kate and Cassidy are working to put together an annotated bibliography of research conducted in basin/state

GIS Mapping Project Update (Ryan Richardson)

- Pretty early on it was apparent that we didn’t have a handle on where in the valley the problems were and the characteristics that contribute to the leachate issue
- Ryan’s background in GIS has contributed to the existing data; he has created a way to make that data digestible in the GIS Risk Map
- First step was Flathead County because they already have a robust existing GIS database for septic permits. Identify existing age, distribution, and density in the basin. Then increase our committee’s understanding of how this problem persists spatially within Flathead County.
- This is a legacy problem, as we move further out from installation the problem will begin to grow. Chart included showing that in 10 years from now roughly 50% of the existing systems will be in the very high-risk section of the age chart.
- There is a distinct rise and fall of the installation/permitting of septic systems over the years based on the economic booms
- Individual risk factors:
 - Soil Suitability or soil treatment risk with help from Dean S. and Eric R.
 - Groundwater Layer
 - Slope
 - Surface Water
- These four factors are combined into a Physical Risk Model, which demonstrates the potential risk for septic treatment failure based on the physical conditions of the site
- Lends itself to be helpful for future planning and development and identifying areas where failure is likely
- Existing Data Needs:
 - Septic permit database (Lake County & CSKT)
 - Groundwater depth (GWIC database)
 - Soil survey data (NRCS)

	<ul style="list-style-type: none"> • The project is on going with a timeline that is dependent on the data acquisition and processing. Phase 2 will include the same layers and development process as Phase 1 (as long as data is available from Lake Co and CSKT). <p>Discussion/Comments:</p> <ul style="list-style-type: none"> • Can we expand this tool to include the whole Flathead Reservation? <ul style="list-style-type: none"> ○ If that is something the commission decides is beneficial, we can pursue, but will need more funding for GIS contract. ○ This work is valuable across the entire state, there are other watersheds where this is a major issue ○ This could be picked up and become a consideration for counties and work to strengthen our survey recommendations • Goal is to not just have a set of pretty maps. But have a spatial database for counties and communities to look at the physical risk of permitting. It will be available to share with anyone interested. • What is the existing funding for this funding and how far will that funding be able to go with this project? <ul style="list-style-type: none"> ○ Existing funding in contract is \$24,800. We have a 2-year contract with RDG and will have no problem spending the rest of the funding. We could explore state or federal grants for future phases, and potentially augment contract. • This is almost like a TMDL for groundwater because it's showing the loading of the soils and the concept of loading to groundwater is not something that is regulated by the EPA • This is incredible work. Sensitivity analysis: As your weighting these different factors and parameters, do you feel comfortable that the high nitrogen and high phosphorus is also at three (0-3)? Have we thought about ground-truthing for specific nutrient loading at sites? <ul style="list-style-type: none"> ○ Have not completed a sensitivity analysis, every layer right now is relatively equal in weighting. Pulling Eric R (DEQ) and Deans' knowledge and building it into the model. There is a lot of literature used to develop the recommendations. There are also areas of uncertainty whenever you are doing modeling; we will go into that within the final report of the project. • Suggestion of possible coordination between projects that we are not tapping into yet. Stormwater and the septic leachate systems are something that we can possibly combine for effectiveness and efficiency. <ul style="list-style-type: none"> ○ Overlap between septic leachate and stormwater conditions and soil conditions; if there is a high-risk area for septic leachate and it does not have quality stormwater infrastructure then you could have multiplied septic and stormwater leachate in your waterbodies. ○ This could build into our general water quality education & outreach campaign idea (non-point source outreach). • Anyone who is interested in furthering participation with this issue is welcome to join the onsite wastewater committee. Contact Kate or Cassidy to do so.
<p>Kate Wilson</p> <p>Business Items</p>	<p>Remaining Commission Business</p> <ul style="list-style-type: none"> • Remaining actions to resolve: FY21 Budget; E&O Committee; member at large on the Executive Committee, Public Comment & Adjourn • Creation of an Education and Outreach Campaign & Committee: there is a lack of a comprehensive water quality campaign for the state (Protect Our Waters for AIS, Keep Tahoe Blue examples).

	<ul style="list-style-type: none"> ○ We need to collaborate with partners and talk more about these non-point source pollution issues and get these messages out more to communities and individuals ○ Committee members do not need to be commission members apart from the chair – volunteers? <ul style="list-style-type: none"> ▪ There is value in creating a collective voice for the whole Flathead Basin, there is power in FBC taking the lead on messaging that can be conducted basin-wide. ▪ Jim S. (FWP) offering Dillon Tabish as a great resource ▪ Myla K. will work with DEQ staff to find someone that would be a good fit for the committee as well ○ <u>Motion</u> to create an Education & Outreach Committee with Lech N. and Casey L. as co-chairs (Mike). Seconded (Ed). All in favor. <i>Motion passes.</i> ● The executive committee needs a new member as Dean S. has retired. The ‘ExComm’ meets every two weeks and provides staff guidance and input on moving forward with details of ongoing projects (~45 min – 1 hr in length) <ul style="list-style-type: none"> ○ Current executive committee: Rich, Mike, Ed, Kathy, staff and one vacancy ○ <u>Motion</u> to add Casey Lewis as newest member of the Executive Committee (Ed). Seconded (Kathy). All in favor. <i>Motion passes.</i> ● Next commission meeting is September 23rd, 2020. We are tentatively scheduled for the KwaTaqNuk Resort and Casino in Polson with a tour of the Dam, we will also have a hybrid option for that meeting if it remains to be an in-person meeting. ● Recommendation to clean up language of the by-laws for chair and vice chair language. We will need to have an election for the chair and vice chair at that meeting. ● FY21 budget was amended to change the septic leachate line item. Amended by increasing \$5,000 to the septic leachate line item and decreasing funds from the stormwater project and staff supplies/travel. <ul style="list-style-type: none"> ○ <u>Motion</u> to approve FY21 amended Budget (Randy). Seconded (Jack). All in favor. <i>Motion passes.</i>
Public Comment	<ul style="list-style-type: none"> ● None
Kate Wilson	<ul style="list-style-type: none"> ● <u>Motion</u> to adjourn (Ed). Seconded (Myla). All in favor. <i>Motion passes.</i>
Wrap up & Adjournment	<ul style="list-style-type: none"> ● Meeting adjourned at 12:11pm.

4. Action Items				
Action		Assigned	Due Date	Status
1	Send out draft minutes	Kate Wilson Cassidy Bender	7/30/2020	Completed
2	Next meeting dates, location and logistics	Kate Wilson	8/15/2020	Completed
3	Provide list of conferences/sponsorships/organizations for executive committee for FY21 (\$3k available)	Kate Wilson Cassidy Bender	9/23/2020	In progress
EXISTING ACTION ITEMS FROM PREVIOUS MEETINGS				
4	Draft list of potential meeting topics for FBC	Kate Wilson	8/1/2020	In progress
5	Draft joint UC ³ letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020-21 season	In progress

6	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Agencies, Kate Wilson, Cassidy Bender	On-going	On-going
7	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson, Cassidy Bender	On-going	
8	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson		In progress
9	Address vacancies and reappointments on FBC –BC rep (ex-officio)	Kate Wilson	On-going	Completed with exception of BC

FLATHEAD BASIN COMMISSION

VIRTUAL ZOOM MEETING

September 23, 2020

AGENDA

9:30 AM	Welcome, Introductions, Confirm Quorum	Rich Janssen, CSKT (Chair)
9:40 AM	ACTION: Discussion/approval of DRAFT 7/8/20 Minutes	Kate Wilson, FBC staff
9:45 AM	What Have Staff Been Up To? Activities/Events; Budget and Grants; Projects; Website	Kate Wilson; Cassidy Bender, FBC staff
	ACTION: 2020 Sponsorships	
	ACTION: Bylaw Amendments	
10:20 AM	What Should We Expect From the 2021 Legislative Session? Planning for the Upcoming Session; Agency/Legislature Updates	Mark Bostrom, DNRC Toni Henneman, Legislative Services (<i>Invited</i>)
10:40 AM	How Is the Stormwater Project Going? Presentation of Work Plan for Stormwater Project	Casey Lewis, City of Kalispell; Emilie Henry, Big Sky Watershed Corps; Kate Wilson
11:05 AM	How is the Onsite Wastewater Treatment Committee Progressing? Committee Approach & Timeline. Legislative Connections.	Mike Koopal, Whitefish Lake Institute/FBC; Ed Lieser, FBC Vice Chair; Kate Wilson
11:15 AM	Synthetic DNA Overview & Project Concept	Dr. Walter, Cornell University (<i>invited</i>)
11:40 AM	Education & Outreach Committee Committee Approach & Deliverables. Next Steps.	Lech Naumovich, Casey Lewis and Kate Wilson
11:50 AM	ELECTION: Chair/Vice Chair	Kate Wilson
11:55 AM	Public Comment	Rich Janssen
12:00 PM	Wrap Up & Adjournment Next Meeting Dates/Locations, Doodle Poll Results 2021: January 20, March 31, August 25	Rich Janssen; Kate Wilson

*ACTION ITEMS INDICATED IN BLUE

We promote participation! All Flathead Basin Commission (FBC) meetings are open to the public and stakeholders. To participate in the upcoming virtual meeting, or to request special accommodations, please contact Cassidy Bender (cassidy.bender@mt.gov or 406-542-5886) as soon as possible before the meeting date.

MEETING MINUTES

Meeting/ Project Name:	Flathead Basin Commission		
Date of Meeting:	Sept 23rd, 2020	Time:	9:30am-12pm
Minutes Prepared By:	Cassidy Bender	Location:	Virtual-Zoom/Call in
List of Acronyms			
AIS	Aquatic invasive species	FBC	Flathead Basin Commission
BOR	US Bureau of Reclamation	FLBS	Flathead Lake Biological Station
BPA	Bonneville Power Administration	FWP	Montana Fish, Wildlife & Parks
BSWC	Big Sky Watershed Corps (AmeriCorps program)	GNP	Glacier National Park
CEMIST	Central Eastern MT Invasive Species Team	MCWD	Missoula County Weed District
CFC	Clark Fork Coalition	NPS	National Park Service
CRB	Columbia River Basin	NRCS	Natural Resource Conservation Service
CRC	Clearwater Resource Council	UC ³	Upper Columbia Conservation Commission
CSKT	Confederated Salish & Kootenai Tribes	UCLN	Upper Columbia Lakes Network
DEQ	Department of Environmental Quality	USACE	US Army Corps of Engineers
DNRC	Dept. of Natural Resources & Conservation	USFS	US Forest Service
eDNA	Environmental DNA	USFWS	US Fish & Wildlife Service
E & O	Education & Outreach	WLI	Whitefish Lake Institute
EPA	US Environmental Protection Agency	WRDA	Water Resources Development Act
EQC	Environmental Quality Council (Interim)	WRP	Western Regional Panel
1. Welcome and Introductions			
Rich Janssen (Chair)	Welcome. Rich opened the meeting. Confirmed quorum present (for voting purposes).		
Introductions (Roundtable)	Each participant introduced themselves including name, location and organization/interest that they are representing.		
2. Attendees			
<p>FBC (voting members underlined): <u>Rich Janssen</u> (CSKT), <u>Mike Koopal</u> (Whitefish Lake Institute/UC³), <u>Randy Brodehl</u> (Flathead County Commission), Mark Bostrom (DNRC Helena), <u>Jack Potter</u> (Governor-appointed member), Myla Kelly (DEQ), <u>Kurt Steele</u> (USFS), Kate Wilson (DNRC/FBC & UC³ Commission Administrator), <u>Ed Lieser</u> (Flathead Basin Commission), <u>Kathy Olsen</u> (DNRC Kalispell), <u>Casey Lewis</u> (City of Kalispell), Cassidy Bender (DNRC/FBC & UC³ Commission Coordinator), <u>Steve Frye</u> (Governor Appointed), <u>Jim Simpson</u> (Lake County Conservation District), Jim Williams (Montana FWP), Mark Reller (BPA), <u>Dave Stipe</u> (Lake County Commissioner), <u>Lech Naumovich</u> (Flathead Conservation District), Jason Gildea (EPA)</p> <p>Absent: Jasmine Courville-Brown; Patrick Holmes, Dennis Philmon, Kurt Steele, Jeff Mow</p> <p>Public/Other: Tom Bansak (FLBS), Emilie Henry (BSWC, City of Kalispell), Valerie Kurth (MT DNRC), Sam Bourett (FWP), Toni Henneman (MT Legislative Services), Dr. Todd Walter (Cornell), Aaron Losing (Kalispell WWTP), Mikaela Richardson (FCD BSWC), Jadin Doerr (Little Bitterroot Lake Association LEAP), Onno Wieringa (Flathead Citizen), Breanna Carr (Morrison-Mairele), Hope Stockwell, Tim Burton (MT Cities and Towns), Rachel Malison (FLBS)</p>			
3. Agenda and Notes, Decisions, Issues			

Mark Bostrom,
DNRC

- FY20 Operating: **expended \$9,890/\$75,000**
 - \$20,000 (annual base budget) + \$20,000 (addition One-Time-Only, OTO)
 - **\$20,000 (accrued to RDG) + \$15,000 (accrued to Windfall)**
 - Expended on RDG contract, stormwater project (data plan), member travel, website updates, sponsorships
 - Increase in balance: Natural Resource Operating (NRO) account shortfall (less paid for than anticipated out of FBC FY20 funds)
 - Adds \$35,000 to FY21 budget
 - \$20,000 accrued to RDG contract (septic leachate risk map/GIS)
 - \$15,000 accrued to Windfall contract (water quality campaign, website, etc.)

Sources of Funding FY21

- Natural Resources Operating Fund FY21:
 - **\$40,000**- base budget & OTO requested to be permanent (operating budget)
 - **\$77,000**- personal services (staff salary, benefits- split with UC³)
- Natural Resources Operating Fund FY20:
 - **\$20,000**- accrual from FY20 to RDG contract
 - **\$15,000**- accrual from FY20 to Windfall contract
 - Accrual is a carry forward of money to the next year, the spendable amount is increased but does not change the base budget amount.
- Federal: **EPA Multipurpose State & Tribal Assistance Grants**
 - **\$12,217/\$51,000**- EPA grant *spent* (stormwater project, 2 years)
 - **\$26,000**- *Pending* EPA grant (septic leachate GIS mapping contract)

Proposed (Revised) FY21 Budget:

FY21 Proposed (Revised) Budget

FBC FY20 LINE ITEM BUDGET		
AMOUNT RECOMMENDED	CATEGORY	NOTES
PREVIOUS: \$15,000 W/Accruals: \$35,000	Septic Leachate contract (to date), study and/or water quality monitoring to verify model, report generation	May include: 1) GIS monitoring contract (\$24,800 value); 2) augment synthetic DNA pilot study to validate model results (Whitefish Lake, Echo Lake TBD); 3) build layer of state-owned/managed lands and facilities; 4) additional studies (drones, thermal studies, nearshore monitoring, etc.); 5) report writing/formatting/design. <i>Augment EPA grant (pending).</i>
PREVIOUS: \$8,000 W/Accruals \$23,000	Education & outreach, Water Quality Campaign, Biennial Report, outreach materials	Includes: 1) Development of Water Quality campaign and associated materials; 2) Materials for FBC tabling, events, activities; 3) Building new website at flatheadbasincommission.mt.gov (vs. .org); 4) Biennial Report – 2019/2020 due to Governor’s Office by Fall 2020
PREVIOUS: \$3,000 NEW: \$2,000	Stormwater Project (2 nd year)	May include: dataplan for tablet, additional sampling, ½ of BSWC position, professional development, etc. <i>Augment EPA grant for 2nd year of project.</i>
PREVIOUS: \$5,000 NEW: \$2,000	Member travel and meetings	Includes member travel, facility fees and refreshments for meetings
PREVIOUS: \$5,000 NEW: \$8,500	Conference/meeting sponsorships	See sponsorship opportunities in packet. Prioritize MT-based events. Examples: MWCC Stream to Summit, Crown Managers Partnership, MT Lakes Conference, Stormwater Conference, etc.
\$2,000 (same)	Staff Supplies/Travel	E.g. desk, computer, cell phone, printing, training, some travel on FBC-related business
PREVIOUS: \$2,000 NEW: \$2,500	Other/Contingency funds	Associated project costs or materials as needed
\$40,000 W/Accruals: \$75,000	TOTAL OPERATING BUDGET	Includes \$35,000 accrued from savings (personnel/operating) in FY20

Proposed Sponsorships: FY21

	<ul style="list-style-type: none"> • See Executive Committee’s sponsorship prioritization in packet. <ul style="list-style-type: none"> ○ \$1,000- MWCC Stream to Summit (virtual conference, committed) ○ \$1,500- North American Lake Management Society Conference ○ \$2,750- Montana Stormwater Conference (Gold)- Missoula, May 2021 ○ \$3,250- Crown Managers Partnership (annual)- Steering Committee ○ \$8,500 TOTAL in sponsorships FY21 • We have put priority into Montana based events/conferences or international conferences that are being held in Montana. • Crown Managers Partnership counts on agency contributions for funding, staff sits on steering committee, we support with projects as well. • <u>Motion</u> to approve revised FY21 budget (Casey Lewis). Second (Lech Naumovich). All in favor. <i>Motion passes.</i> <p>Bylaw amendments:</p> <ul style="list-style-type: none"> • See meeting packet for specific by law changes. Main changes were to clean up confusing language of IV: Officers and Duties, item D. <ul style="list-style-type: none"> ○ New language: “The Commission may, with the agreement of the Chair and Vice Chair, vote to renew or extend the terms of either or both, for an additional two-year term.” • Executive committee has oversight authority including expenditure of funds and project progression, anyone can attend bi-weekly Executive Committee meetings (every other Tuesday at 10am). • Addition to bylaws: 75-7-308. Cooperation with other agencies and organizations. “To fulfill its duties, the commission shall develop and maintain cooperative programs with federal, state, provincial, tribal, and local agencies or organizations that are responsible for natural resource management and monitoring in the Flathead basin. Participating federal and provincial agencies must be requested to provide adequate funds to participate on the commission and to monitor resources within their areas of responsibility.” • Existing language on meeting locations: MCA 75-7-304(7) FBC is, "to meet at least semiannually within the Flathead basin, alternating the meeting site between the cities of Kalispell and Polson." • <u>Motion</u> to approve amended bylaws (Dave Stipe). Second (Steve Frye). All in favor. <i>Motion passes.</i>
<p>Mark Bostrom, DNRC</p> <p>Agency & Legislative Updates</p>	<p>Agency Updates and Discussion</p> <ul style="list-style-type: none"> • DNRC is asking for the one-time-only \$20,000 per year to be made permanent. • We are seeking additional monitoring authority in the state revolving fund. • Found issue in cases were the federal government continue to operate on resolutions regarding the assistance grant revolving fund for water systems and water treatment plants. The lack of certainty of the state assistance grant arriving at a certain time tends to disrupt construction timelines of big projects. We are looking for the ability to write general obligations bonds to keep construction going, which will be paid back by the city, knowing the federal money will come through eventually. • DEQ is the lead agency for engineering design and DNRC operates the financial arm of the state revolving program. • Debt issuance for irrigation districts and counties, irrigation law is quite old (1930s). DNRC is working on cleaning up the law so irrigation districts have ability to improve their infrastructure through the renewable resource grant program. • Other CARDD legislative bills are UC³ and the MISC:

Toni Henneman,
Legislative Services
Division

- UC³ legislative committee has taken up findings from law review. Bigger issue is that FWP do not have explicit authority for aquatic plants as no real AIS list exists like the noxious weed list. This agency bill is requesting the creation of an AIS list.
- The other two legislative items will not be agency bills, but will may be carried by legislators from UC³
 - 1) Pull the plug rule
 - 2) Increase ticket amount for inspection station drive-bys
- Natural Resource tax revenues have seen a long steady decline in the coal severance tax revenues which conservation districts are very dependent on. We have seen a soft revenue collection on the oil and gas tax (oil war between Saudi Arabi and Russia). Soft revenue collections in the mining tax as well which feeds into natural resource ops and projects account. We have been able to take those shortfalls internally as much as possible so outside forces (CDS and attachments) don't have to take the brunt of it. This will continue to be a topic in the next session
- Do you expect to see the coal severance tax fund being touched this session? Hopefully not the trust as that is the core of many things. Several coal tax bonds depend on that trust being whole, don't see it being a target.
- The spendable account funds government, conservation districts, and the library. Distribution to spendable portion was set in stone in a recent previous session that gave a percent of allocation to CDS and libraries. Any legislature can change previous legislature so that is still unknown.

Local Government Interim Committee Updates

- Committee wrapped up work Sept 9th. Tasked with SJ3 study to look at alternative septic systems. Expanded the scope of the study with issues on old or failing septic systems.
- Mike and Ed presented on our Onsite Wastewater Treatment Committee's progress and projects.
- Two conclusions:
 - 1) Send a letter to DNRC requesting expanded grant opportunities through the grant program to replace septic systems. Funding opportunities for landowners for septic replacement is limited, bolster this and implement education and outreach to let landowners knows.
 - 2)PD8: Request draft legislation looking at requiring DEQ to mandate a regular schedule to review experimental systems. Every 2 years DEQ will have to inspect systems that were granted deviation. Goal is to see which experimental systems can work and can be moved to approved systems. Draft is on the committee website and linked in the final report of SJ3.
- Director Tubbs received the letter and are deciding how they will respond.
 - There was a prior new proposal in the executive planning process requesting a \$200,000 general fund bump to go toward septic issue and RDG program to establish a specific septic grant program using the general fund. This was denied.
 - Other options: HB6 has smaller line items that are typically renewable resource planning grant projects, watershed grants, irrigation development grants, etc. We could identify a specific one for septic systems rather than running through the private grant program that could be used for various things. If it looks like there are enough funds to support that we could write that into the HB6, or we could amend in the legislature.
- Multiple individual legislators expressed interest in individual legislation.
- The session this year will be interesting with some big topics. Waiting to see with leadership changes after the election.
- Improving digital services to be able to broadcast sessions and make every meeting zoom capable.

	<ul style="list-style-type: none"> • Presentation about Lewis and Clark Septic Inspection and Maintenance Program to Local Gov Summary: SJ3 final report has a piece about this topic as well. They presented on how they set up the program, what it does, and any successes or failures. Committee didn't act on this presentation it was more informational, presenting an option that could be implemented at the local level. There was some public comment against point of sale inspections.
<p>Emilie Henry, Big Sky Watershed Corps; Kate Wilson</p> <p>Big Sky Watershed Corps Member Activities & Outreach Project</p>	<p>Introduction:</p> <ul style="list-style-type: none"> • Our BSWC member, Emilie's, position is funded primarily by the EPA grant. Grant Components (2020-2022) <ul style="list-style-type: none"> ○ Big Sky Watershed Corps (partial, 2 years) ○ Stormwater Monitoring & Inventory Project ○ Education & Outreach: Rain Garden Initiative; Adopt-a-Drain program; Flathead watershed/stormwater curriculum; organize local river clean up event(s) ○ Utilize City of Kalispell as a Pilot for Dry-Weather Inspection of Outfalls ○ Casey: Emilie has been awesome, has learned so much and taken the project to new heights and gotten great results. <p>Project Updates:</p> <ul style="list-style-type: none"> • Gathering stormwater infrastructure data for the urban and semi urban areas in the Flathead Basin. • Data Collection Campaign: <ul style="list-style-type: none"> ○ Solicited volunteers to locate and characterize catch basins, storm manholes, and outfalls in Polson in August. ○ Figuring out how catch basins are connected and to which outfalls they are running. ○ Digitized and added to stormwater inventory. ○ One of the volunteers was a Polson City commissioner and was very excited to encourage the community to use this data now that they have it. ○ It was a low-cost awesome event and has potential to be a reoccurring effort. ○ Got great press on this event, see NBC Montana article here. • Monitoring, Inspections, & Sampling: <ul style="list-style-type: none"> ○ Performed dry-weather outfall inspections on 20 sites. Method could be implemented Basin wide. ○ Collected one sample in the beginning of May. ○ Sampling the first flush during daylight hours was difficult and very rare- will likely be difficult to get the 4 samples before November. ○ May have to change the methodology to get these samples safely. Even if we must tweak the methods, we can still see what the weather was like during these events and interpret the data appropriately. ○ Created weather tracker to document weather in Kalispell, Whitefish, and Columbia Falls • Rain Garden Initiative: Working with the Flathead Conservation District <ul style="list-style-type: none"> ○ Created resources to help homeowners plan their own gardens, including pre-made designs and native plants list ○ Have been working closely with homeowners to plan, design, and build rain gardens in Flathead County. ○ 5 completed so far and are expecting 7 more to go in this fall. 2 webinars were hosted this summer to educate on the rain gardens implementation: watch here. ○ Provide residents with a fixed amount of funding toward native plants to take off the financial burden on homeowners. FCD received a 319 grant to continue to supplement funding for projects like these.

- View two news articles on the Flathead Rain Garden Initiative from [NBC Montana](#) and the [Flathead Beacon](#).
- Stormwater Inventory- Locations within the basin that we currently have infrastructure data for.
 - Whitefish data: catch basins, outfalls, and manholes. Symbolized by ownership, direction of flow included. Individual drainage basins that drain to associated outfall.
 - Kalispell data: massive data set with similar information
 - Evergreen does not have a city owned sewer system, there are some private stormwater systems and dry wells. Collected data using same methodology from the Polson volunteer event.
 - Bigfork: data set provided.
 - Lakeside: does not have city owned stormwater system, data was collected with FCD BSWC member of private systems.
 - Polson: Data collected from volunteers and supplemented from former engineers with the City of Polson.
 - Ronan: data for Ronan was provided by engineering consultations.
- Conclusions:
 - Became very clear that ownership is variable across the basin. Some areas are only state- and privately-owned infrastructure. Some areas have no preemptive maintenance plan causing them to be reactive instead of proactive. Some areas have older or private systems that do not have data from the implementation of those systems and therefore have no maintenance plan either.
 - Columbia Falls are currently digitizing their data.
 - MDT owned infrastructure is another source to tap into.
 - This is meant to be a dynamic tool rather than a static snapshot in time. We do not want this data to be put on a shelf until it is obsolete. Hope is that this data is used and expanded in years to come.
- Outfall Prioritization Ranking:
 - Ranked according to drainage basin area.
 - Will get into specific pollutants and land use in Phase 2. Phase 1 is broader, focusing on impairment classifications and rankings.
 - 11 high priority areas were identified: 7 in Kalispell, 3 in Whitefish, 1 in Polson
 - Major conclusions:
 - It was difficult to compare with differences in ownership, maintenance, and documentation.
 - Would like to add in other parameters that would affect the potential for pollution like density of septic systems in the area.
- Recommendations:
 - Additional data will polish existing rankings and will allow to include additional parameters (rate of filtration, land use, pollutants, etc.).
 - Create a technical sub-committee to iron out these parameters. Similar body to the technical septic committee would be extremely helpful in advising the continuation of prioritization rankings.
 - She'll be back for 2021: Phase 2!

Discussion/Questions:

- Rail spills and possible spills from industry would be great to include, curious if data has been shared with disaster and emergency services so they have in case of emergencies. Good idea as we are hoping to have a rail safety panel in a future meeting.

	<ul style="list-style-type: none"> • Dr. Walter: Emilie is spot on with the importance of updating the data set, things are changing all the time and we would hate to have to go back and update things again. Important to find people that will take this over and keep this information up to date. • Emilie: Will be creating a story map as an easily updatable tool that everyone can collaborate on within the basin • Technical Committee question- we have a tech for septic leachate effort, do we form multiple committees, or should we have more of a long standing tech committee that would be fluid and bring in/out people but maintain a chair that would provide consistency over time? <ul style="list-style-type: none"> ○ Kathy: Should be one committee, people can come in and out as the topic changes. But a mutual set of people would be most efficient. ○ Mike: We could develop a broader base with that tech subcommittee. As we move through different subjects the chair can reach out to other experts to include. ○ Creating committees is not in the bylaws so we are just operating as a majority vote to create/continue committees. Executive committee can talk this over separately to flesh out the idea of a tech subcommittee. ○ Steve: Charter of sorts that lays out the objectives and expectations for the committee, so they have direction and some flexibility. On-going water quality committee, whether that should be a standalone committee or folded into the tech subcommittee. • ACTION: Add creation of a standing technical subcommittee for various projects to the next executive committee agenda. • Steve: Exceptional piece of work to get us data. It is important to know how different municipalities treat stormwater in terms of policies/procedures and to identify if there is consistency in the management/maintenance regimes. Huge benefits of Emilie’s work to demonstrate the importance of the cumulative effects of sources of potential pollution to our waterbodies. • Mark: Sharing with DES, thinking about how to most effectively use Emilie’s work. When windfall completes the website is there potential that we can deploy some of these GIS products to the FBC website so we can point to that instead of distributing to all these different parties? <ul style="list-style-type: none"> ○ Possibly link up with the Flathead County GIS website to distribute this information through that avenue as well. • Project is timely with where we are with development as a basin with talk about watershed approaches toward stormwater and water quality, we have potential to do things differently than they were done in other areas. This information has potential to make impacts to the future of our basin/water quality. • Dr. Walter: The east coast did not keep track of things as they were built out and they are having to go back and redo things now.
<p>Ed Lieser, FBC Vice Chair; Mike Koopal, Whitefish Lake Institute/FBC; Kate Wilson</p> <p>Onsite Wastewater Treatment Committee updates</p>	<p>Onsite Wastewater Treatment Committee Update (Ed Lieser)</p> <ul style="list-style-type: none"> • Participation: state, municipal, advocacy/lobbyists, concerned citizens (26+) • Previous Meetings: Dec 18th, Feb 20th, April 2nd, May 29th, July 1st • Data Needs: GIS/Mapping- risk/vulnerability map; potential verification of model/monitoring • Meet roughly monthly and we identified data needs early on. Have entered a 2-year contract through the RFP process for a GIS mapping project with River Design Group. • Status Update: <ul style="list-style-type: none"> ○ Applied for EPA grant for \$26k to fund synthetic DNA study (Dr. Todd Walter) ○ Formed Technical Subcommittee to discuss/recommend path forward.

- GIS/Mapping project, phase 2 (2020-2021): Southern end of lake- no electronic data, new method for that portion of the model.
- Local Government Interim Committee presentation 7/15
- Annotated bibliography of Montana research/studies
- State lands/infrastructure inventory (& associated septic/wastewater policies)
- Committee Report with Recommendations.

Technical Subcommittee Update (Mike Koopal)

- GIS risk assessment model is currently underway. We are having difficulties getting the data for Lake County & CSKT and are currently working through how to deal with this.
- Staff is working on an annotated bibliography for water quality studies/research in the Flathead Basin, greater Montana, and beyond.
- Committee is looking to additional studies that can help describe information here in the basin: remote sensing imagery, eDNA, and synthetic DNA (Dr. Walter).
- Lake Mary Ronan does not have septic information because it is in Lake County.
- We have settled on Whitefish Lake for synthetic DNA study for multiple reasons:
 - 1) WLI did a study back in 2011-2012 that created a risk assessment map and RDG data correlates with that risk assessment map.
 - 2) We have more specific data on Whitefish Lake than most other waterbodies in the basin.
 - WLI (pro-bono) can do the field investigation here in MT and then ship the samples to Dr. Walter on the east coast.

Synthetic DNA Overview & Project Concept (Dr. Todd Walter, Cornell University)

- Nonpoint Source Challenge: pollution flows to waterways, we try to see where it comes from but it's coming from everywhere. There are various tracer options, but challenges arise with limited number of uniquely different tracers and some tracer compounds already being abundant in the environment, etc. Using synthetic DNA provides a compound that has lots of individual tracers that can be distinguished from one another in the landscape.
- Crash Course in DNA:
 - 4 chemical compounds that distinguish 1 piece of DNA from another (base pairs)
 - Base pairs: A, T, C, G are all different bandwidths in the bar code which make the bar code distinguishable from any another one.
 - Human genome: ~3 million base pairs
 - Smallest known genome: ~600,000 base pairs
 - We use ~100 bases= 1.6 + 60-zeros of unique combinations.
- How does it work: DNA in aquatic environments does not last that long (~month)? We wrap them in a biodegradable plastic sphere to protect it from the environment (smaller than microplastics).
- The size, surface, properties, density, and degradation rate of the microsphere can be controlled during fabrication.
- Because we use DNA to label or tag our tracers, we can make nearly limitless uniquely distinguishable tracers with identical transport properties.
- The tracers can be placed at different places in the landscaper (flushing down the toilets of many residents). Then water samples are collected at the watershed outlet. waterbody and collect water samples within an established time frame. Samples are analyzed on qPCR to determine which traces were in the water sample and their abundance. The results are used to interpret the hydrologic connections between the landscape and the stream.
- Skeptical if it would work so they started with experiments small (6 inches tall, 6 feet, etc.) Upscaled to rivers and streams (.5 mile to a mile long) Then went to an airplane

	<p>crash site in Sweden to run test on how fast the jet fuel would run into the glacier (kilometer between test sites and tracer implementation).</p> <p>Questions/Comments:</p> <ul style="list-style-type: none"> • The assumption is that the tracers will move through the soil similarly to the pollutants that we are concerned about (phosphorous and nitrogen). Level 2 systems filter pollutants. Is this true? <ul style="list-style-type: none"> ○ They move through the soil as bacteria does, unless there is a UV system that is killing bacteria the tracer would move get through and pollutants wouldn't. Transformations can be made to some pollutions that tracers would not be affected by. Tracers are not going to move in as great of abundance as nitrogen does and they would move faster. • Tech subcommittee getting together to work out scope of work details. We received the EPA grant that will be the funding this project.
<p>Kate Wilson;</p> <p>Co-Chairs: Lech Naumovich; Casey Lewis</p> <p>Education & Outreach Committee</p>	<p>Education & Outreach Committee</p> <ul style="list-style-type: none"> • We had steering committee meeting with co-chairs last week. Setting committee up a little differently regarding the Water Quality campaign. Concept: work with partners in the basin that do similar work to get feedback/ideas to implement a large-scale basin wide water quality campaign that could be an umbrella to the different issues we are seeing in the basin. <p>Status/Objectives:</p> <ul style="list-style-type: none"> • Convene stakeholder team to develop water quality campaign for Flathead Basin (project) <ul style="list-style-type: none"> ○ Solicit buy-in for concept ○ Nov 2020- partner meeting to set goals and timelines ○ Campaign logo/look & feel/materials would be available to all partners to use free of charge ○ Increase consistency and effectiveness of messaging ○ Build respect and conservation attitudes ○ Change problematic behaviors ○ Address multiple water quality objectives and topics • Support efforts to build new website • Support efforts to develop new education and outreach materials • ACTION: Send FBC E&O meeting invite/introduction email to water quality partners in the basin. <p>Discussion:</p> <ul style="list-style-type: none"> • Will develop scope/mission to have the most contact points in which everyone should feel comfortable providing suggestions and insight to use E&O strategically. • Long list of folks to reach out to, if you have ideas or suggestions let us know. • Basin wide campaign, FBC website would be the home where materials could be downloaded and used basin wide from other agencies.
<p>Commission Chair/Vice Chair Election</p>	<ul style="list-style-type: none"> • Rich Janssen (Chair)- We are doing some amazing and new things I am excited about. I would like the opportunity to continue for at least two years to continue these important projects. Thank you for the opportunity. • Ed Lieser (Vice-Chair): It is an honor to help in anyway, I am dedicated to the FBC mission and am truly excited about work with the stormwater and septic leachate group. It has been great working with the staff and the executive committee functions very well. I will do everything I can to help move the Flathead Basin Commission forward. • Election options: renew both chairs for a two-year term or we can move forward with a new election.

	<ul style="list-style-type: none"> • <u>Motion</u> to re-elect both chair and vice chair to their respective positions (Jim Simpson). Seconded (Jack Potter). All in favor. <i>Motion passes.</i>
Public Comment	<ul style="list-style-type: none"> • None
Kate Wilson Wrap up & Adjournment	<ul style="list-style-type: none"> • Next meeting dates (2021): <ul style="list-style-type: none"> ○ Winter- Jan 20th (virtual) ○ Spring- March 31st (TBD/likely virtual) ○ Summer- August 25th (TBD/likely virtual) ○ Meeting dates will be updated on the website. ○ Contact us ahead of time for zoom/call in information has been working well. • <u>Motion</u> to adjourn (Lech). Seconded (Jack). All in favor. <i>Motion passes.</i> • Meeting adjourned at 12:02pm.

4. Action Items				
Action		Assigned	Due Date	Status
1	Send out draft minutes	Kate Wilson Cassidy Bender	10/07/2020	Completed
2	Next meeting dates, location and logistics	Kate Wilson	9/29/2020	Completed
3	Add creation of a standing technical subcommittee for various projects to the next executive committee agenda.	Kate Wilson Cassidy Bender	9/23/2020	Completed
4	Send FBC E&O meeting invite/introduction email to water quality partners in the basin.	Kate Wilson Cassidy Bender	10/07/2020	Completed
EXISTING ACTION ITEMS FROM PREVIOUS MEETINGS				
4	Draft joint UC ³ letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020-21 season	In progress
5	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Agencies, Kate Wilson, Cassidy Bender	On-going	On-going
6	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson, Cassidy Bender	On-going	On-going
7	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson	On-going	On-going
8	Address vacancies and reappointments on FBC –BC rep (ex-officio)	Kate Wilson	On-going	Completed with exception of BC