



Flathead Basin Commission

Meeting Packet

Wednesday, September 8th 2021

10:00am-3:00pm MST – KwaTaqNuk Resort, Polson/Virtual

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Location: KwaTaqNuk Resort
(49708 US-93, Polson, MT)
Date: September 8, 2021
Time: 10:00 AM – 3:00 PM

FLATHEAD BASIN COMMISSION 9/8/21 Meeting Agenda

- I. 10:00 am: Call to order/Welcome & Introductions**
– Rich Janssen, Chair; Kate Wilson, Commission Administrator; Cassidy Bender, Commission Coordinator; All (name/organization or affiliation)
- II. 10:15 am: Welcome New FBC Members** – Rich Janssen; Kate Wilson
- III. 10:30 am: Commission Business** – Kate Wilson; Cassidy Bender
 - Staff Presentation: Activities, Projects, Committees and Programs
 - ACTION: Review/Approve FBC Minutes (3/31/21)
 - ACTION: Discussion/Approval FY22 FBC Operating Budget
 - ACTION: Montana Waters Campaign concept/launch
 - Strategic Plan/Setting Priorities Approach/Discussion (winter 2021/2022)
- IV. 11:15 am: FBC PROJECT PRESENTATION: Stormwater Assessment & Mitigation, Phase II**
– Emilie Henry, Big Sky Watershed Corps/FBC/City of Kalispell
- V. 11:35 am: FBC PROJECT PRESENTATION: Septic Leachate Projects**
– Mike Koopal, Whitefish Lake Institute; Ryan Richardson, River Design Group; Jillian Henrichon, Big Sky Watershed Corps/MACD; Kate Wilson
- VI. 12:15 pm BREAK FOR LUNCH** (provided)
- VII. 1:30 pm: PRESENTATION: ARPA grants for water/sewer infrastructure**
– Autumn Coleman, DNRC
- VIII. 2:00 pm: PRESENTATION: CSKT Compact Implementation**
– Arne Wick, DNRC; Seth Makepeace, CSKT
- IX. 2:40 pm: ELECTION: Vice Chair, Member at Large (Executive Committee)**
- X. 2:50 pm: WRAP UP, NEXT STEPS & JAN 26 MTG TOPICS**
– Kate Wilson
- XI. 3:00 pm: ADJOURN**
- XII. 3:15-5:00 pm: SOCIAL @ Lakers Patio** (110 Main St, below Valley Bank)

MEETING MINUTES

Meeting/ Project Name:	Flathead Basin Commission		
Date of Meeting:	March 31st, 2021	Time:	1:00pm-4:00pm
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)	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

Ed Lieser (Vice-Chair)	Welcome. Ed opened the meeting. Confirmed quorum present (for voting purposes).
Introductions (Roundtable)	Each participant introduced themselves including name and organization/interest that they are representing.

2. Attendees

FBC (voting members underlined): Ed Lieser (Flathead Basin Commission), Mike Koopal (Whitefish Lake Institute/UC³), Kathy Olsen (DNRC Kalispell), Jack Potter (Governor-appointed), Jasmine Courville-Brown (CSKT/Citizen), Steve Frye (Governor-appointed), Casey Lewis (City of Kalispell), Randy Brodehl (Flathead County Commission), Lech Naumovich (Flathead Conservation District), Sam Bourret representing Jim Williams (Montana FWP), Mark Reller (BPA), Bill Dykes (BOR), Peter Brumm (EPA), Kate Wilson (DNRC/FBC & UC³ Commission Administrator), Cassidy Bender (DNRC/FBC & UC³ Commission Coordinator), Emilie Henry (FBC BSWC, City of Kalispell), Jillian Henrichon (Flathead Wastewater Partnership, BSWC)

Absent members: Rich Janssen (CSKT), Dave Stipe (Lake County Commissioner), Jim Simpson (Lake County Conservation District), Jeff Mow (Glacier National Park), Kurt Steele (USFS), Michael Freeman (Governor's Office), Myla Kelly (DEQ), Mark Bostrom (DNRC Helena)

Public/Other: Ryan Richardson (RDG), Cynthia Ingelfinger (WLI), Tom Bansak (FLBS), Rachel Malison (FLBS), Jim Baker (Friends of Lake Mary Ronan), Lynn Maas (FLMR), Jim Elser (FLBS), Monica Elser (FLBS), Stephanie Hummel (FLBS), Keaton Martin (FLBS), Erin Sexton (FLBS), Ed Meece (Polson City Manager), Valerie Kurth (DNRC), Roger Smith (Flathead Lakers), Hailey Graf (FCD), Samantha Tappenbeck (FCD), Mayre Flowers (Citizens for a better Flathead), Onno Wieringa (Flathead Lakers), Chris Romankiewicz (DEQ), Joe Bouroncle, Mary T. McClelland (West Glacier), Rickey Schultz (HDR Inc.), Nanette Nelson (FLBS), Sharon Bengston (Citizen)

Media:

Heidi Desch (Whitefish Pilot)

3. Agenda and Notes, Decisions, Issues	
Presenter	Topic/Discussion
Kate Wilson, Commission Administrator Approval of Minutes	<ul style="list-style-type: none"> • Motion to approve minutes from Jan 19th, 2021 meeting (Ed). Second (Kathy). All in favor. <i>Motion passes.</i> • Overview of Agenda: Approve Minutes, Staff Report (Budget, Grants, Projects, Website, Stormwater Conference 2021, Legislative Session Update, Stormwater Project Phase 2), Septic Leachate Projects (GIS Risk Map, Unpermitted Systems Analysis, Synthetic DNA Study, FLBS NSF Proposal, Flathead Basin Wastewater Partnership), Water Quality Monitoring Panel, Discussion: Meeting topics planning.
Kate Wilson, Commission Administrator Cassidy Bender, Commission Coordinator Staff Updates/Budgets	<p>Staff Update:</p> <ul style="list-style-type: none"> • Legislative Updates: OTO bill requesting our one-time-only funding become permanent has not had any flags so hopefully that will be passed and will return FBC back to our pre-cut budget status. If bill passes would be an addition of \$40,000 (replacing \$20,000) on top of the base (HB: 2). Each year of the next biennium would be closer to \$60,000. • Kate and Cassidy split their time 50/50 with FBC and UC³. • Executive Committee meets every other Tuesday at 10, meetings are open to everyone and if you are interested let us know. This allows us to conduct business between quarterly meetings. • Notable staff activities: <ul style="list-style-type: none"> ▪ Meeting follow up and planning ▪ Executive Committee planning and participation ▪ Grant & Budget management (writing/reporting/tracking) – EPA grant progress report submitted ▪ Monitoring Flathead Basin natural resource issues ▪ Flathead Basin Wastewater Partnership ▪ Septic leachate committee and tech subcommittee support- GIS Risk Map, Synthetic DNA Study, etc. ▪ Stormwater project support- Phase II ▪ BSWC projects & planning ▪ Education & Outreach committee- Basin-wide water quality campaign, website. ▪ 2021 Legislative Session Bill & Committee Tracking ▪ Crown Managers Partnership steering committee (represent both Commissions) ▪ North American Invasive Species Management Association conference (president-elect)- Sept 27-30, 2021 Missoula ▪ PNWER (co-chair of invasive species working group) ▪ Western Regional Panel (chair of Fire AIS protocol committee) ▪ BC Columbia River Basin Steering Committee (member) ▪ Pend Oreille Basin Commission (Ex-officio, MT upstream rep) ▪ Upper Columbia Conservation Commission & AIS support (50% of staff time) ▪ County Assist Team (CAT) Public Information Officer & Liaison Officer (Kate) ▪ Graduate School- MPA Certificate (Kate) • Upcoming Events: <ul style="list-style-type: none"> ▪ Montana Legislative Session- Jan-April 2021 ▪ NALMS Monitoring Conf- Apr 20-22nd (virtual) ▪ UC³ Spring Meeting- May 12th (virtual)- Presentation from Nate Owens of Utah's Lake Powell AIS program ▪ Pacific Northwest Economic Region (PNWER)- Annual Summit Aug '21 (Big Sky) ▪ Flathead Basin Commission Summer Meeting- August 25th. Virtual/TBD

- StormCon 2021- Sept 13-15. Milwaukee, WI
- North American Invasive Species Management Association (NAISMA)- Conference Sept 27-30th '21 (Missoula) Hybrid conf ~200 people in person
- NALMS- Nov 15-18. Oklahoma City, OK
- Always happy to cover registration and travel for FBC members so if you see things that are of interest to you, let us know.
- 2021 Stormwater Conference- POSTPONED until May 2nd-4th 2022, at the Missoula Holiday Inn. Action from the Governor's office postponing all state sponsored events for the immediate future. The level of interest for the 2021 conference was on track to be more successful than the 2018 conference which was extended for an extra day with about 350 participants.
- FBC Gold Level sponsorship with abstract for FBC priorities and projects panel to be held until next year.

Budget & Finances:

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**
 - **\$51,113**- EPA grant 1 (stormwater project, 2 years)- \$26,152 expended
 - **\$26,191**- EPA grant 2 (septic leachate GIS mapping; synthetic DNA study) -\$0 Expended

Budget: State Operating Funds (FY21):

- FY20 Operating: \$40,000/\$40,000 spent or **accrued** to existing contracts
- **FY21 Operating: \$41,170/\$75,000 spent**
 - \$20,000 (annual base budget) + \$20,000 (addition One-Time-Only)
 - **Added \$35,000 in FY20 accruals to FY21 budget (existing contracts only)**
 - **\$19,620/\$20,000** accrued to RDG contract (septic leachate risk map/GIS).
 - **\$11,226/\$15,000** accrued to Windfall contract (WQ campaign, website, etc.).
 - NO ACTION needed now (approved budget 9/23/20).
- **Existing Contracts**
 1. River Design Group—septic leachate risk mapping & additional technical support
 - **\$19,620/\$24,800 (Balance: \$5,180)**
 - Currently seeking amendment to add funds
 - EPA grant (\$8,000)
 - FBC operating funds (\$8,000)
 2. Windfall—website, water quality campaign development, reports & publications, graphic design
 - **\$11,266/\$15,000 (Balance: \$3,774)**
 - Currently seeking amendments to add funds
 - EPA grant (\$4,645)
 - FBC operating funds (\$20,000)

<p>Kate Wilson, Commission Administrator</p> <p>Cassidy Bender, Commission Coordinator</p> <p>Committee Updates</p>	<p>Education & Outreach Committee</p> <ul style="list-style-type: none"> • Co-Chairs: Lech Naumovich (FCD) & Casey Lewis (City of Kalispell) • Steering Committee: Flathead Lakers, Flathead CD, FLBS, CSKT, Crown of Continent Geotourism, WLI, etc. (currently adding DEQ) • Projects: <ul style="list-style-type: none"> ○ New website (2021) ○ Flathead Basin Water Quality Campaign <ul style="list-style-type: none"> ▪ Address multiple water quality topics ▪ Increase consistency and effectiveness of messaging ▪ Campaign logo/look & feel/materials would be available to all partners. • Next Steps: <ul style="list-style-type: none"> ○ Creation of WQ Campaign ‘strategy’: goals, objectives, work plan & timeline. ○ Present campaign examples to steering committee, commission & partners (August 25th meeting). • We are always looking for input for E&O. Please share ideas with us sooner rather than later. If you have input or are interested in participating, please contact us! <p>Technical Committee</p> <ul style="list-style-type: none"> • The technical committee started as a subcommittee of the Onsite Wastewater Treatment Committee. After needed expertise on other projects including stormwater, the synthetic DNA study, and the GIS risk map we have updated the committee charter to form a broader standing committee to assist FBC on a variety of different projects. • Participation: Agency, technical staff, contractors • Meetings: As needed (project based) • Concept Update: <ul style="list-style-type: none"> ○ Specialty/expertise of members fitted to project(s) ○ Guide technical elements of projects ○ Core Team: Mike Koopal (Chair); Myla Kelly (DEQ); Ryan Richardson (RDG); Tom Bansak (FLBS); Erin Sexton (FLBS); Sam Bourret (FWP); CSKT – TBD; staff ○ Supplemental Members (based on project/need) <ul style="list-style-type: none"> ▪ Septic leachate project(s) – to be scheduled soon ▪ Stormwater project(s) – meeting w/ Technical Committee tomorrow 4/1 ▪ Monitoring (potential)
<p>Emilie Henry, Big Sky Watershed Corps; Kate Wilson</p> <p>Big Sky Watershed Corps Member Activities & Outreach Project</p>	<p>BSWC Overview</p> <ul style="list-style-type: none"> • EPA Grant Components (2020-2022) <ul style="list-style-type: none"> ○ Big Sky Watershed Corps (partial, 2 years) ○ Emilie Henry back for 2nd term- Shared with the City of Kalispell • Phase II: Stormwater Monitoring & Inventory <ul style="list-style-type: none"> ○ 2020 Phase I report available on FBC website • \$22k remaining in EPA grant-progress report submitted • Education & Outreach <ul style="list-style-type: none"> ○ Rain Garden Initiative ○ Adopt-a-Drain Program ○ Flathead Watershed/Stormwater Curriculum ○ Organize Local River Clean Up Event(s) <p>Stormwater Project Phase II Update</p> <ul style="list-style-type: none"> • “How do we use the information gathered last year to improve stormwater management and ultimately, water quality?” • Researching & brainstorming future directions • To include stormwater sampling & dry-weather outfall inspections.

	<ul style="list-style-type: none"> • Meeting with Technical Committee 4/1/21 to clarify & expand project goals • Flathead Rain Garden Initiative <ul style="list-style-type: none"> ○ Beginning outreach to interested participants, conducting site visits • Adopt-a-Drain Campaign <ul style="list-style-type: none"> ○ Creating resources & setting up website. ○ Piloting in Kalispell this year, will provide resources for expansion to other areas.
<p>Ed Lieser, FBC Vice Chair; Mike Koopal, Whitefish Lake Institute/FBC; Kate Wilson</p> <p>Septic Leachate Projects Update</p>	<p>Septic Leachate Projects</p> <ul style="list-style-type: none"> • Awarded EPA Grant- \$26k for septic leachate work <ul style="list-style-type: none"> ○ \$8k to RDG Contract + \$15k to synthetic DNA project • GIS/Septic Risk Mapping Project- Phase 2 (2020-21): Southern end of lake is more difficult than Flathead County (Phase 1) since there is no electronic septic data <ul style="list-style-type: none"> ○ Tribal Council presentation/request to digitize CSKT septic data in progress ○ Lake County has declined our offer to assist in the digitization of the septic data but hopefully they will be doing this sometime in the near future. ○ Ryan is currently working on mapping unpermitted systems in the basin and exploring ways to continue on without the Lake County data. • Synthetic DNA study (Whitefish & Lake Mary Ronan)- spring 2022 <ul style="list-style-type: none"> ○ Cornell contract in development ○ Originally had planned to implement project in spring 2021 but with contract/communication delays we are holding off until 2022. The DNA tracers can be fabricated and stored in the meantime, so they are ready to go April '22. • Flathead Basin Wastewater Partnership Update <ul style="list-style-type: none"> ○ Flathead Wastewater Partnership was formed: partners in the basin working on wastewater issues (DEQ, SWCDM/MACD, FBC, Flathead Lakers, etc.). ○ Jillian Henrichon- BSWC (Ronan) working on the Septic Maintenance Reimbursement Program – Lake County Conservation District also assisting with the FBC Onsite Wastewater committee projects. ○ The Wastewater partnership has been working on prioritization and eligibility criteria for the reimbursement program. Among other criteria, participants need to have a tank that has not been pumped in at least 3 years to be eligible. ○ FBC assisting with Education & Outreach on septic cost-share program. ○ Lech: Idea to incentivize the septic reimbursement program. Providing \$100 amazon card or a local business gift card for participation. • UM Graduate Project: Looking into socio-economic impacts/barriers of septic leachate • UM/FLBS National Science Foundation Proposal (based on synthetic DNA project) <ul style="list-style-type: none"> ○ Nanette Nelson (FLBS) has been working with other UM faculty and WLI looking at more technical options of addressing septic leachate as well as the socio-economic barriers/benefits. ○ Put in an application for an NSF planning grant- smaller grant that will bring people together to discuss these topics that will talk about the different approaches. FBC members have been engaged and will be invited to a workshop and hopefully this will culminate in a bigger NSF project grant in the future. <p>GIS/Septic Risk Mapping Project- Phase 2 Update Introduction: Mike Koopal (WLI & Technical Committee Chair)</p> <ul style="list-style-type: none"> • The septic leachate issue is timely with more and more people moving to the Flathead basin along with the high density and raising age of septic systems. It is a 'marathon' issue that is not getting better but getting worse, it will probably outlast the two-year work plan with the Flathead Basin Commission but we are making great strides.

- As part of Phase 2 of the mapping project, we have been looking into unpermitted systems in Flathead county (i.e. how many systems existed prior to the county permitting in 1978).
- Ultimately what we want to do is have Ryan and the committees work peer reviewed so we can present the information to municipalities, county governments, subdivision planners, real estate professionals, etc.

Phase 1 Overview and Phase 2 Plans/Progress: Ryan Richardson (RDG)

- Project goals: Identify existing septic system distribution and age of population; increase the committee's spatial understanding of septic system pollution risk. Create layers/maps for known risk factors for septic system failure/poor performance.
- Phase 1 physical risk map parameters are based on soil, depth to groundwater, distance to surface water, and slope. These were mapped and applied to the existing density of systems in Flathead county (based off of all the existing permits starting from 1978).
- Phase 2 is to create these physical risk maps and septic density maps for the southern portion of the lake (CSKT and Lake County).
- Without the septic data from Lake County and CSKT, we needed a way to move forward with the project and estimate not only the number of systems but the location and number of parcels/potential systems on each plot.
- We have created an analysis of unpermitted systems prior to 1978 that target parcels within the Cadastral database (land ownership and tax information database) that have a high potential for an unpermitted septic system.
 - Systems pre-1978 were not required to get a permit.
 - If a system was installed prior to 1978 and then was altered at all, they would have gotten a permit. See Flathead County regulations: <https://flatheadhealth.org/wp-content/uploads/2014/08/Septic-System-Regulation-2-16.pdf> (Pg. 7)
 - Found ~\$8000 unpermitted systems for Flathead County alone.
 - Some parcels are large in size and mapped as 'no permit identified' for the whole parcel, meaning we are unsure if/how many systems present.
- Unpermitted systems analysis:
 - Started with Cadastral database
 - Removed parcels of:
 - Public land
 - Blank owners and values
 - Building Value of Zero (value of structure assessment via tax info)
 - Building less than \$5,000
 - Sweet spot of not adding too many sheds/barns but including most residences
 - Building less than \$10,000 and greater than 10 acres
 - Only leave us with parcels that are likely residential
 - Link Septic Permit Database to Cadastral and remove all parcels with permits
 - Clip out areas with sewer distribution
 - Call communities to confirm sewer connection
 - Discussions with major water/sewer districts extent of services
 - Remaining parcels are identified as potential parcels with unpermitted septic systems (Results: ~8,000 parcels)
- Validation technique to validate the cadastral approach: We have the addresses and names of owners of these parcels (creating a random sample from these sites), so we will be able to send out a post card with a survey of 'do you have a septic system on your property' (possibly incentivize the survey).

	<p>ArcNLET Septic Analysis</p> <ul style="list-style-type: none"> • GIS based model to simulate nitrogen contaminate plumes from septic systems. • Model based on physical characteristics of site and physics of groundwater flow and diffusion. • Output is a useful tool for communicating septic pollution issue but may not accurately depict nitrate concentrations given the complexity of the processes. • Able to apply this analysis to Whitefish Lake and Lake Mary Ronan with the goal of coming up with particle paths with each of the systems/sites to target for the Cornell Synthetic DNA project. <p>Synthetic DNA Tracer Study</p> <ul style="list-style-type: none"> • Unlike eDNA these are unique short strands of DNA created in a lab that can be used as a tracer in groundwater. • Research in Georgia shows effectiveness at using this technique for septic systems in proximity to lakes. • Work plan needed additional information of location and timing of sampling. • Particle tracking module in ArcNLET will refine our sampling plan. • Sampling Sites: <ul style="list-style-type: none"> ○ Lake Mary Ronan <ul style="list-style-type: none"> ▪ Northern Inlet (8 sites) ○ Whitefish Lake <ul style="list-style-type: none"> ▪ Lazy Bay (2-4 sites) ▪ Eagle Point (2-4 sites) ▪ Lion Mountain (2-4 sites) • Sampling Technique <ul style="list-style-type: none"> ○ Shoreline (100m along the shoreline, grab sample as close to shoreline as possible)—Van Dorn Sampler ○ Whitefish Lake Institute ○ Friends of Lake Mary Ronan • Sampling Frequency <ul style="list-style-type: none"> ○ Months 1-3—Every 3 days ○ Months 3-5—Every 5 days ○ Months 5-7—Every 10 days <p>Discussion/Questions</p> <ul style="list-style-type: none"> • Salish Kootenai Housing Authority Water & Sewer may have info: https://skha.org/. • We would like to get this mapping product/information peer reviewed before we present the information as a public facing tool and share with municipalities, land managers/planners and other on board before it is a real public facing tool. With all the work that WLI has done on this issue previously: the lesson learned is don't rush it because there are so many factors on this issue, we want to make sure we aren't met with resistance.
<p>Water Quality Monitoring Panel</p> <p>Cynthia Ingelfinger and Mike Koopal, Whitefish Lake Institute</p>	<p>Please see the meeting packet sent prior to the meeting for updates/information from each monitoring partner. Any additional updates that came up at the meeting are identified below.</p> <p>Northwest Montana Lakes Network: Cynthia Ingelfinger NEW WEBSITE: https://nmln.info/ Whitefish Lake Institute: Mike Koopal whitefishlake.org</p> <ul style="list-style-type: none"> • NWML was formerly a FBC program and is now a partnership program with FWP combining water quality, quantity, and temperature and AIS monitoring. • Currently have about 50 volunteers now monitoring 41 lakes with 50 sites in 4 counties.

Rachel Malison and Tom Bansak, Flathead Lake Biological Station

Jim Baker and Lynn Maas, Friends of Lake Mary Ronan

- Have implemented a new website that has a feature where volunteers can enter their data in real time. With all information uploaded into the FWP database.
- Value of these long-term monitoring programs is that we are now in a position to take a look at regional water quality trends. Long term monitoring programs provide us with a background database of conditions of lakes and streams, if we see deviations from that data, we can start asking why that is happening.
- In addition to the 2 sites that WLI samples, the FLBS has a mid-lake site that they have been collecting data on and off since the mid-1980s.
- We also partner actively with the City of Whitefish on AIS and early detection monitoring.

Flathead Lake Biological Station: Tom Bansak <https://flbs.umt.edu/>

- The biological station has been monitoring on Flathead Lake since 1977, originally in response to the threat of large-scale coal mining on the Canadian portion of the watershed as well as an outbreak of harmful algal blooms in the 1960-80s.
- Very fortunate to have long term data and record of species occurrences through the biological station to know what is ecological and naturally normal.
- Monitoring year round in Flathead Lake and its tributaries for water quality, quantity, temperature, water chemistry/nutrients, biological (algae, phytoplankton, zooplankton, Mysis shrimp), and shoreline algal sites.
- Have added a long-term monitoring site in Polson bay (the hot tub connected to the pool), important monitoring as it is almost a whole other lake entirely.
- 2019 best water clarity in Flathead Lake for over 20 years. Flathead Lake is 'tenuously stable' because it is entirely in our power and in societies hands to keep the lake clean.
- Recommendations: We need to keep monitoring because we need good data to make good decisions. Especially with rapid development (shoreline development, more septic systems, and the conversion of forested and vegetated land into developed land and pavement). Through the development of the valley we are reducing the ability of the valley to process and filter nutrients and pollutants.

Monitoring Montana Waters- FLBS Citizen Science program: Rachel Malison

<https://flbs.umt.edu/newflbs/outreach/mmw/monitoring-montana-waters/>

- The bio station has often been approached in the past by volunteer programs that need assistance to monitor their home waters. Monitoring Montana Waters is a citizen science program launched in February of 2021 to enhance the capacity for citizen led water quality monitoring in Montana by providing scientific, financial, and technical assistance to volunteer monitoring groups.
- Offer services to monitoring groups including: the development of monitoring plans, on the ground training in monitoring methodologies, collecting water quality data and upload that data into the database, as well as small grants to help financially.

Swan Lakers: Tom Bansak (volunteer board member) <http://www.swanlakers.org/>

- Swan Lakers has been sampling since 2015, focusing on water chemistry, nutrient analysis, algal and chlorophyll monitoring. The lake is sampled at 2 deep water sites about 4 times a year: spring, runoff, summer, and late fall.
- Late fall is when you see the lowest oxygen levels. If you get to low oxygen levels, Phosphorus can be released from the bottom of the lake and it will grow more algae, more algae grows more algae dies and consumes more oxygen and increases more phosphorus creating a negative feedback loop. The south basin of Swan lake has had an intermittent oxygen sag going back in the 1990s.
- One of the causes of the oxygen lag could be septic leachate in the area.
- The USFS and Swan Valley Connections collect AIS samples around Swan Lake.

- Will be working with Monitoring Montana Waters to get Swan Lakers data uploaded to the database to validate data.

Friends of Lake Mary Ronan: Jim Baker & Lynn Maas <https://friendsoflakemaryronan.org/>

- Friends of Lake Mary Ronan is an all-volunteer, tax exempt organization that has been involved with the WLI monitoring program for several years. Recent sampling data from Lake Mary Ronan showed it is high in Phosphorus and Nitrogen.
- Lake Mary Ronan is a small lake ~1500 acres with deepest ~50 ft. Historically used primarily by ranchers downstream and they own most of the water rights.
- FLMR has worked with DEQ to develop a 2-year study to monitor the lake and will now be working with the Monitoring Montana Waters program to upload the collected data.
- A study done in the 1970s predicted 17.1 years for full exchange of the lake and more recent studies have estimated 3-7 years.
- Collect samples early may-November for 2 years 2019-2020. Samples taken at 2 sites on the lake, correspond with the 2 sites that the NMLN has been collecting at since 2012. Collect about every month. Also monitor 3 streams, 2 inlets and 1 outlet of the lake.
- When lake levels are low, 0% oxygen at 20-30 ft. we want to do an analysis of how bad it is and what we can do to solve the problem.
- The FLMR AIS monitoring committee is hoping to join with Cynthia's effort to do a more formalized and structured analysis AIS monitoring program.

Discussion/Questions

- Tom mentioned changes in Mysis spawning frequency changes, that seems to imply increasing abundance, is that the case?
 - Not necessarily increasing in abundance but population by itself is not just related to reproduction because the shrimp are eaten by a plethora of fish. We monitor the Mysis and provide that data to the fisheries departments of FWP and CSKT, looking at a connection between the fish population and the shrimp population. The populations fluctuate and we are trying to figure out why.
- Didymo is an algal species of national/international concern. In the Flathead, didymo is native - FLBS founder Morton Elrod documented didymo in GNP in the early 1900s but we are currently seeing increases in didymo growth in the Flathead, especially in lake outlet streams. Elsewhere in the nation and world, didymo is a nonnative invader causing significant problems. Some theories as to why didymo growth is exploding include: lower/dampened spring peak flows due to dam operations and climate change; warmer water temperatures; lower global Phosphorus to Nitrogen ratios - didymo has mechanisms to grab Phosphorous when at low levels that other algal species cannot. Ecologically dense growth of didymo is problematic because it chokes out other algal species and many of the aquatic insects that fish eat and fisher-people value. The country of New Zealand has banned felt soled waders as it has decimated their fisheries as an invasive species coming from North America. Didymo is also a big issue in south America and Patagonia with their world-renowned fisheries.
- Didymo research from NPS- The Inventory and Monitoring program, specifically for Stream Ecology (Vital Signs) has been in place in Glacier since 2007. They finally issued a status report in 2018 for years 2007-2009.
- Often reported by anglers, FWP was studying at the south and middle fork (Didymo is also located at the base of the Hungry Horse Dam). Didymo (rock snot) is also at the Kootenai below Libby dam and the Corp of Engineers is doing research there.
- Monitoring MT Waters- mostly watershed groups have applied, if it is a volunteer group potentially associated with a water quality district, applications are still open this year.

	<p>MMW is focused more on rivers and streams (lots of data collected on lakes already esp. with NMLN but won't rule those applications).</p> <ul style="list-style-type: none"> MSU Extension WQ program data hub (EQUIS database) you can upload your data and it will graph the data for you. Not trying to reproduce that with MMW, trying to make folks aware of that resource. Other things that you would add to a list of things that would be useful for management in the future: <ul style="list-style-type: none"> Increasing development Network of monitoring practitioners to create BMPs Microplastics Pharmaceuticals These are questions that the technical committee can undertake and make recommendations to the commission in the future.
Brainstorming Session	<p>Brainstorming: Future Meeting Topics</p> <ul style="list-style-type: none"> Member input on future meeting topics: <ul style="list-style-type: none"> Groundwater Investigation Program- proposals due in June Watershed Partners Coordination Panel (2021 Priority) Rail Safety Panel (tabled due to COVID, best as in person panel) Water Infrastructure Wildsight Update- Alberta and BC (presenter from that organization) Clean Water Act Amendment: EPA/CRB Restoration Grant Retreat/Planning Session Potential <ul style="list-style-type: none"> FBC Summer Meeting: August 25th Retreat/Planning Session Potential (Fall of 2021 or Winter 2022) Let us know if you have location ideas. <p>Poll for meeting topic at the August 25th meeting:</p> <ul style="list-style-type: none"> Results: Tie between Canadian headwaters of the Flathead updates and the Clean Water Act Amendment- Columbia River Basin/EPA Restoration Grant. Selenium Standards was the third option.
Public Comment	<ul style="list-style-type: none"> None
Wrap up & Adjournment	<ul style="list-style-type: none"> Next meeting dates (2021): <ul style="list-style-type: none"> Summer- August 25th (TBD/likely virtual) Will keep the commission posted on the legislative session and please feel free to join any executive committee meetings in the future. Motion to adjourn (Jack). Second (Steve). All in favor. <i>Motion passes.</i> Meeting adjourned at 3:55pm.

4. Action Items				
Action		Assigned	Due Date	Status
1	Send out draft minutes	Kate Wilson Cassidy Bender	4/14/2021	Completed
2	Organize presentation for August 25 th meeting on the Water Compact, EPA CRB restoration grant or an update on Wildsight, Canada.	Kate Wilson	8/25/2021	Completed
3	Add all future meeting topic ideas from brainstorming session to spreadsheet.	Cassidy Bender	4/8/2021	Completed
EXISTING ACTION ITEMS FROM PREVIOUS MEETINGS				

4	Myla will invite Jim Dunnegan to jointly present on the selenium topic at August meeting.	Myla Kelly	On Hold	On Hold
5	Kate to reach out to Erin Sexton at the FLBS on transboundary issues and filling the BC vacancy on FBC.	Kate Wilson	4/15/2021	
6	Draft joint UC ³ letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020-21 season	Unknown if warranted
7	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Agencies, Kate Wilson, Cassidy Bender	On-going	On-going
8	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson, Cassidy Bender	On-going	On-going
9	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson	On-going	On-going
10	Address BC rep vacancy (ex-officio)	Kate Wilson	On-going	On-going

DRAFT



Flathead Basin Commission

Septic Leachate Projects Update

Onsite Wastewater Treatment Committee

August 12, 2021

Next meeting is virtual September 22nd, 2021 from 1:00-3:00pm

Background:

Septic leachate has been identified as a risk to waterbodies and several studies in the Flathead Basin have been conducted to date. There are many factors involved in the operation and performance of septic tanks, including but not limited to design, drain field location, soils, density of development, cost, state standards, and local regulations and processes. Added up, failing septic systems and the threats they cause are a relatively new recognized and serious feature of the nation's unaddressed water pollution problem. The Flathead Basin Commission (FBC) has prioritized non-point source pollution as a key element in the basin and is seeking to work with partners to move this issue forward. The Onsite Wastewater Treatment Committee was created in 2019 to work on these projects within the Flathead Basin. In 2020, a technical subcommittee was created to inform the larger committee on the technical components of ongoing projects. After expertise was needed for other commission projects, we have updated the committee charter to form a broader standing committee to assist FBC on a variety of different projects (septic leachate, stormwater, monitoring, etc.).

Onsite Wastewater Treatment Committee Goal:

Adopt a shared strategy and develop options through a collaborative process to protect public health and water quality from septic leachate in the Flathead Basin by increasing on-site wastewater treatment systems performance.

Committee Objectives:

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 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.
5. Identify emerging solutions and appropriate compliance mechanisms.
6. Develop and provide report with recommendations for approaches or actions related to onsite wastewater treatment systems to the Flathead Basin Commission for consideration.
7. Encourage the Flathead Basin Commission to provide public forum on committee findings and recommendation(s).
8. Seek more information on septage/land application requirements and practices. Ensure that any proposed recommendations acknowledge/address any potential septage issues.



Flathead Basin Commission

Current Septic Leachate Projects & Updates:

GIS Septic Leachate Risk Mapping Phase II (2020-2021)- Ryan Richardson (River Design Group)

- Project goals: Identify existing septic system distribution and age of population; increase the committee's spatial understanding of septic system pollution risk. Create layers/maps for known risk factors for septic system failure/poor performance.
- *Phase I Complete:* Created physical risk maps with layers based on soil, depth to groundwater, distance to surface water, and slope. These were mapped and applied to the existing density of systems in Flathead County (based off of all the existing permit records starting from 1978).
- *Phase II Underway:* Create physical risk and septic density maps for the southern portion of the basin (CSKT and Lake County). We do not have digital septic permit data for this portion, so other existing datasets have been used as a substitute (Cadastral).
- *Unpermitted Systems Analysis:* Analysis of unpermitted systems (systems that existed prior to the county beginning permitting in 1978) targets parcels within the Cadastral database (land ownership and tax information) that have a high potential for an unpermitted septic system.
 - Found ~\$8000 possibly unpermitted systems for Flathead County alone.
 - Exploring validation techniques for this analysis (via landowner survey).

Synthetic DNA Tracer Study- Dr. Todd Walter (Cornell University)

- Synthetic DNA tracer study to validate and calibrate GIS mapping project: placing unique short strands of synthetically created DNA in the septic systems of homeowners to assess the connection to groundwater.
 - FBC EPA grant to fund bulk of study.
 - The ArcNLET particle tracking module will help determine/refine the sampling plan.
 - Current sampling sites: Lake Mary Ronan (8 sites) and Whitefish Lake (6-12 sites).
- Project delayed one year due to various factors, will resume spring 2022. DNA tracers can be fabricated and stored in the meantime.
- Scope of work & budget completed w/ Cornell, moving into contracting/procurement.
- Next steps include contract finalization, writing QAPP & submitting to DEQ & EPA, identifying project sites and homeowners willing to participate.

Flathead Wastewater Partnership

- The Soil & Water Conservation Districts of Montana (SWCDM) received DEQ/EPA 319 grant in 2019 to address septic leachate in key areas of the basin by providing landowners match/funding for maintenance/replacement of septic systems.



Flathead Basin Commission

- From this the [Septic Maintenance Reimbursement Program](#) was formed.
- They have had 81 applicants so far, 15 have been reimbursed and 34 are in the process of being reimbursed as of August 2021. Using \$13k of the available \$30k.
- The Flathead Wastewater Partnership (DEQ, SWCDM/MACD, FBC, Flathead Lakers, FCD, LCD, etc.) was formed to enhance coordination between various partners in the basin on septic leachate and share a Big Sky Watershed Corps member (Jillian Henrichon) to assist with the reimbursement program and support for FBC's wastewater committee (research, report-writing, annotated bibliography, potentially digitization of data project).
 - Jillian is also conducting outreach on septic leachate and the reimbursement program through advertisements (radio, newspaper, digital) and tabling at events.

University of Montana Graduate Project (Marie Watson)

- Looking into the socio-economic impacts/barriers of septic maintenance/replacement and how that impacts the septic leachate issue. Marie has been participating in the Wastewater Partnership.

FBC Water Quality Campaign

- One of the issues identified when investigating the scope of the septic leachate issue via commission member survey in 2020 was the lack of education among land/homeowners around septic systems and the environmental impact they have.
- FBC is currently working with the Education & Outreach committee to create a basin-wide water quality campaign that can be used to conduct outreach on a variety of water quality issues in the basin, including septic leachate.
- Project is currently underway, with goal of launching campaign in 2022.

Groundwater Investigation Proposal – West Flathead Valley

- FBC sponsored a DNRC Groundwater Investigation Proposal to investigate the West Flathead Valley ranging from south of Whitefish to Ashley Creek.
 - Purpose: to collect groundwater information from the shallow to deep aquifer, nutrient pollutants (especially nitrate), and other correlation data.
 - Submitted June 2021- went to technical subcommittee for final comments, and the committee will likely participate in those discussions if the application is successful or recommend groundwater specialists.
 - Should hear about status of application in the fall of 2021.



Flathead Basin Commission

National Science Foundation (NSF) Smart & Connected Communities Grant Application

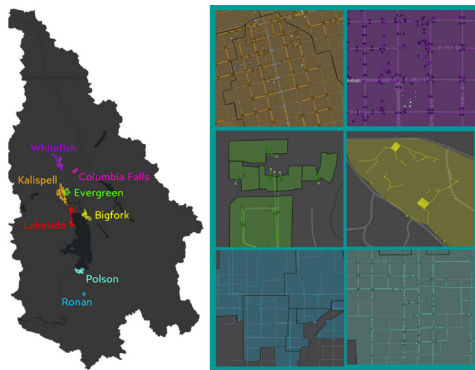
- FBC submitted a letter of support for an NSF grant application submitted by Dr. Sarah Halvorson and Nanette Nelson (University of Montana & FLBS) entitled *'Leveraging community partnerships and intelligent technologies to address septic system water quality risks in the Flathead Basin'*.
- The grant focuses on getting more data to the community in a digestible format in order to improve quality of life. It requires linking the research community with the general community (basin-wide) through applied work (in this case focused on septic leachate).
- Planning Grant Proposal: Up to \$150,000 -if successful, possibility to include the following:
 - Community Workshop with partners & stakeholders on septic leachate solutions.
 - Review/survey (basin-wide) of best practices, interventions & approaches.
 - Build on Synthetic DNA tracer study: focus group w/households engaged in study.
 - Small survey on beginning knowledge of septic issue (pre-study).
 - Educational focus group, presenting results of the tracer study, providing real time, local data to homeowners, gather data on whether science/results change opinions or behavior.
 - Survey at the end of study to gauge interest, feedback, & feasibility of tackling this issue.
 - FLBS thermal imaging drone & sampling project to identify impaired points around Flathead Lake
- If the grant application is successful FBC will serve as a co-host and collaborate with the University of Montana in developing the format and agenda of a three-day workshop at the Flathead Lake Biological Station to discuss and plan for a future Smart & Connected Community Integrated Research Grant proposal.
- Grant application was approved.

An Investigation into Stormwater Management, Pollution, and Monitoring in the Flathead Watershed, Montana: Phase 1



Background & Purpose

The Flathead Basin Commission and the City of Kalispell partnered to investigate and raise awareness of stormwater in the Flathead Watershed. Together, they supported a Big Sky Watershed Corps member to execute the first phase of this stormwater investigation. The purpose of this project is to learn more about how stormwater is currently being managed in the watershed in order to protect waterbodies from nonpoint source pollution in the future.



Highlights

Inventory of Stormwater Infrastructure

Developing the inventory primarily involved communicating with city and town representatives to request access to their stormwater infrastructure data, but in areas where such data had not been previously documented, as was the case in Polson, a citizen science data collection event was organized. During this event, members of the community gathered in downtown Polson to help map Polson's stormwater system.

Outfall Prioritization Model

Taking into account each sub-basin's size, predominant land use, and status of the receiving waterbody, the model determined 12 outfalls in the watershed to have the highest potential for stormwater pollution. These will be looked into more in Phase II as potential locations for water quality monitoring.

Methods for Nonpoint Source Pollution Detection

Stormwater sampling and dry-weather inspections of outfalls for illicit discharge detection were employed throughout the basin as methods for monitoring nonpoint source pollution.

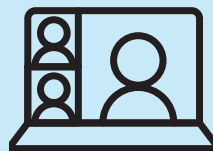
Accomplishments

During Phase I, the team was able to:

- 1 Create an inventory of existing stormwater infrastructure in urban areas of the basin
- 2 Develop a model for prioritizing known sub-basins to inform future water quality monitoring efforts
- 3 Test two methods for detecting and monitoring nonpoint source pollution in the watershed
- 4 Educate residents about nonpoint source pollution and empower them to take action by building rain gardens on their properties

Flathead Rain Garden Initiative

A partnership between the City of Kalispell and the Flathead Conservation District, the Flathead Rain Garden Initiative was able to empower residents to build eight rain gardens, which together manage about 95,000 gallons of runoff every year! The initiative hosted workshops to inform residents about how rain gardens can help mitigate nonpoint source pollution and provided residents with the resources and support to build their own.



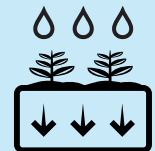
Hosted
2
virtual
workshops



Managed
~95,000
gallons
of runoff



Engaged
41
residents



Helped build
8
rain gardens

[Flathead Basin Stormwater Project Video](#)

Check out the wonderful work of our Big Sky Watershed Corps member, Emilie Henry! While serving with the Flathead Basin Commission and the City of Kalispell, Emilie has initiated a series of projects assessing and addressing stormwater in the basin. In 2020 and 2021, she developed a stormwater inventory was developed for the basin, sampled storm events for pollution, conducted outreach in partnership with the Flathead Conservation District for the [Flathead Rain Garden Initiative](#) and built a volunteer base for gathering stormwater data in the basin. Watch the video to get an inside look into Emilie's stormwater projects: <https://www.youtube.com/watch?v=wZl6hHW4SXM>





Flathead Basin Commission

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MEETING MINUTES

Meeting/ Project Name:	Flathead Basin Commission		
Date of Meeting:	September 8th, 2021	Time:	10:00am-5:00pm
Minutes Prepared By:	Cassidy Bender	Location:	KwaTaqNuk Resort, Polson & 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)	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, opened the meeting. Confirmed quorum present (for voting purposes).
Introductions (Roundtable) & Welcome New Members	<ul style="list-style-type: none"> Each participant introduced themselves including name and organization/interest that they are representing. The Flathead Basin Commission acknowledges that we are in the aboriginal territories of the Salish and Kalispel people. Today, we honor the path they have always shown us in caring for this place for the generations to come. Thank you, past members, Mike Koopal, Ed Lieser, Steve Fry, and Patrick Holmes. Your dedication and contribution to the Flathead Basin Commission is greatly appreciated and you will be missed. Welcome new members: Sandy Beder-Miller, Brian Hughes, and Michael Freeman, Governor's Office. <p>Overview of FBC for new members:</p> <ul style="list-style-type: none"> The Flathead Basin Commission was established in 1983 by the Montana Legislature to protect the existing high quality of the Flathead Lake aquatic environment; the waters that flow into, out of, or are tributaries to the Lake and the natural resources and environment of the Flathead Basin. 2019-2021 Work Plan places a priority to address non-point source pollution (septic & stormwater) Membership: Federal (USFS, NPS, BOR, EPA); state (Governor's Office, DNRC, DEQ, FWP); tribal (CSKT), local government (Lake Co., Flathead Co. Commissioners; Conservation Districts; Governor-appointed citizens (x6) 15 x voting; 6 x Ex-Officio Strategic Priorities <ul style="list-style-type: none"> Water quality – non-point source pollution

	<ul style="list-style-type: none"> ○ Conservation planning ○ ‘Orphan issues’ = emerging threats ● Current projects & committees <ul style="list-style-type: none"> ○ Septic Leachate and ONWW Committee ○ Stormwater Project & BSWC activities ○ Technical Committee ○ Education & Outreach Steering Committee – WQ campaign
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2. Attendees

FBC (voting members underlined): Rich Janssen (CSKT), Sandy Beder-Miller (Governor-appointed), Kathy Olsen (DNRC Kalispell), Jasmine Courville-Brown (CSKT), Michael Freeman (Governor’s Office), Casey Lewis (City of Kalispell), Randy Brodehl (Flathead County Commission), Steve Stanley (Lake County Commissioner), Jim Simpson (Lake County Conservation District), Bill Dykes (BOR), Mark Bostrom (DNRC Helena), Kate Wilson (DNRC/FBC & UC³ Commission Administrator), Cassidy Bender (DNRC/FBC & UC³ Commission Coordinator), Emilie Henry (FBC BSWC, City of Kalispell), **Virtual members:** Lech Naumovich (Flathead Conservation District), Pete Webster (acting for Jeff Mow Glacier National Park), Kurt Steele (USFS), Mark Reller (BPA), Jack Potter (Governor-appointed), Myla Kelly (DEQ), **Public/Other:** Mike Koopal (WLI), Ryan Richardson (RDG), Autumn Coleman (DNRC), Arne Wick (DNRC), Seth Makepeace (CSKT), Stephanie Hummel (FLBS), Ed Meece (Polson City Manager), Valerie Kurth (DNRC), Rickey Schultz (HDR Inc.), Sheena Pate (Crown of the Continent Geotourism), Breanne Cline (Morrison-Maierle), Abigail St. Lawrence (Attorney), Tom McDonald (CSKT), Virginia Rigdon (FCD), Marie Watson (UM), Roger Noble (Flathead Lakers), Tom Bansak (FLBS), Jim Elser (FLBS), Eric Regensburger (DEQ), Samantha Tappenbeck (FCD), Jace Smith, Erin Sexton (FLBS), Nannette Nelson, Ron Catlett (Senator Daines Office), Jillian Henrichon (Flathead Wastewater Partnership, BSWC), Rachel Malison (FLBS), Keaton Martin (FLBS BSWC), Sheena Pate (Geotourism Council), Rickey Schultz (HDR)

Absent members: Peter Brumm (EPA), Brian Hughes (Governor-appointed)

3. Agenda and Notes, Decisions, Issues

Presenter	Topic/Discussion
Kate Wilson, Commission Administrator Approval of Minutes	<ul style="list-style-type: none"> ● Overview of Agenda: Approve 3/31/21 Minutes, Staff Report (Activities, Budget, Grants, Projects, Water Quality Campaign launch- ACTION, etc.), Stormwater Assessment & Mitigation, Septic Leachate Projects (GIS Risk Map, Unpermitted Systems Analysis, Synthetic DNA Study, FLBS NSF Proposal, Flathead Basin Wastewater Partnership), LUNCH, ARPA water & Sewer Infrastructure Grants, CSKT Compact Implementation, ACTION: Election (Vice Chair & Executive Committee), wrap up, next steps, Jan 26 mtg topics, public comment & adjourn. ● Motion to approve minutes from March 31st, 2021 meeting (Jim). Second (Randy). All in favor. <i>Motion passes.</i>
Staff Updates	<p>Staff Update:</p> <ul style="list-style-type: none"> ● Kate and Cassidy split their time 50/50 with FBC and UC³. ● Executive Committee meets every other Tuesday at 10am, meetings are open to everyone and if you are interested let us know. This allows us to conduct business between quarterly meetings. ● Notable staff activities: <ul style="list-style-type: none"> ▪ Kate has accepted a position as acting DNRC Communications Director (June-Nov/Dec 2021) ▪ Meeting follow up and planning ▪ Executive Committee planning and participation (bi-weekly) ▪ Grant & Budget management (writing/reporting/tracking) ▪ Monitoring Flathead Basin natural resource issues ▪ Flathead Basin Wastewater Partnership

<p>Staff Updates Cont.</p> <p>Kate Wilson, Commission Administrator</p> <p>Cassidy Bender, Commission Coordinator</p>	<ul style="list-style-type: none"> ▪ Septic leachate committee and tech subcommittee support- GIS Risk Map, Synthetic DNA Study, etc. ▪ Stormwater project support- Phase II ▪ BSWC projects & planning ▪ Education & Outreach committee- Basin-wide water quality campaign, website. ▪ Legislative & Committee Tracking ▪ Agency assistance & support ▪ Crown Managers Partnership steering committee (represent both Commissions) ▪ North American Invasive Species Management Association (president-elect) ▪ Nutrient standards working group ▪ Western Regional Panel (chair of Fire AIS protocol committee) ▪ BC Columbia River Basin Steering Committee (member) ▪ Pend Oreille Basin Commission (Ex-officio, MT upstream rep) ▪ Upper Columbia Conservation Commission & AIS support (50% of staff time) ▪ County Assist Team (CAT) Public Information Officer & Liaison Officer (Kate) ▪ Graduate School- MPA Certificate (Kate) ▪ Community Based Social Marketing & Outreach professional development (Cassidy) <p>Sources of Funding FY22</p> <ul style="list-style-type: none"> • State fiscal year = July 1- June 30 • Natural Resources Operating Fund FY22 <ul style="list-style-type: none"> ○ \$127,000- base budget & OTO now permanent (operating) • Natural Resources Operating Fund FY21 <ul style="list-style-type: none"> ○ \$20,000- accrual from FY21 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 <ul style="list-style-type: none"> ○ \$51,113- EPA grant 1 (stormwater project, 2 years)- <u>\$37, 142 expended</u> ○ \$26,191- EPA grant 2 (septic leachate GIS mapping; synthetic DNA study) -<u>\$0 Expended</u> ○ Applied for EPA Grant 3 (\$25,576)- Increasing staffing capacity for NPS pollution (\$3,200 to indirect and the rest to new proposed position = \$22,376) <p>FY22 Preliminary Approved Budget Changes & New Proposed Budget</p> <ul style="list-style-type: none"> ▪ After FY21 accruals, additional FBC operational funds became available. ▪ <u>Immediate Need</u>: Build capacity for FBC (support staff/Env Field Tech) ▪ Add a Non-point source pollution line item <ul style="list-style-type: none"> ○ Includes septic leachate/wastewater, stormwater, etc. work & projects ○ Big Sky Watershed Corps member (AmeriCorps/intern) vs. working towards long-term increased capacity (staff) ○ Priority #1 in Strategic Plan ○ Could provide increased support/capacity to: <ul style="list-style-type: none"> ▪ Septic leachate projects – mapping/survey, synthetic DNA project, Onsite Wastewater Treatment Committee analysis, Flathead Wastewater Partnership ▪ Stormwater assessment & mitigation – ongoing data collection, monitoring, Rain Garden Initiative, Adopt-a-Drain program, clean up events, mapping, etc. ▪ Water quality campaign launch/implementation ▪ Contingency/other category <ul style="list-style-type: none"> ○ Decreased amount due to increased need for staffing (priority)
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- Expended bulk on virtual mtg equipment

New Proposed Line-Item FY22 Budget: ACTION

- **\$66,000** Proposed FBC ‘Environmental Field Technician’
 - Build capacity for FBC through DNRC modified FTE.
 - Tasks: Support all NPS projects, launch of campaign, FBC full time (vs. current staff split between 2 commissions). Work towards a full-time FTE.
- **\$20,000** Non-point source projects & support
 1. Septic Leachate contract (to date), study and/or water quality monitoring to verify model, report generation (\$15,000)
 2. Stormwater monitoring & outreach (\$5,000)
- **\$20,000** Education & Outreach: Water Quality Campaign, outreach materials, website
- **\$8,500** Member travel/meetings & sponsorships
- **\$3,500** Conference/meeting sponsorships
 - Prioritize MT-based events. Examples: CMP, NALMS, NAISMA, PNWER, MT Stormwater Conference, etc.
- **\$4,000** Staff supplies/Travel
 - E.g., virtual meeting equipment, hot spot, cell phone, printing, training, travel on FBC-related business, etc.
- **\$5,000** Other/Contingency funds
- **TOTAL FUNDS: \$127,000 operating**
- **Motion:** to approve FY22 line-item budget (Kathy). Seconded (Casey). All in favor. *Motion passes.*

FY22 Sponsorships approved by ExComm

- \$0 NAISMA Conference (\$2,500 held from FY20)- Virtual, Sept
- \$0 PNWER Conference (\$2,000 held from FY20)- Big Sky, August
- \$0 Montana Stormwater Conference (Gold) – Missoula, May 2022 (\$2750, from FY21)
- \$2,500 North American Lakes Management Society- November (2 free registrations)
- \$1,000 MWCC Annual Watershed Sponsor
 - \$3,500 TOTAL in sponsorships FY22 (completed)

Existing Contracts

1. River Design Group—septic leachate risk mapping & additional technical support
 - **\$24,800/\$39,800 (Balance: \$15,000)**
2. Windfall—website, water quality campaign development, reports & publications, graphic design
 - **\$8,492/\$35,000 (Balance: \$26,508)**

Discussion:

- Mark: 3 biennium ago there was almost \$140,000 in FBC operating funds, we are on our way back to that amount. For the modified FTE, needs approval from DNRC director and then from Governor’s Office of Budget & Program Planning (OBPP).
 - The increase in operation funds will be used as a model for next fiscal year (FY23 will remain the same).
- Once approved, the new position would start ASAP (early 2022) and we would reapply the EPA (staffing capacity) grant toward NPS project funds. If position is not approved, we will explore a short-term worker to assist with our NPS projects next year.
- On sponsorships: we are not committing sponsorship funds to the Crown Managers Partnership because their entire funding need was covered by DNRC Forestry.

Education & Outreach Committee

Committee Updates

Cassidy Bender,
Commission
Coordinator

- Co-Chairs: Lech Naumovich (FCD) & Casey Lewis (City of Kalispell)
- Steering Committee: FBC staff, co-chairs, Hilary Devlin-Flathead Lakers, Samantha Tappenbeck-Flathead CD, Tom Bansak & Ian Withrow-FLBS, Evan Smith-CSKT, Sheena Pate-Crown of Continent Geotourism, Cynthia Ingelfinger-WLI, Eric Trum-DEQ.
- Projects:
 - New website (2022)
 - Flathead Basin Water Quality Campaign
 - Address multiple water quality issues
 - Increase consistency and effectiveness of messaging
 - Campaign logo/look & feel/materials would be available to all partners.
 - Meetings:
 - Flathead Basin partners meeting: December 2020
 - Committee meetings: March, May, June 2021
- Water Quality Campaign Overview & Process:
 - Creation of broad 'umbrella' water quality campaign that can represent multiple non-point source issues (septic leachate, stormwater pollution, water quality/quantity, etc.)
 - Campaign Goals:
 - Increase awareness of water quality issues and resources
 - Increase consistency of messaging and coordination
 - Increase partnership opportunities
 - Enhance personal behaviors that enhance water quality
 - Inspire residents and visitors to take pride and responsibility in conservation efforts
 - Enhance awareness of FBC and partner organizations as a voice for water quality information and work in the Flathead Basin
 - Things we have considered while developing the campaign:
 - Research- What is already out there?
 - Protect Our Waters is strictly an aquatic invasive species education campaign.
 - No other widely used or broadly recognized water quality campaigns currently being used.
 - Held partner meeting with follow up survey for 50+ state, federal, local, tribal, and private water quality partners to solicit feedback, input, and questions on the campaign concept.
 - Compiled responses, ideas, concerns, etc. into a 'creative brief' document for our design contractor (Windfall). Out of that 4 initial concepts were presented to the steering committee. We worked through lots of different taglines, logos, and graphic elements.
 - Discussions on campaigns purpose and marketing effectiveness:
 - We want to create useful, long lasting products.
 - Consider our target audiences: water users, residents, visitors, stakeholders & partners.
 - We want to create something identifiable and adoptable by all audiences.
 - Considering a call to action, pride of place, and a water quality purpose.
 - Seeking feedback on semi-final contenders.

**Committee Updates
Cont.**

Cassidy Bender,
Commission
Coordinator

- Taglines: Clearly Connected (directly speaks to both connection and water quality) and Think Downstream (call to action and water quality focused)
- Logos: Agricultural element vs. Mountains/trees
- Next Steps: create materials, FBC website, launch campaign in 2022, involve partners, etc.
- ACTION: Approve the general look/feel and direction of campaign and give permission for executive committee for final approval (meetings open to all).
- **Motion** to approve the progress of the WQ campaign and task the executive committee with stamp of final approval (Casey). Second (Sandy). All in favor. *Motion passes.*
- Upcoming Events:
 - **StormCon 2021**– Sept 13-15. Milwaukee, WI/Virtual
 - **North American Invasive Species Management Association (NAISMA)** – Sept 27-30. Virtual
 - **Upper Columbia Conservation Commission fall meeting** – Oct 13. Trout Creek, MT
 - **North American Lakes Management Society (NALMS)**– Nov 15-18. Oklahoma City, OK/Virtual
 - **Montana Association of Conservation Districts (MACD)** area meetings – Sept 27- Oct 4 (multiple locations)
 - **Montana Association of Conservation Districts (MACD)** Annual Conference – Nov 16-19. Great Falls, MT
 - FBC presentations: NALMS & MT Stormwater Conference (2021 & 2022)
 - Always happy to cover registration and travel for FBC members so if you see things that are of interest to you, let us know.

Committee Membership Update

- **Executive Committee:** *Rich Janssen (Chair), Vice Chair (vacant), Kathy Olsen, Casey Lewis, member-at-large (vacant), staff*
 - Meetings open to all- every other Tuesday at 10am.
- **Onsite Wastewater Treatment Committee:** *Mike Koopal (Chair), Abigail St Lawrence, Andy Crites, Tom Bansak (FLBS), Dean Sirucek, Craig Kendall (USFS), Diana Luke (Lake County), Eric Bryson (MACO), Eric Regensburger (DEQ), Eric Trum (DEQ), Sam Sill/Erica Wirtala (MT Association of Realtors), Evan Smith (CSKT), Rep. Dave Fern, Hailey Graf (Flathead CD), Hilary Devlin (Flathead Lakers), Kate Sheridan (Flathead Lakers), Lamont Kincaide, Roger Noble (Flathead Health), Ryan Richardson (River Design Group), Steve Rosso (Flathead Lakers), Susie Turner (Kalispell Public Works), Tim Burton (LCT), Tom Cowan, Tom Cox (Flathead Lakers), Daniel Congdon (DEQ), Peter Brumm (EPA), Sam Bourret (FWP), Jeff Tuttle (Flathead Lakers), Hailey Graf (Flathead CD), Heidi Fleury (Lake Co CD), Kate Cassidy (Flathead Health Dept.), Stephanie Adams (MACD)*
+ vacancies: Flathead County; Flathead City-County Health Dept., City of Whitefish
- **Education & Outreach Steering Committee:** *Casey Lewis (co-chair), Lech Naumovich (co-chair), Tom Bansak (FLBS), Ian Withrow (FLBS), Samantha Tappenbeck (FCD), Hilary Devlin (Flathead Lakers), Cynthia Ingelfinger (WLI), Sheena Pate (Geotourism Council/FRA), Evan Smith (CSKT), Eric Trum (DEQ), FBC staff*
- **Technical Committee Core Team:** *Mike Koopal (Chair); Myla Kelly (DEQ); Ryan Richardson (RDG); Tom Bansak (FLBS); Erin Sexton (FLBS); Sam Bourret (FWP); CSKT – TBD; staff*

<p>Flathead Basin Stormwater Project & Big Sky Watershed Corps Member Activities</p> <p>Emilie Henry, Big Sky Watershed Corps</p>	<ul style="list-style-type: none"> • Supplemental Members (based on project/need): <u>Septic leachate project(s); Stormwater project(s); Monitoring (potential)</u> <p>BSWC Overview</p> <ul style="list-style-type: none"> • EPA Grant Components (2020-2022) <ul style="list-style-type: none"> ○ Big Sky Watershed Corps (partial, 2 years) ○ Emilie Henry back for 2nd term- Shared with the City of Kalispell • Phase II: Stormwater Monitoring & Inventory <ul style="list-style-type: none"> ○ 2020 Phase I report available on FBC website • \$13,971k remaining in EPA grant-progress report submitted • Education & Outreach <ul style="list-style-type: none"> ○ Rain Garden Initiative ○ Adopt-a-Drain Program ○ Organize Local River Clean Up Event(s) <p>Stormwater Project Phase I Highlights</p> <ul style="list-style-type: none"> • Created inventory of existing stormwater infrastructure in the Flathead Basin including catch basins, storm lines, storm manholes, outfalls, and urban sub-basin boundaries. • Compiled existing data and mapped stormwater systems in urban areas. <ul style="list-style-type: none"> ○ Created ArcGIS model with sub-basins ranked on a scale of 1-6 based on sub-basin area, land use, and impairment status of the receiving waterbody. • Model results: 12 sub-basins ranked high priority (5 or 6) with 8 in Kalispell, 3 in Whitefish, and 1 in Polson. <p>Stormwater Project Phase II Update</p> <p><i>Education & Outreach Campaigns/Events</i></p> <ul style="list-style-type: none"> • Flathead Rain Garden Initiative <ul style="list-style-type: none"> ○ Helped build 10 rain gardens and collectively manage ~100,000 gallons of runoff annually • Adopt-a-Drain Campaign <ul style="list-style-type: none"> ○ Will recruit volunteers to clean of storm drains in their neighborhood. ○ Developed logo, working on materials, handbooks and training videos. • 2021 Flathead Waters Cleanup- Huge success! <ul style="list-style-type: none"> ○ Saturday event in August, cleanup any waterbody throughout the Flathead Valley. Afterparty with awards and prizes held at Sacred Waters Brewing. ○ Emilie developed the website, online map, surveys, flyers, etc. ○ Engaged over 201 volunteers, removed over 2,600 pounds of trash (including a refrigerator, couch, toilet, and lots more), and improved 114 miles of riverbank and lakeshore! <p><i>Stormwater Monitoring & Model</i></p> <ul style="list-style-type: none"> • Researching and experimenting with methods for improving accuracy of monitoring data including research on grab samples vs. automatic samples. • Improving model’s ability to accurately identify sub-basins with high polluting potential by developing higher resolution land use data and accounting for multiple land use types within one sub-basin. • Creating a roadmap and recommendations for future project objectives. <ul style="list-style-type: none"> ○ “How do we use the information gathered last year to improve stormwater management and ultimately, water quality?” <p><i>Proposed Future Objectives</i></p> <ul style="list-style-type: none"> • Increase capacity of cities/towns/MDT to manage and maintain stormwater infrastructure. What barriers exist that prevent cities/towns/MDT from effectively
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	<p>managing and maintaining infrastructure and how can FBC and partners help to remove these barriers.</p> <ul style="list-style-type: none"> • Develop BMP retrofit recommendations for high-priority sub-basins. This will likely require a significant amount of monitoring data and a more advanced model. <ul style="list-style-type: none"> ○ Are there any know experts in the basin that can help develop these recommendations? • Create an incentive campaign to promote green stormwater infrastructure in new development and roadways. This will be a huge endeavor and will require a lot of time, energy, and resources to pull off. <ul style="list-style-type: none"> ○ What options do we have for securing funding for this and how can we leverage our partnerships and/or develop new ones?
<p>Mike Koopal, Whitefish Lake Institute; Ryan Richardson, RDG; Kate Wilson</p> <p>Septic Leachate Projects Update</p>	<p>Septic Leachate Projects</p> <ul style="list-style-type: none"> • Awarded EPA Grant- \$26k for septic leachate work <ul style="list-style-type: none"> ○ \$8k to RDG Contract + \$15k to synthetic DNA project • GIS/Septic Risk Mapping Project- Phase 2 (2020-21): Southern end of lake is more difficult than Flathead County (Phase 1) since there is no electronic septic data <ul style="list-style-type: none"> ○ Tribal Council presentation/request to digitize CSKT septic data in progress ○ Lake County has declined our offer to assist in the digitization of the septic data but hopefully they will be doing this sometime in the near future. ○ Ryan is currently working on mapping unpermitted systems in the basin and exploring ways to continue on without the Lake County data. • Synthetic DNA study (Whitefish & Lake Mary Ronan)- spring 2022 <ul style="list-style-type: none"> ○ Cornell contract in development ○ Originally had planned to implement project in spring 2021 but with contract/communication delays we are holding off until 2022. The DNA tracers can be fabricated and stored in the meantime, so they are ready to go April '22. • Flathead Basin Wastewater Partnership Update <ul style="list-style-type: none"> ○ Flathead Wastewater Partnership was formed: partners in the basin working on wastewater issues (DEQ, SWCDM/MACD, FBC, Flathead Lakers, etc.). ○ Jillian Henrichon- BSWC (Ronan) working on the Septic Maintenance Reimbursement Program – Lake County Conservation District also assisting with the FBC Onsite Wastewater committee projects. ○ 108 current applications/participants, on track to spend 2/3 of funds. ○ FBC assisting with Education & Outreach on septic cost-share program. • UM Graduate Project: Looking into socio-economic impacts/barriers of septic leachate • UM/FLBS National Science Foundation Proposal – Approved! May-Oct 2022 <ul style="list-style-type: none"> ○ Nanette Nelson (FLBS) has been working with other UM faculty and partners looking at more technical options of addressing septic leachate as well as the socio-economic barriers/benefits. ○ NSF planning grant- smaller grant that will bring people together to discuss these topics that will talk about the different approaches. FBC members have been engaged and will be invited to a workshop and hopefully this will culminate in a bigger NSF project grant in the future. <p>GIS/Septic Risk Mapping Project- Phase 2 Update</p> <ul style="list-style-type: none"> • As part of Phase 2 of the mapping project, we have been looking into unpermitted systems in Flathead county (i.e., how many systems existed prior to the county permitting in 1978).

- Ultimately what we want to do is have Ryan and the committees work peer reviewed so we can present the information to municipalities, county governments, subdivision planners, real estate professionals, etc.

Phase 1 Overview and Phase 2 Progress: Ryan Richardson (RDG)

- Project goals: Identify existing septic system distribution and age of population; increase the committee's spatial understanding of septic system pollution risk. Create layers/maps for known risk factors for septic system failure/poor performance.
- Completed tasks: existing septic permit analysis (Flathead County), physical risk model (Flathead & Lake County), septic risk model (Flathead County), ArcNLET models (Whitefish Lake & Lake Mary Ronan), synthetic DNA tracer study work plan, unpermitted septic analysis (Flathead County).
- In-progress tasks: septic risk model (Lake County), validation of unpermitted septic analysis (post card survey), synthetic DNA tracer study individual site selection, final project reporting.
- Phase 1 physical risk map parameters are based on soil, depth to groundwater, distance to surface water, and slope. These were mapped and applied to the existing density of systems in Flathead county (based off of all existing permits entered in GIS database).
- Phase 2 is to create these physical risk maps and septic density maps for the southern portion of the lake (CSKT and Lake County).
- We have created an analysis of unpermitted systems prior to 1978 that target parcels within the Cadastral database (land ownership and tax information database) that have a high potential for an unpermitted septic system.
 - Systems pre-1978 were not required to get a permit.
- Unpermitted systems analysis:
 - Started with Cadastral database
 - Removed parcels of:
 - Public land
 - Blank owners and values
 - Building Value of Zero (value of structure assessment via tax info)
 - Building less than \$5,000
 - Sweet spot of not adding too many sheds/barns but including most residences
 - Building less than \$10,000 and greater than 10 acres
 - Only leave us with parcels that are likely residential
 - Link Septic Permit Database to Cadastral and remove all parcels with permits
 - Clip out areas with sewer distribution
 - Call communities to confirm sewer connection
 - Discussions with major water/sewer districts extent of services
 - Remaining parcels are identified as potential parcels with unpermitted septic systems (Results: ~8,000 parcels)
- Validation technique to validate the cadastral approach: We have the addresses and names of owners of these parcels (creating a random sample from these sites), so we will be able to send out a post card with a survey of 'do you have a septic system on your property' (possibly incentivize the survey).

ArcNLET Septic Analysis

- GIS based model to simulate nitrogen contaminate plumes from septic systems.
- Model based on physical characteristics of site and physics of groundwater flow and diffusion.

	<ul style="list-style-type: none"> • Output is a useful tool for communicating septic pollution issue but may not accurately depict nitrate concentrations given the complexity of the processes. • Able to apply this analysis to Whitefish Lake and Lake Mary Ronan with the goal of coming up with particle paths with each of the systems/sites to target for the Cornell Synthetic DNA project. <p>Synthetic DNA Tracer Study</p> <ul style="list-style-type: none"> • Unlike eDNA these are unique short strands of DNA created in a lab that can be used as a tracer in groundwater. • Research in Georgia shows effectiveness at using this technique for septic systems in proximity to lakes. • Work plan confirmed locations and timing of sampling but not individual systems. • Particle tracking module in ArcNLET refined our sampling plan. • Sampling Sites: <ul style="list-style-type: none"> ○ Lake Mary Ronan <ul style="list-style-type: none"> ▪ Northern Inlet (8 sites) ○ Whitefish Lake <ul style="list-style-type: none"> ▪ Lazy Bay (2-4 sites) ▪ Eagle Point (2-4 sites) ▪ Lion Mountain (2-3 sites) • Sampling Technique <ul style="list-style-type: none"> ○ Shoreline (100m along the shoreline, grab sample as close to shoreline as possible)—Van Dorn Sampler ○ Whitefish Lake Institute ○ Friends of Lake Mary Ronan • Sampling Frequency <ul style="list-style-type: none"> ○ Months 1-3—Every 3 days ○ Months 3-5—Every 5 days ○ Months 5-7—Every 10 days
<p>ARPA Water & Sewer Infrastructure Grants</p> <p>Autumn Coleman, DNRC</p>	<p>American Rescue Plan Act 2021</p> <ul style="list-style-type: none"> • Coronavirus State and Local Fiscal Recovery Funds (\$350 Billion) available to support public health response, replace public sector revenue loss, address negative economic impacts, premium pay for essential workers, water and sewer infrastructure, and broadband infrastructure. • \$906 million total state fiscal recovery funds • \$462.7 million necessary investments in water and sewer infrastructure <ul style="list-style-type: none"> ○ \$150M minimum allocation grants ○ \$10M regional water projects ○ \$750K technical assistance ○ \$43.3M state long range building projects (renewable resource grant, reclamation development grants, and Montana coal endowment program (formerly known as TSEP) grants. ○ \$6.4M administrative ○ \$249M competitive grants • Water projects – drinking water SRF eligible projects include treatment, transmission and distribution, source, storage, consolidation, creation of new systems, energy efficiency, capital projects, planning and assessment, and replacement of lead service lines, but no rehabilitation of dams and reservoirs. • Sewer projects- clean water SRF eligible projects include centralized wastewater treatment, energy and water conservation, stormwater, decentralized wastewater treatment, nonpoint source reduction projects (agricultural BMPs, resource extraction or

	<p>contaminated sites, landfills, habitat protection and restoration, groundwater protection and restoration, surface water protection and restoration), and planning/assessment.</p> <ul style="list-style-type: none"> • Water and Sewer funding for local governments: <ul style="list-style-type: none"> ○ U.S. treasury local fiscal recovery funds ○ State of Montana RRGL and MCEP ARPA funds ○ State of Montana minimum allocation grants \$150M gas tax allocation <ul style="list-style-type: none"> ▪ Minimum Allocation Grant Program ARPA (arcgis.com) ○ State of Montana competitive grant program \$25M max <ul style="list-style-type: none"> ▪ Competitive Grant Program ARPA (arcgis.com) • 29 project applications from Flathead and Lake Counties requesting \$68M <ul style="list-style-type: none"> ○ View them here: https://arpa.mt.gov/
<p>CSKT Water Compact Implementation</p> <p>Arne Wick, DNRC</p> <p>Seth Makepeace, CSKT</p>	<ul style="list-style-type: none"> • Negotiation with the Tribes, Montana RWRCC, and the federal team accelerated in 2008. In 2013, there was an introduction of the settlement to the Montana legislature. In 2015, the MT legislature passed as SB 262. In December of 2020, the US Congress passed as the Montana Water Rights Protection Act. <p><i>Tribal Water Rights</i></p> <ul style="list-style-type: none"> • Non-consumptive aboriginal rights (time immemorial priority date) <ul style="list-style-type: none"> ○ Instream flows- three categories on the reservation based on location ○ Minimum irrigation project reservoir levels ○ Natural level- wetlands and high mountain lakes ○ Natural pool (<2,883.0 ft) of Flathead Lake ○ Off-reservation instream flows – Kootenai, Swan, and Lower Clark Fork • Winters-type rights (treaty priority date) <ul style="list-style-type: none"> ○ Flathead Indian Irrigation Project- irrigation right, with the use dedicated to the irrigation project and project water users ○ Allottee water rights ○ Existing and historic Tribal uses- registration process ○ Flathead System Compact Water <ul style="list-style-type: none"> ▪ 229,383 af direct flow right from Flathead System, of which up to 90,000 af can come from Hungry Horse Reservoir storage • Co-Owned rights <ul style="list-style-type: none"> ○ Co-Owned MTFWP wetlands rights on the Reservation ○ Co-owned MTFWP instream rights off the Reservation (priority date is Murphy right date or Milltown date 1904) • Upcoming Work <ul style="list-style-type: none"> ○ Registration of existing and historic Tribal uses of water ○ Montana Water Court decree process ○ Instream flows- other instream flows category and federal irrigation project (FIIP) instream flows (phase in over a schedule) • Water Rights around FIIP Adaptive Management to meet Compact Implementation <ul style="list-style-type: none"> ○ Basic premise: protect existing uses of water while inserting senior instream flows. Do this by applying water conservation and irrigation project modernization. ○ Instream flows set as monthly flow values, in cfs <ul style="list-style-type: none"> ▪ Minimum enforceable instream flow schedule- minimums, always met ▪ Target instream flows- normal year, wet year instream flow schedule – higher flows intended to maintain and form ecological attributes of a stream/floodplain system. ○ Irrigation supply – River Diversion Allowance, set as seasonal volume in acre-feet <ul style="list-style-type: none"> ▪ Dry, normal, wet year volumes ▪ Set at a source of supply at headworks or reservoir outlet

	<ul style="list-style-type: none"> ▪ Allows irrigation community to manage water within a service area ○ Work associated with the federal irrigation project (FIIP) <ul style="list-style-type: none"> ▪ Compact Implementation Technical Team- since 2016 ▪ FIIP Rehabilitation and Betterment ▪ Large project pipeline ▪ Water savings distinction between Operational Improvements Projects and Rehabilitation and Betterment projects.
FBC Election: Vice-Chair & Executive Committee seat Kate Wilson	<p>Motion to appoint Casey Lewis as FBC Vice-Chair (Jim). Second (Kathy). All in favor. <i>Motion passes.</i></p> <p>Motion to appoint Jasmine Courville-Brown to the executive committee (Jim). Second (Casey). All in favor. <i>Motion passes.</i></p>
Public Comment Kate Wilson	<ul style="list-style-type: none"> • None
Wrap up & Adjournment	<ul style="list-style-type: none"> • Next meeting dates (2022): <ul style="list-style-type: none"> ○ Winter- March, 2nd 2022 (TBD) • Motion to adjourn (Randy). Second (Sandy). All in favor. <i>Motion passes.</i> • Meeting adjourned at 5:00pm.

4. Action Items				
Action		Assigned	Due Date	Status
1	Send out draft minutes	Cassidy Bender	9/22/2021	Complete
EXISTING ACTION ITEMS FROM PREVIOUS MEETINGS				
2	Myla will invite Jim Dunnegan to jointly present on the selenium topic.	Myla Kelly	On Hold	On Hold
3	Kate to reach out to Erin Sexton at the FLBS on transboundary issues and filling the BC vacancy on FBC.	Kate Wilson	4/15/2021	
4	Draft joint UC ³ letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020-21 season	Unknown if warranted
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 BC rep vacancy (ex-officio)	Kate Wilson	On-going	On-going