FLATHEAD BASIN COMMISSION

Swan Lake Ranger District 200 Ranger Station Rd, Bigfork, MT

October 16, 2019

AGENDA

10:30 AM	Welcome & Introductions	Rich Janssen, CSKT (Chair)
10:40 AM	Discussion/approval of DRAFT 6/26 Minutes	Kate Wilson, FBC staff
10:50 AM	Budget and Grants; Stormwater Project Update; ACTION: EPA Grant/Stormwater Project Approval, Line Item Budget	Kate Wilson; Casey Lewis, City of Kalispell, Mike Koopal, Whitefish Lake Institute
11:20 AM	Staff Update: Activities/Events; Projects; Annual Report	Kate Wilson
11:45 AM	Agency and Legislative Updates/Discussion	Mark Bostrom, DNRC
12:00 PM	LUNCH (provided)	
12:45 AM	Septic Leachate and Local Government Interim Committee Updates	Mike Koopal; Ed Lieser, FBC Vice Chair; Hillary Hanson, Flathead County Health Department (invited)
	Bonneville Power Administration Fish & Wildlife Mitigation Panel	
1:15 PM	Program Overview/Background	Mark Reller, BPA
1:45 PM	BPA Fish & Wildlife Mitigation Efforts – FWP Projects	Matt Boyer, FWP
2:15 PM	BPA Fish & Wildlife Mitigation Efforts – CSKT Projects	Les Evarts CSKT
2:45 PM	BREAK	
3:00 PM	DEQ Water Quality Update	Myla Kelly, DEQ
3:30 PM	Flathead Lake Biological Station: Long-term Monitoring - Water Quality Trends	Jim Elser, FLBS
4:00 PM	Discussion: Reinstatement of FBC Monitoring Committee; Upcoming Meeting Agenda Items; Emerging Issues	All
4:15 PM	Public comment	Rich Janssen
4:30 PM	Discuss items/dates for next meeting(s) & Wrap Up Options: Jan 22, Jan 29, Feb 5, Feb 12; Location: Kalispell	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:	October 16, 2019	Time:	10:30 AM – 4:30 PM	
Minutes Prepared By:	Kate Wilson	Location:	CSKT Tribal Council Chambers (Pablo, MT)	
List of Acronyms				

AIS	Aquatic invasive species	EPA	US Environmental Protection Agency		
BPA	Bonneville Power Administration	FBC	Flathead Basin Commission		
BSWC	Big Sky Watershed Corps (AmeriCorps program)	FLBS	Flathead Lake Biological Station		
CSKT	Confederated Salish & Kootenai Tribe	FWP	Montana Fish, Wildlife & Parks		
DEQ	Montana Dept. of Environmental Quality	NPS	National Park Service		
DNRC	Montana Dont of Natural Resources & Conservation	UC ³	Upper Columbia Conservation		
DINKC	Montana Dept. of Natural Resources & Conservation	UC	Commission		
EQC	Environmental Quality Council (Interim)	USFS	US Forest Service		

1. Welcome and Introductions

Rich Janssen	Welcome. Rich opened the meeting and conducted a roll call. Quorum confirmed.
Introductions (Roundtable)	Each participant introduced themselves including name, location and organization/interest that they are representing. Confirmed quorum present for voting matters (8 voting Commissioners required).

2. Attendees

Commissioners/staff: Rich Janssen (CSKT), Mike Koopal (Whitefish Lake Institute/UC³), Steve Frye (Governor-appointed member), Randy Brodehl (Flathead County Commission), Dean Sirucek (Flathead Conservation District), Mark Bostrom (DNRC Helena), Jack Potter (Governor-appointed member), Myla Kelly (DEQ – for Tim Davis), Mark Rellar (Bonneville Power Administration), Craig Kendall (USFS), Kate Wilson (DNRC/FBC & UC³ Commission Administrator) *Voting members underlined

Public/Other: Casey Lewis (City of Kalispell), Lamont Kinkaid (Association of Realtors, Montana Water Specialists), Onno Wieringa (Flathead Lakers, resident), Kate Sheridan (Flathead Lakers), Hilary Devlin (Flathead Lakers), Matt Boyer (FWP), Les Evarts (CSKT), Dave Hadden (Headwaters Montana), Kianna Gardner (Daily Inter Lake), Hailey Graf (Flathead Conservation District), Tom Bansak (Flathead Lake Bio Station), Jim Elser (Flathead Lake Bio Station)

3. Agenda and Notes, Decisions, Issues

Presenter	Topic/Discussion		
Kate Wilson,	Discussion & approval of draft Minutes		
Commission	 June 26, 2019 (Pablo, MT): Quorum and notetaker; official minutes). 		
Administrator	 Amendment: Steve Frye listed twice, correct 'senators' to 'representatives' and correct 		
	the spelling of contact for southern BC development.		
	 Motion to approve as official minutes as amended (Dean S). 2nd (Steve F). All in favor. 		
	None opposed. <i>Motion Passes</i> .		
Kate Wilson	Budget & Finances		
	FY19: \$21,175 (operations budget) expended on: member travel, meetings, annual		
	report/materials, limited staff time.		
	• FY20: \$36,437/\$41,175 (operations) and \$66,686/\$77,000 (personnel) available		
	 \$4,738 expended: member travel, meetings, name plates, Transboundary Columbia River 		
	Basin Conference sponsorship		

- Since Kate is half-time FBC and half-time UC³, the new support (admin) position will also be able to be paid out of the personnel budget.
- o Personal services can be switched to operating if we aren't going to spend it all.
- Draft line item budget presented for discussion. 'Plan A' (previously approved):

'PLAN A' FBC FY20 LINE ITEM BUDGET					
AMOUNT	MOUNT CATEGORY NOTES				
\$6,000	Member travel and meetings	Includes facility fees and refreshments for meetings			
\$12,000	Website and materials	Contractor currently on contract with DNRC/FBC for this purpose			
\$15,000	NPS Pollution/Stormwater Project	City of Kalispell/FBC Joint Project. \$12,250 for BSWC member, rest for travel reimbursement and location costs			
\$3,000	Annual Report	Design/layout/printing			
\$3,000	Conference/meeting sponsorships	Transboundary CRB Conference, NAISMA, PNWER, etc. Exec Comm can prioritize			
\$1,175	Other projects/contingency				
\$40,175	TOTAL				

• 'Plan B' drafted as FBC applying for EPA grant that could potentially cover the BSWC member and stormwater project expenses; would leave additional funds available for other projects.

'PLAN B' FBC FY20 LINE ITEM BUDGET					
AMOUNT	CATEGORY	NOTES			
\$6,000	Member travel and meetings	Includes facility fees and refreshments for meetings			
\$12,000	Website and materials	Contractor currently on contract with DNRC/FBC for this purpose			
\$0	NPS Pollution/Stormwater Project	City of Kalispell/FBC Joint Project. \$12,250 for BSWC member, rest for travel reimbursement and location costs			
\$3,000	Annual Report	Design/layout/printing			
\$6,000	Conference/meeting sponsorships	Transboundary CRB Conference, NAISMA, PNWER, etc. Exec Comm can prioritize			
\$13,175	Other projects/contingency				
\$40,175	TOTAL				

- Discussion of sponsorship opportunities target conferences and organizations that have
 missions that align with FBC and/or are being hosted in Montana. Examples include but are not
 limited to the North American Invasive Species Management Association (NAISMA), the Pacific
 Northwest Economic Region (PNWER), the Montana Water Summit, and the Crown Managers
 Partnership (CMP).
- Crown Managers Partnership: Crown of the Continent ecosystem, which encompasses the
 Flathead Basin, focused on natural resource management and increasing coordination and
 collaboration between land/water managers. Kate sits on steering committee representing FBC,
 UC³ and DNRC. They request funding from each member. FBC willing to split the \$5k annual
 membership request with DNRC? Yes.
- ACTION: Circulate March CMP forum information
- Crown Managers Roundtable differences between the Crown Managers Partnership and Crown of the Continent Roundtable. Roundtable more 'community-based.' Different structure, not really affiliated with the CMP.
- If we get the EPA Grant, we may also need to request spending authority (from DNRC).
- <u>Motion</u> to approve Plan B modified budget if FBC gets EPA grant and executive committee can track progress. (Dean S). Second (Randy B). All in favor, *motion carries*.
- Mark: Background on EPA grant new this year. Letter received at FBC office in Kalispell but addressed to Director Tubbs. Interesting new grant called "Multipurpose State & Tribal Assistance Grant." Agencies accept or decline allotment. Agencies in MT that regulate environmental statutes – DNRC, DoA, DEQ. Looking for partners at the state level that implement any of the federal environmental regulations.
- Discussed with FBC exec committee a month or so ago quick turnaround time and could have gone to other DNRC programs, but Mark gave first option to FBC. Non-point or point source control will be focus. We sent letter accepting funding but need to put in application/project proposal. FBC through DNRC as attachment putting in application singularly – not bound by performance partnership agreement (that exists with DEQ).
- Different levels of grant depending on state population and implications of regulatory levels (per state).
- Proposed budget: line item budget to expand scope of Kalispell stormwater partner project (Kate summarized each component)
- Discussion on EPA grant:
 - Concerned that we're losing focus from inventory/survey on stormwater. Transition a bit more to Education & outreach. Only three sites with multiple sample events – things that trigger stormwater events. Casey: Feasibility of stormwater sampling, training for BSWC member, hard to schedule rain event. Kept fairly small due to logistics.
 - BSWC research/elaborate on BMPs/methods for stormwater sampling. Include in report.
 Jack: With more sampling, it would improve outreach. E.g. what are you finding in the runoff. What would happen once this completed. Opportunistic sampling lots of parameters but need to be able to be capture that data.
 - Casey: This is a really a multi-year project. Gain information available in basin. Creating prioritization of areas most likely to be impacted by stormwater. In future years, move into stormwater sampling or expanding geographic area. Results to inform outreach efforts. How to mitigate the impacts and work with city governments, residents and local groups to mitigate stormwater impacts more.
 - Some dry streams that end up in waterbodies. Value in sampling soils in these areas to see if there is elevated levels of anything built up? Casey: Montana MS4 permits quite vague in what's required for monitoring specifically. Lots of variables that can influence stormwater samples. Difficult to get comparable, meaningful data sets.
 - Hailey Graf: Partnership starting Rain Garden Initiative with City of Kalispell. This would further the partnership, but Conservation District (CD) to develop and handle the bulk of

- the raingarden and storm drain programs. BSWC member can assist with outreach and occasional education programs, but bulk of that work will be conducted by CD staff.
- Need quality data before we really figure out how to assess what's actually coming into the water basin. Got to be able to identify the non-point source outfalls and evaluate the effects of the point source (e.g. Ashley Creek for City of Kalispell). Can't do that until we know where the outfalls are (focus on first). Start with right information before we can develop an assessment. Get map put together (GIS overlay). Casey: Absolutely mapping and sampling will be priority. BSWC member will not be the only one doing the work for all of the projects. A lot of the funding to really develop programs and make useable products. Sample 4 times a year sometimes can be hard to get samples at that rate.
- Mark B: Since this is a new EPA grant program, could be some feedback that comes back from initial proposal to EPA. Not sure that education and outreach fits into MS4 permit. Casey: It does. Mark: Going to have to get this proposal in soon (e.g. before our next meeting). Could be negotiations with grant that move forward. Ed: Seems like we can be most responsive through the executive committee can operate by conference call. Provide product to review prior to call. Steve: As long as Exec Comm knows boards priorities (e.g. sampling and mapping/inventory).
- Suggestion that if we beef up monitoring component, look also at other monitoring in the basin. Look at other sites that have been monitored in the past. Follow up testing in data.
 FLBS (Tom Bansak), Big Fork Stormwater Project (Lamont Kinkaide). Might be good report to review as we go to write the methodology for sampling.
- Tom Bansak: Most powerful new data is based on old data did for FBC watershed-wide in 1997. If you have limited funding/capacity, look at old sites that have existing data already. Timing of sampling is everything have to drop everything and go get sample while water moving (highest concentrations). FLBS also got a BSWC member with a focus on watershed education for K-12 could maximize our efforts and work together, cohort-building. CMP and Lake County BSWC members worked together a lot, strong working relationship and friendship.
- o Emphasize as phased project additional funding becomes more possible.
- Motion: Kate and Casey modify EPA grant proposal to emphasize GIS mapping and initial monitoring, conduct public outreach as appropriate given stormwater priority; final draft be presented to the executive committee for review (Dean S). Second (Randy B).

Staff Update work plan, website

- Previous meeting follow-up/planning for next meeting
- Executive Committee planning/meetings (bi-weekly)
- Monitoring Flathead Basin natural resource issues
- Aquatic invasive species media/outreach support
- Meetings/conferences: CMP (monthly calls); Transboundary Columbia River Basin Conference (Kimberley, BC); Western Regional Panel (Missoula, MT); Lakes Commission (phone); UC³; Conservation District Area meetings (Hamilton, MT); Governor's Office check in (administrative attachments)
- Septic leachate support Local Government Interim Committee
- Grant/funding tracking and writing
- Website Update:
 - Still planning to transition from flatheadbasincommission.org to <u>flatheadbasincommission.mt.gov</u> (using vendor to assist with design, layout, content and navigation), but project delayed due to complications with other website (invasivespecies.mt.gov) which is a higher priority to launch. This site to be launched any day, can focus on FBC page.

Old website being shut down but new one will be stood up. It's difficult though, as contractor has to get access to state server to be able to build/maintain website. This has been very difficult with the invasive species/UC³ website. RFP process resulted in vendor selection (Windfall, Missoula-based firm) last year. Kate to work with procurement on whether or not this contract can be extended/amended to increase work on FBC site. Might have to go out for new RFP process. Mark: Very important that all administrative attachments/title II agencies have the mt.gov URL. It's not appropriate for any of them to have a .org (non-profits, foundations, etc.), including FBC. Kate: suggest building other pages on .org site and not being in any hurry to transition to mt.gov site – this way they pages are built and can just be moved over when we're ready. ACTION: Still need bios from: Dean Sirucek, Chip Weber, Tim Davis, Jason Gildea. DNRC/FBC staff to maintain content once designed and launched with help of Windfall. Chip Weber retiring, will need to ensure we get USFS representation on FBC – Craig Kendall or Chip's replacement? Kate working with Governor's Office/DNRC on getting reappointments in place for Jack and Jasmine. Also, have received an application for the vacancy. Should happen soon. Mark **Agency and Legislative Updates** Bostrom, DNRC's Conservation & Resource Development Division has come out with lots of grants and **DNRC** opportunities for partners. Aquatic invasive species grants funding source changed to AIS special revenue (from natural resource fund). This was initially provided through 'crucial state need' mandate/funds. Define and propose what next big crucial state need might be - that's the role of boards, commissions, state governments. Good Neighbor Authority program in development within Forestry Division. In process of interviewing for the GNA Bureau Chief. Randy: Hellroaring project example. Speed at what's making that happen is where GNA comes in. Litigation potential goes down as well. Discussion with Jim Simpson at previous meeting: FBC to take on a big project potentially, something like delisting Ashley Creek. Given reduced beneficial use status because nutrient loading so high. NPS pollution, excess septic leachate. Something to consider for future projects. Myla Kelly – Water quality standards, Lake Koocanusa selenium issue. EPA has selenium limit guidelines, but not regulating currently. The selenium levels are higher than this guideline in BC, but right at the threshold at the BC/MT border (Lake Koocanusa). Hillary **Septic Regulations in Flathead County** Hanson, In MT, you can have four different kinds of health departments (have authority to do septic Flathead regulations). Make up of boards across state will differ. County Health Dept – most common in 56 County; Ed counties (probably 85-90%). There is the ability to have a City Health Dept – can do as city, district Lieser; or city/county. You can also form a district health Dept. Important because these are the folks Mike Koopal that are making the regulations about septic and wastewater. Powers and duties of local boards – make regulations more stringent than state standards. Must look at evidence-based standard. Flathead County: Two sets of regulations- 1) Lays out permitting process and deviations (from rules) and variance process; violations and penalties; minimum setbacks and separation distances (state law). 2) Flathead County Construction Standards – DEQ Circular 4 and increased stringency to require uniform pressure distribution (dosing systems vs. gravity) and increased minimum tank size to three bdm. No building permits needed so often don't catch until failure system, so this helps reduce the amount of failing systems in the county. Triggers: New system, change of use (increase of bedrooms, building a guest home – this one is hard unless self-reported given no building permits required), vacation rental (regulations and

statewide public accommodation rules), failing system (self-report or reports from neighbors. If

not failing in obvious manner, difficult for health dept to get involved). Whether or not county has made special rule on vacation rentals, can default to state public accommodation rules. A lot of these situations around lakes – six bdrm home with year-round use with a septic system built for a two bdrm house.

• Discussion:

- How do you deal with the cumulative effect of growth? Hillary: NPS pollution very difficult. Evidence around age of septic systems.
- Early 1980s conducted soil pit test to see if water dissipated quickly. Soil horizon profile.
 Early 1990s that changed so that you had to have some residence time in soil to update nutrients. Hillary: permitting system started in 1978 so probably that's when residence time came into effect. Some of the solutions that are being discussed at county levels are absolutely effective but must be done county-by-county currently; need statewide changes to do anything else, bigger or widely consistent.
- We're hearing that we're not adequately addressing failing systems. Since this is a
 priority for FBC, suggest developing committee to have parallel effort with Local
 Government Interim Committee. Either work on it as FBC or county health board dive
 into solutions to identified issue.
- Hillary: Health Board is very concerned that regs aren't covering issues around the water. We talk about a lot of lakes probably open to looking at the issue more closely. Need to demonstrate change needed to regulation (state).
- FLBS as potential partner to develop evidence needed to change regulations. Jim Elser:
 Haven't had a good handle on where septic coming from. Information is very old and
 sketchy and back of the envelope. Hillary: Funding for studies but also costs of systems.
 As we look at regulations, people most upset about potential costs of upgrades.
- Strengthening data is precursor to proposing regulatory changes. Tom: Last thorough groundwater study on Flathead Lake for septic was in 1999-2000. Due to do over again – WLI did most recent septic study in basin. We have good models to emulate.
- Ashley Creek TMDL allocated 14% of nutrients to failing septics as well.
- Critical mass of information needed, or would more data/research help move this forward? Mark: Cumulative effects not taken into account for water quality and septic standards. Probably enough information to start putting it together to know where we should focus research. But then where do you go with it? Cost of onsite fixes are high.
- Randy: Providing unfunded mandates to counties doesn't work very well. Would need to identify specific sources of funding to move this forward. Flathead County 'complaint driven,' vs approaches like Lewis and Clark County (proactive). Not sure there is an appetite for increasing local taxes in the basin.

Septic Leachate Updates/Path Forward

- Ed: Senate Joint Resolution 3 (Senator Thompson, Hamilton) Study Bill sent to Local Government Interim Committee. Ed has attended two since past FBC meeting. Significant learning curve given that this is not a natural resource committee learning about how septic systems work in the state. DEQ provided information at the past meeting, sanitarians presenting at the next meeting. Start with a lot of information and then gradually work towards solutions (direction). A lot of information on biology, science and existing policy.
- Interesting presentation/input given by League of Cities and towns (Tim Burton) correlation between exempt wells (10-acre feet/year and 35 gallons/minute) and septic systems. Quantified number of exempt wells and made inference that there is a close correlation. Exempt from water rights for domestic use only (18k estimated in MT). In next 5-10 years they project there will be 50k exempt wells so could see this large increase in septic systems as well.
- Emphasis on current regulations what required to get a permit. Not looking at aging systems as much. Tried to get committee to investigate thoughts about maintenance, what defines aging

- system (lacks definition now). Lobbyist for Realtors opposed to any new regulatory actions (they argue that enhanced regs could be an impediment to sales).
- November 13th Legislative Services requested Mike Koopal, Hillary Hanson presentations.
- Local Government Committee going to be looking for solutions opportunities to offer solutions and recommendations to that committee would probably be credible and be viewed favorably. They want to get up to speed on what the problem is and we can help them with suggestions.
- Mark: Regulation could happen at multiple levels state level (most vulnerable), counties, conservation districts (est. local land use regulations). Ex: bison ordinances based on seasonal grazing anything that effects land and water. Conservation District, if there was an imminent threat, has the ability to institute regulations. Montana only state in the nation that has this.
- Mike: Potential to form committee specific to septic leachate? Relevant to have a discussion locally here in Flathead County. Evaluate science, potential policy/science/issues to parallel what is happening at the state level. Working on this issue in Whitefish since 2012 trying to move science into social realm is where it gets complicated. Whitefish process been frustrated with lots of hurdles. Flathead Basin scale would be appropriate at this point.
- Motion: FBC to establish a septic leachate committee (Jack). Second. (Ed). Discussion: Local
 Government Interim Committee ends Sept 2020 short term committee, could sunset end of
 August 2020. Funding going to have to be part of that discussion with the Committee. If we come
 up with some recommendations, don't want it to end up as unfunded mandate to counties.
 Identify any financial impact at the very least, possible solutions to address. All in favor, motion
 passes.
 - Volunteers for committee: Mike, Ed, Hailey Graf, Hilary Devlin/Kate Sheridan, Tom Bansak, Dean S, Lamont Kinkade, DEQ (potentially – will go to director for that), DNRC (to be delegated). Kate will facilitate.

Mark Reller, BPA; Matt Boyer, FWP; Les Evarts, CSKT

Bonneville Power Administration Panel: Overview of BPA and Fish & Wildlife Mitigation (Mark Reller)

- BPA was created by an act of Congress in 1937 to market electric power from the Bonneville Dam located on the Columbia River to construct facilities necessary to transmit that power. Congress since designated Bonneville to be the marketing agent for power from all of the federally owned hydroelectric projects in the Pacific Northwest. Mark R -30 years on the job.
- Purpose: conservation and electricity. Development of renewables. Economical and reliable power supply. Protect, mitigate and enhance fish and wildlife resources. Libby and Hungry Horse in MT – construction and mitigation. Not impacts of operation – though this has happened to some extent at both projects.
- End of building of the dam era 1975 Libby Dam one of last federal hydro projects. Bit of 'food fight' started on how to meet power needs moving forward. Electrical forecasting at the time was not very accurate 7-10% growth rate (double demand every 10 years). Built Colstrip 1 & 2, planning for 3 & 4. Looking at Hanford Nuclear Plant. Needed better power planning in northwest.
- 1979: Anadromous fish on the Snake River listed as endangered hydro not the only impact but it was the revenue source that could help the fish.
- Structure of Federal Power Act: Idaho, Washington, Montana, Oregon two representatives from each state. Some of the best analytics All funding providing by rate payer funds through BPA. Coops and municipalities get first priority then private utilities.
- Northwest Power & Conservation Council (NWPCC) products created: 1) Power Planning reserves, reliability of system, energy conservation targets, public information and solicit feedback on planning. As they look at new resources to add to system, Act specifies rank order. Number one is conservation be efficient with the energy you have. Number two is renewables. Third is waste heat and fourth, all others. Northwest relatively low carbon in part to this Act. 6,900 megawatts of conservation acquired in NW.
- All local co-ops primarily use BPA, many 100% of energy and capacity.

- Fish Plan: Protect and enhance spawning grounds and habitat. Look at impacts of building the dams and how to mitigate for that. Not just meeting obligations of Act, but much more data collection, . Bull trout, cutthroat, and sturgeon (Kootenai).
- "In Lieu" expenditures: Relating to aquatic invasive species not supposed to supersede the authority of the state. Can add to state management but must augment state efforts. Have funded (several million dollars): boat inspection standards, boat inspection training, anti-fouling coating research. Things that cover the entire region resist specific boat inspection stations, etc. because many states, large footprint. We can't support that large of a program. All of the funding that has gone to AIS to date has come from power revenue, not fish mitigation or endangered species. Known impacts that we have to pay for I get the insurance policy argument re: AIS but at what cost? What do we have to take away from to do that or how much would we need to raise rates? Imagine that we'll continue to fund at the regional level Pacific States Marine Fisheries Commission's Columbia River Basin AIS group.
- BPA: Obligation for fish and wildlife. Back in Gov. Stan Stephens administration funded \$12.4M trust fund for wildlife impacts turned over to state (settlement) for construction inundation impacts of Libby and Hungry Horse (1988). Still have \$11.5M in the bank have been operating off of interest to date. Leverage as matching and manage well. That investment is why I'm on the FBC. The work you do is important to the fish and wildlife of the region.

• Discussion:

- o Rich: Tribes don't have that funding mechanism to fund an inspection station. Any chance that boots on the ground funding will become available from BPA funds? Mark R: Question is what would you be willing to let go of? Contracts through 2028. Power purchase agreements for wind plus storage or solar plus storage are coming in well below \$35/megawatt of energy. Costs on falling trajectory competition to BPA (hydro). Co-ops and municipalities will have to decide how to fund in future between hydro and other renewables.
- Jack: What about impacts of Columbia River Treaty? Mark R: Pre-purchased 60 years of flood control in treaty Libby can draw down 100 feet, Hungry Horse 200 feet. If US is to use own storage capacity (not Canadian reservoirs), say goodbye to Bull trout in those systems. Dewatering substrates, pulling water away from shoreline, etc. Change whole food web. The other element of the treaty is a payment obligation to Canada. When you store water in Canada, more energy produced downstream in US. Canada gets a share of produced revenue can affect BPA as well. Regional recommendation result of many years of work and negotiating, but hard to say what the final outcome of the Columbia River Treaty.

Bonneville Power Administration Panel: Overview of Montana FWP Allocation (Matt Boyer)

- Hydro only energy source that internalizes fish and wildlife impacts.
- Map: area the size of France showing major dams and species of fish. Montana the headwaters.
- Libby and Hungry Horse have 40% of the storage in the Columbia River Basin.
- Resident fish stressors (bull trout, cutthroat, red band rainbow, sturgeon). We've had a Fish and Wildlife mitigation since 1991 at Hungry Horse.
- Fisheries Mitigation Plan: FWP and CSKT both receive allocation and often work together on projects.
- Flathead River Subbasin Management Plan: Limiting factors to fish and wildlife (losses from
 impoundment and hydro operations, physical habitat alterations, non-native species
 introductions). Proposals submitted to science panel who submit recommendations to NWPCC.
 Make sure these fit with policy and then make their recommendation to BPA for funding
 consideration.
- Hungry Horse: Worked with BOR to improve reservoir productivity. River operations was a focus
 of many early mitigation efforts.

 Physical habitat alteration: restore connectivity (Murray Creek, Hungry Horse), habitat restoration (South Fork Coal Creek, North Fork Flathead River), isolation management (nonnative species interactions).

Bonneville Power Administration Panel: Overview of CSKT Allocation (Les Evarts)

- Restoration opportunities on protected sites. Arlee state fish hatchery example: Dykes in river.
 First habitat acquisition of CSKT purchased with mining impact funding (ARCO) on Clark Fork.
 BPA did participate in restoration. These projects are very expensive –not ideal. Really want to be able to protect them before the impacts are this great and costly.
- Mission Creek Water Quality Project: 2005 first BPA project for CSKT. Restoration costs over \$1M.
 Two major irrigation waste ways contributing poor water quality to Mission Creek. Railroad impacts as well riprapping in right of way. Wetland cells develop to absorb and clean irrigation waste water. You wouldn't invest this kind of money in a project like this unless you owned the land and you could protect your investment.
- Since begun, 40% loss of historic spawning habitat behind Hungry Horse Dam. 83 BPA projects completed, 64km of stream protected, 13,700 acres of ecologically sensitives wetlands/riparian areas.
- Jocko River: Tribe has done a lot here because really a stronghold where we have an opportunity to turn things around for native species. Since 2004, purchased all properties in area with partners 57 projects (31 BPA funded). To date: 77% of stream protected, 50% of ecological floodplain protected (including moving 15 home sites from floodplain), 5 home sites removed from tributaries. One 40-acre parcel in private land ownership family finally offered to sell to CSKT.
- Swift Lazy Project: Swift Creek major tributary (full native species assemblage). Major water
 quality project. Drinking water source for Whitefish. This project was 21 sections, 14k acres
 (previously Weyerhauser land, now DNRC). Many partners including Glacier National Park, DNRC,
 USFS, conservation easements, etc.
- Non-native species introductions: 1920-1960 trout planted in fishless lakes (USFS). Habitat was
 devoid of fish (high mtn lakes primarily). Replacing with native cutthroat. Sunburst Lake,
 Evangeline, Camas Lake, Camas Creek drainage, Glacier National Park in future will be habitat
 for westslope cutthroat and bull trout.
- Lake trout: Bull trout majorly adversely impacted by presence of introduced lake trout. Mysis shrimp really upset ecology of Flathead Lake. Data gap between 1982-1990. Adult bull trout index from tributaries in North and Middle Forks.
- Flathead Lake and River Fisheries Co-Management Plan: Goal balance tradeoffs between native species conservation and nonnative species.
- Increase harvest on lake trout. Mac Days has gone a long way in education the public and increasing the ability to properly identify fish. 2012 Netting planning initiating Not popular but needed to do more than angler harvest. Extensive Final Environmental Impact Statement to move forward with removal. 2014-2018: 339,478 lake trout (84 bull trout by-catch). Two netting boats now have had to learn a lot as we go. Pend Oreille model has worked well though they have a different goal (extirpation of lake trout). BPA does help fund Mac Days, as well as fishery monitoring.
- CSKT has a no-waste policy on netted fish commercial harvest and canning facility developed. Helps fund project and keep it going on Flathead Lake for the long term (Native Fish Keepers).
- No bump in bull trout redd counts yet. Lake trout getting harder to catch (use a lot more net).
 Optimistic results, anecdotal from anglers mostly at this point, but hopefully will see redd counts improving.
- Westslope cutthroat status review/inventory: Magpie Creek barrier installed, reconnected available habitat, removed brook trout. Can't get rainbow into drainage now. Replaced culvert.

- Getting populations pretty low potential to stock in YY males. Everytime you get a cross, they produce males and breed themselves out of existence.
- Flathead Reservation Irrigation on the Jocko diversions usually barriers, though some incomplete. Some rainbow got in but 95% pure westslope cutthroat genetics. Jocko Canal ladders trying to enhance genetics of Upper Jocko (slide back to pure westslope population).
- Discussion:
 - Climate change impact on redd counts? Matt: Temperature winter flows key to egg survival. Precipitation levels increasing in March and November, concern for scouring eggs.
 - O How has suppression efforts effected size distribution of lake trout? Slot limit? Les: Sizes going down as you would expect. Slot limit and big fish limit is casualty of us not moving fast enough. Committed pretty clearly to a recreational 'big fish fishery' (e.g. big fish) but that may be changing in future. Big fish haven't been too badly impacted thus far. Don't target big fish when we net, lots of big fish out there. Mac Days all about quantity of fish. Matt: 100 fish limits and then slot limits (size) really to keep public engaged and biological component (big fish eat small fish). Get that it is confusing to have both (large limit and size limit).
 - Any telemetry work going on now? Matt: Not currently. Les: Lake trout spawning all over the place – lots of habitat.
 - Measure mercury levels? Matt: Yes, FLBS has helped too. Les: Probably have the best data on mercury levels. Limit levels at food banks as well (very cautious). Big fish go to compost – tested whether mercury taken up by plants (does not).
 - Kate: Process for weighing in on fish and wildlife mitigation program NWPCC? Matt: Every five years evaluate. NWPCC hold public meetings/comment on Addendum through Friday. (www.northwestcouncil.og). Hope to have final Addendum in November. Changes in Addendum (to MT): Emerging priorities mitigation and blocked areas, etc. Focus is making sure project sponsors have good biological objectives, documenting process, etc. Increasing demands for fish mitigation pot of money. As managers of Fish and Wildlife Trust, generally receive mitigation funds. Sometimes NWPCC puts out an RFP for additional proposals through fish mitigation funds.
 - Columbia River System EIS proposals potentially effect Libby and Hungry Horse.
 Preferred alternative deadline on that likely February.
 - Walleye population in Swan Lake any BPA or other funds focused on that? Matt: to the
 extent that this expanding population affects priority species and areas, absolutely.
 Randy: Any indication that they are moving into Flathead? Matt: Libby staff netted
 Walleye in Upper Thompson Lake. Tomorrow's F&W Commission meeting going to put an
 emergency catch and kill policy in place (same as Swan Lake).

Myla Kelly, DEQ (Manager of Water Quality Standards Section)

Update on Flathead Lake TMDL

- Presented a year ago about water quality standards and modeling work. Wanted to give an update on where we're at and talk about some new monitoring work that DEQ has funded.
- Beneficial use may want to create new use 'unique scenic beauty.' Protective for aquatic life and human health.
- State nutrient criteria one of only states in US that have numerical standards for nitrogen and phosphorus (most wadable streams, most large rivers). None for lakes or reservoirs at this point.
- EPA has selenium guidelines, but DEQ will have set criteria specific for Lake Koocanusa. Can adopt new recommended criteria (as a state). Rich: Fish tissue vs. water quality limits for selenium.
 Myla: Yes, complicated and science is really changing on selenium. International Joint Commission (IJC) would be the one to take up selenium issue in Canada/US border.
- Compliance point and implications for discharge permits when we have gone through this
 project for Flathead Lake, we recognized the need to build a lake model to understand
 implications of criteria. Flathead Lake in particular, due to joint management with FWP and CSKT.

- 2001-2014: TMDL Phase I and II for Flathead Lake
- 2014: DEQ proposed standards to Board of Environmental Review (BER); withdrawn due to lack of sufficient public input/comment.
- More phosphorus/nitrogen in lake could benefit certain species, but goal to maintain lake at current level that it is now (2014). A-1 Use Class: Highest level of protection afforded. Many uses to consider. Secchi disk, phytoplankton, phosphorus and nutrient standards proposed.
- If standards are adopted, how will they be related to point and non-point sources? DEQ watershed loading model, needed to combine with in-lake model (specialty of FLBS). Contracted in 2017 with purpose to combine DEQ and FLBS models and ask specific questions of them.
- Questions: What would lake water quality look like with no point or non-point sources (e.g. no human sources)? What would the lake water quality look like with current point sources discharging at 120% of design capacity and current effluent quality (e.g. continued build out)? What is lake's sensitivity to changes in nitrogen/phosphorus loading (e.g. more important to control one vs the other)?
- Have extended contract a couple of times, but for a number of reasons, we aren't in a position to
 answer these questions yet. I don't think that the end result of the modeling is going to provide
 us with the answers to these questions.
- Shawn Devlin (FLBS) might be able to attend a future meeting to explain some of model complexities – model isn't providing the anticipated answers to these questions. Now in waiting period – 'static-ness.'
- Need to be able to speak to some of the valid concerns of our point dischargers. A lot of good
 work has been put into this, but the complexity of the models is such that there just isn't a good
 answer.
- Numeric nutrient criteria for lake: DEQ not seeing lake in a crisis, but curious on your perspective.
 Levels of nitrogen and phosphorus have been stable since started doing this work. Numeric
 nutrient criteria in the rest of the watershed (e.g. rivers/streams) are having a positive impact.
 Phase I TMDL with load allocation of phosphorus that we will continue to hold dischargers
 accountable to (standards).
- Discussion:
 - Rich: Are you working with CSKT? Myla: Yes, with Paula Webster. Rich: We've been great partners with you and FLBS we all want the same thing.
 - Mark: Are there any point dischargers on the lake? Tom: FLBS has a discharge permit, but we're hitting all of our targets. Permit directly with EPA since we're on the reservation.
 Myla: From non-point source perspective, sometimes it's easier to explain numeric criteria (vs. narrative). Narrative criteria could provide a benchmark – like a guideline.
 - Mark: Had a discussion with FBC about this several years ago. Many want to call the lake 'impaired' but then point sources have to reduce the amount they currently discharge vs. subject to non-degradation rule. If the scientists don't feel the lake is in crisis, then the status quo is a good place to be. Myla: Non-degradation rules are in place to protect high quality water. Instead of set numerical criteria that you cannot exceed, you look at background levels and select criteria for permitted dischargers so that the status quo is not exceeded. Value of water quality standards is vast but also value in using as benchmark for public understanding of where the waterbody is too.
 - Mark: In 2014 the Board of Environmental Review (BER) talked about the insufficient public process, was there discussion of rigor of work that had been done not being able to stand up to litigation.
 - Dean: The hard questions never got put to the point of 'we know we have a problem in the valley, and there will be impacts over time.' TMDL process to standards process – target for that was 6 months later (early 2015), but still don't really have answers. Been put on hold for the past years. Somewhat disappointing to me that this is still the case – don't have best answer so we're still not going to have discussion on where to focus

efforts – conservation, restoration, etc. Propose that we go back and do a hard look in basin at where nutrients are coming from. Reinstitute FBC monitoring committee. Redo what we did back in 1995 and update it. There has been a lot of stuff that is happened in the past 20 years. Forces discussion. Not feeling very good about where you're at given the history here. Myla: We can share research that has been done in past 20 years, regardless if standard is set or not. Craig: I saw outputs on LSPC model that were pretty dialed in regarding where nutrients are coming from.

- Tom: If what held us up before was insufficient public process, can't we just do that now? Myla: Still haven't been answer those key questions that would affect point sources/dischargers. Need to demonstrate that their input to lake could affect degradation. Randy: On a budget/timeline, not able to set out what you intended to do. How much did you spend so far and did you get any usable results? Myla: Do not have funds to continue contract. Spent over \$50k and do not have any usable data yet, but final report hasn't yet been issued.
- Whitefish Lake Institute lake monitoring data from past 20 years for close to 30 lakes will be added to national water quality portal. Supporting nutrient and eutrophication study on Lake Mary Ronan. Volunteer monitoring funds available (up to \$3k for lab costs) call for applications in early 2020. Example: Little Bitterroot Lake.

Jim Elser, Flathead Lake Biological Station (FLBS)

Flathead Lake Biological Station: Long Term Water Quality Trends

- Update on FLBS and long-term water quality trends
- Monitoring Program 1977-2018: Nitrogen 1) ammonia stable, recent decrease. 2) nitrite. 3) total nitrogen.
- Phosphorus 1) soluble reactive phosphorus, stable, close to detection limit. Hard to know because gets taken up by organisms quickly. 2) total phosphorus, slow long-term increase (until 2011?), recent decrease. Average of 5 over long term.
- Nitrogen/Phosphorus (N/P) ratio: Increasing nitrogen increasing relative to phosphorus in lake. What's causing? Does it have implications? Does it matter? Potential reasons...
- Annual mass loading (1980-2010): N coming into lake is increasing; P coming into the lake is not changing. N/P ratio coming into the lake is increasing.
- Current wastewater treatment loading more effectively removes phosphorus than nitrogen (Kalispell, Whitefish, Yellow Bay). We don't target N removal in wastewater treatment.
- People care about how clear/blue/green the lake is more than dissolved nutrients chlorophyll annual concentration levels haven't changed much (good news). Trends in water transparency:
 Lot of variability each year, but average has largely stayed the same. Lower transparency in spring, higher/deeper as summer progresses. Highest transparency since 2004 this year 17.5m measured in secchi.
- How do these trends compare to other large lakes? National Lakes Assessment statistical survey
 of lakes that meet criteria: whether lakes are getting cleaner or not. Out of 401 lakes sampled in
 US (2007 and 2012 measurements), lakes are getting more phosphorus-rich. Global increase of
 occurrence of algal blooms in large lakes (since 1980s). Getting quite serious.
- With help of Flathead Lakers, added station at Polson Bay (shallow part of lake). Will be great to be able to compare to middle and deep parts of lake.
- 'Secchi Dip-In' citizens buy a disc and report information to central repository. 28 discs sold and measured water clarity around lake. MAP of locations. Single year of measuring water transparency, citizen scientists recorded as many variations in water quality at different locations around lake as station has gotten in 45 years at one location. Can compare to other 'Secchi Dip-Ins' across nation.
- Discussion:
 - Any plans to collect nearshore data? Proliferation of septics almost need that nearshore data more than anything else. Jim: Have a periphyton monitoring program but would be

wise to have more sample sites. It's not at the scale to detect stormwater or septic (other NPS sources). Drone potential. Reports don't give us systematic data on how things are changing. Pharmaceuticals – is FLBS testing for them? Jim: Not at this time, very expensive to conduct. Did have neat micro plastics study this past summer. Fires impact lake? Jim: Yes, atmospheric deposition (Bonnie Ellis, Matt Church). What would it take for FLBS to do a nearshore study? Jim: With shallow wells to catch groundwater, etc. would be a lot of work/time. Focus on where development is densest. Is Hungry Horse big enough to influence these parameters that you measure? Tom B: About 25% of volume could be impacted. And lake hasn't frozen since selective withdrawal. That's a masters thesis. Relationship to snowpack and runoff vs. nutrient levels? Jim: Yes because phosphorus has to come from somewhere. Glaciers aren't huge part of our hydrologic load locally, but elsewhere in the world. Monitoring Review of what happened a few years ago with monitoring committee. Jack and I were asked 3ish Committee years ago to review monitoring plan done 10 before that and put together something that the Discussion FBC could look at and try to fill in the gaps, set future direction. Thinking about what we can do from monitoring aspect that might inform discussion on TMDL and nutrient loading in lake. Set up sites in headwaters to monitor - 'water quality deteriorates in the Stillwater and Whitefish Rivers and Ashley Creek.' This one study set tone for a lot of future work that was done. Synoptic nutrient study – this was done in 1994. Think about what's happened in the basin since then: wildfire, road decommissioning, road BMP improvements, Long-term sustained funding to address trend monitoring or gaps. Long-term what is needed. Discussion: Mike: If monitoring committee gets formed, take holistic approach. Maybe focus on Ashley Creek to get to multiple outcomes. Craig: Look at LSPC model output of where nutrients are coming from in the basin. I think that's what we're looking for – can be easily communicated and acted upon. ACTION: Follow up with Craig and Myla on looking at model output. Mark: Synoptic design good for specific point in time but doesn't account for variability over years. There is a lot of data from various sources. Maybe a monitoring committee could commission station to consolidate existing data and come up with design that might be useful. Going after Ashley, Haskill, Dayton Creeks more tangible things. Dean: Some value to having a set of hard numbers from 25 years ago and from present when having discussion. So much mistrust of model by a lot of the people. Motion: FBC to set up a committee to look at monitoring and nutrient inflows and potentially repeating the synoptic study (Dean S). Second (Jack P). Discussion: None. Motion passes. **Next Steps** ACTION: Doodle for next meeting date – Jan 29, Feb 5 or Feb 12 Selenium/headwaters issue gaining steam. Elected officials in MT, ID, WA, OR writing letters to BC government (re: mining/tailings). ACTION: Follow up with Erin Sexton (FLBS) and Jason G. on legal side of transboundary issues. Future meeting topic suggestions: 5th anniversary of the Headwaters TMDL – presentation from implementation team (Flathead Lakers?). Southern BC development (CanFor in Flathead, Wild Site for opposite view – debate in Canada about env review process. Follow up with Chip for contacts (Kerry Becker Smith, John Bergenske). Oil train group and Matt Jones BNSF update. <u>Project 'FreeFlow'</u> (high school science club – recreational site inventory for camping along the North Fork) or other Flathead Valley Education Projects March meeting. Edu opportunity. Follow up on TMDL modeling/standards. Aluminum facility, CFAC (Columbia Falls Superfund Site). Watershed group partners. Executive Committee to discuss.

Rich Janssen	Public Comment
 Dave Hadden (Headwaters): Thanks to everyone, especially citizen volunteers that sit commission. Oil Safe Flathead Oregon. Places like Mosier OR (explosion in community impressed with BNSF rail response preparedness to extent that it is understood. But ethere is over hundreds of gallons of oil moving through the flathead a week. Rail safety prevention that is Flathead-specific. We would like an open process to discuss how improvements might happen. Wanted to bring to your attention. Public hasn't been in the development of these plans. Would like to go to Congress for appropriation for study. Mark R: Re-raised this issue with BPA. A whole range of operational scenarios need to be aware even at the dams. Starting to get attention of disaster and efolks at BPA. 	
	 Ed: I've had this conversation with Dave several times as well – worth having the conversation. I would recommend of having this as a topic at a future meeting. Kate: Did reach out to Headwaters and BNSF to have a panel. Randy: Also Flathead Office of Emergency Services. Request copy of the plan. Tom Bansak (FLBS): Social media viral outpouring of HAB social media that went viral (alleged dog kill). Facebook claim was not substantiated in any way. Swan Lakers do a volunteer monitoring program – three years in a row of 0.0 of dissolved oxygen and yesterday was 10.0. Good news!
Wrap up	• Motion to adjourn (Steve), 2 nd (Rich). All in favor, motion passes. Adjourned at 4:39 pm.

4. Action Items				
Act	ion	Assigned	Due Date	Status
1	Send out draft minutes and updates	Kate Wilson	11/1/19	Completed
2	Next meeting date (doodle poll), location and logistics – attempt to get dates for winter, spring & summer mtgs	Kate Wilson	11/1/19	Completed
3	Circulate March CMP forum information	Kate Wilson	11/15/19	Completed
4	Follow up with Craig and Myla on looking at model Lake numeric criteria output.	Kate Wilson	12/1/19	Completed
5	Follow up with Erin Sexton (FLBS) and Jason G. on legal side of transboundary issues.	Kate Wilson	12/1/19	In-progress
	Existing Actions 1		7	
6	Consider drafting a statement of intent between Lori (UC³) and Rich (FBC) that would outline staff agreement	Executive Committee	9/15/19	To be discussed at next exec comm mtg
7	Consider formal letter to Local Gov Interim Committee depending on July 23 meeting outcomes	Executive Committee	On-going	In progress. Timeline associated with committee report & recommendations
8	Consider letter to support to increase allocation for private grants (e.g. DNRC) to support reduction of NPS pollution if needed	Kate Wilson	On-going	Discuss need for this at future meeting
9	Request more information for future meeting on sewer capacity issue	Kate Wilson	Dep. on mtg topics	
10	Follow up with USFS (Chip Weber, Craig Kendall) on fire video – promote at/from FBC			In progress

11	Draft joint UC ³ letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020 season	In progress
12	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Chip Weber	On-going	
13	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson	On-going	
14	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson		In Progress
15	Address vacancies and reappointments on FBC –BC rep (ex-officio)	Kate Wilson	On-going	Completed with exception of BC