FLATHEAD BASIN COMMISSION

Whitefish City Council Chambers
418 E Second St, Whitefish, MT

March 20th, 2019

AGENDA

11:00 AM	**Welcome & Introductions**	Rich Janssen, CSKT (Chair)
11:10 AM	**ACTION ITEM: Discussion/approval of *DRAFT* Minutes**	Kate Wilson, FBC staff
11:15 AM	**Staff update: activities/events; projects; financials/budget status; website transition; annual report, two-year work plan**	Kate Wilson
11:45 AM	**Agency, Budget and Legislative Updates**	Mark Bostrom, DNRC; FBC Executive Committee
12:15 PM	**LUNCH** (*provided*)	
1:00 PM	**Septic Leachate Study Bill Updates**	Mike Koopal, Whitefish Lake Institute; Ed Lieser, FBC Vice Chair
1:15 PM	**Incentive-based Strategies for Reducing NPS Pollution from Septic Systems in the Flathead Basin**	Samantha Tappenbeck, Soil & Water Conservation Districts of Montana
1:45 PM	**Ashley Creek Restoration Outreach & Projects**	Costanza von der Pahlen, Flathead Lakers
2:15 PM	**ACTION ITEM: Stormwater Overview, City of Kalispell stormwater management & Discussion of Projects**	Mike Koopal; Casey Lewis (City of Kalispell)
2:45 PM	**BREAK**	
3:00 PM	**Flathead Lake Biological Station Overview & Discussion of Projects**	Tom Bansak
3:30 PM	**Discussion: Upcoming agenda items; emerging issues**	All
3:55 PM	**Public comment**	Rich Janssen
4:00 PM	**Wrap up and discuss/set next meeting date & location**	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:	**March 20, 2019**	**Time:**	11:00 AM – 4:00 PM
Minutes Prepared By:	**Kate Wilson**	**Location:**	Whitefish City Council Chambers

1. Welcome and Introductions	
Dean Sirucek	Welcome. Rich opened at 11:07 AM. Overview of agenda. Tribe manages resort. Enjoy what we have to offer.
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/Upper Columbia Conservation Commission), Steve Frye (Governor-appointed member), Randy Brohdel (Flathead County Commission), Dean Sirucek (Flathead Conservation District), Mark Bostrom (DNRC Helena), Chip Weber (USFS, Flathead National Forest), Dave Stipe (Lake County Commission), Jack Potter (Governor-appointed member), Kate Wilson (DNRC/FBC & UC^3 Commission Administrator), Jon Kenning (DEQ – for Tim Davis), Brian McKeon (Glacier National Park - for Jeff Mow), Mark Rellar (BPA), Jim Williams (FWP), Jasmine Brown (Governor-appointed member), Jeff Mow (Glacier National Park)

Commissioners (by phone): Steve Frye (Governor-appointed member)
*Voting members underlined

Public/Other: Patrick Reilly (Missoulian), Bernie Azure (Char-Koosta News), Molly McMahon (Lakes Commission), Steve Rosso (Flathead Lakers), Onno Wieringa

3. Agenda and Notes, Decisions, Issues

Presenter	**Topic/Discussion**
Kate Wilson	**Discussion & approval of draft Minutes** • October 10, 2018 (Polson): Quorum and notetaker; official minutes). ○ Motion to approve as official minutes as written (Jack P). 2nd (Jasmine). All in favor. None opposed. *Motion Passes*.
Mark Bostrom	**Legislative Updates** • HB32 (initial AIS funding bill) amended and combined with HB411 after 'work session' with both House/Senate Committees. Currently includes: one-time only watercraft registration fee for residents (dep. on size), • SB363 (current funding sources passed in 2017 legislative session) cut off at end of biennium (e.g. funding was for 2 years only last session) • Randy: both bills haven't seen executive action. When we look at list of boaters/anglers – both 'causative' vs. hydro ('reactive') • HB608 mandatory decontamination of ballast boats entering state/crossing continental divide. Option for $50 fee for service. • SB257 Upper Columbia Conservation Commission (UC^3) amendments to membership. Would add voting members to each sub-basin for a geographic representation of the Upper Columbia Basin. Also would add 2 legislators (4 total) to UC^3.

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	• HB6 & 7: Renewable Resource & Reclamation grants. Watershed Management Grant appropriation – to be increased from $300k to $400k per biennium if AIS program funding goes through. Resets level of smaller grant programs to previous levels. • HB11: Treasure State Regional Water Program (Dept of Commerce). Wastewater upgrades and funding. Sill an issue of facilities not being able to meet standards and • HB14: Infrastructure bonding • HB353: Similar type bonding for state dept money to do large scale infrastructure (roads, bridges, schools, historic landmarks) • HB56: Revises VECRA program (voluntary clean-up program). Important for Conservation Districts. Groundwater clean-up example (5 years is too short). • HB324: Relates to how county water/ sewer districts can assess infrastructure costs • HB: Extension of deadline to appeal 310 permits (go through Conservation Districts). Extend from 15 to 30 days. Flathead CD does a lot of 310 permits.
Mark Bostrom Kate Wilson	**Budget Discussion** • Current Balance FY19 3/19: **$6,700**/$20,175 (operating) • $20,175 carries over if all expended – will be base for operations next biennium • Amendment in Section C of DNRC funding request – additional funds requested • Health of Natural Resource account – source of funding for FBC. At least $20k would be available in next biennium if DNRC budget passes • Operational budget up to $40k if all goes through. $40,175 • Will need to revisit next biennium because of health of Natural Resource fund. DEQ biggest consumer of account. All tied to economics of oil, coal and natural gas. • Things said in the press that DRNC gutted the budget, not true. Spend to the cash available in the NR account. MT Rural Water, DEQ and FBC all hit hard. Until we see something different in the economy of coal and oil, account will likely be in jeopardy. • Agency change package 50 – amount of utilization of personal services. NR resource operations – increase of $77,734 (personnel). Same as it was in prior years. Moved Kate to FBC role during 'snapshot.' Needed to fund position, dual role for Kate (both FBC and Upper Columbia Conservation Commission). • Recapture authority in snapshot – but not sure if recaptured cash (depends on NR account). $117k of authority – but that is not cash • F/T position paid for if all works out. Pull in another person to help with administrative tasks or staffing UC^3 could be an option. • Discussion on NR fund: Fixed rate for coal severance/NR fund sources? Or varies? Mark: Complicated formula (coal severance). Had to dial back on 310 support funds because of this discrepancy. o State special revenue is also tight because of Medicaid expansion debate o World factors affecting NR account, but has this triggered any sort of look back to a few sessions ago when legislature made 'tax holiday' for oil and gas tax. Mark: It's permanent. Bill introduced 2 days ago to revive tax and new renewable resource grant and trust (Dept. of Commerce). Mark R: Has anyone looked at impact of the decision for 'holiday.' • Media (Patrick): $77k only for Kate's position? Mark: For FBC position. Latitude to move people from positions, as long as meet legislative intent. Statutorily DNRC has to provide staff for administrative attachments – unless it says the Commission doesn't. Could pick up position in next biennium – could support Kate in dual role or go to one or the other. AIS funding bill has appropriation of $650k to DNRC to operate for UC^3 and staff, operate MISC and staff, and $278k annually for AIS grants

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	(10% allowed for admin purposes). May be able to hire ½ FTE to help with administrative tasks like AIS grants, • Media (Patrick): If funding approved, what happens if NR account falls? Mark: Would affect budget and operations. Revenue estimate, has happened before. In 2016 over $800k short and had to make difficult decisions. You budget to your appropriation, but you can only spend the cash available. • Chip: I appreciate these efforts. It's complicated and particularly keeping staff in place. You've really done what you could to make it successful.
Kate Wilson	**Staff Update work plan, financials/budget, website** • Staff update/report ○ 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 augmentation ○ Meetings/conferences: Montana Lakes Conference submission (priorities/work of FBC) & booth; Western Regional Panel meeting; Montana Water Summit; Lakes Commission meeting ○ Assisted with septic leachate summary of research, support letter, study bill proposal and language to legislators, tracking of bill ○ Legislative tracking/support (water quality, AIS, DNRC) • AIS Updates ○ UC^3 AIS Program 2018 Evaluation (online survey) ▪ Stakeholder/partner and public versions (2) ▪ Experience (direct vs indirect); watercraft inspections; monitoring; education/outreach; signs/materials/advertising (exposure/impact); rules; AIS funding sources; general feedback on program ▪ Writing up results, will send to FWP for feedback/consideration ○ Bureau of Reclamation grant to UC^3 ▪ 4 projects totaling $120k, includes BSWC member assisting with education/outreach and a marina/boat shop pilot project ○ Stats from 2018 season (108k inspections/16 fouled boats, major program expansion). UC^3 working with FWP to augment education efforts, enhance coordination in inspections/monitoring, and further protect CR Basin ○ FBC granted $5,000 for AIS Pilot in 2017 (staff just learned that this was granted but never executed by previous staff). Need to make decisions on how best to utilize. Ideas: AIS Public Service Announcements (videos), Protect our Waters stickers, reprinting of CMP AIS ID guide. Commissioners supportive of all ideas. • Website ○ Transitioning from flatheadbasincommission.org to flatheadbasincommission.mt.gov (using vendor to assist with design, layout, content and navigation). For the interim, while new site is being designed, working with contractor to remove all pages on all site and replace with a single landing page – meeting information, reports, etc. ○ Old website being shut down but new one will be stood up (www.flatheadbasincommission.mt.gov). RFP process resulted in vendor selection (Windfall, Missoula-based firm). Will be ready to launch new full website this summer.

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	○ Need bios from: Dean Sirucek, Chip Weber, Steve Frye, Tim Davis, Jason Gildea ○ Discussion: Detriment to have old website up at this point. Full of inaccurate and out of date information. ○ DNRC/FBC staff to maintain content once designed and launched with help of Windfall. ACTION: Kate to request assistance with populating and structuring site when the time comes – and have contractor come present at meeting.
Samantha Tappenbeck (Soil & Water Conservation Districts of Montana) Mike Koopal	**Update on Septic Leachate Study bill** • Once discovered that Sen. Thomas (R, Hamilton) had an existing septic study bill in the Senate, and that Rep. Noland no longer was willing to sponsor our proposed bill, FBC executive committee contacted legislators to see about potential of merging the two concepts (SJ3). Rep. Fern and Sen. Keenan assisted, and amendments were committed to be incorporated (though hadn't been posted yet). Last week vote was 36-14 on 3rd reading – not a partisan split. • Next: Hearing in House Local Government on 3/21. • ACTION: Mike to reach out to Rep Fern to see if amendments were made **Soil & Water Conservation Districts of Montana (SWCD) Septic Leachate Project** • Work focused on water quality/quantity issues. Organization is based in Helena but Samantha works out of the northwest Montana office. Applying for DEQ 319 grant to upgrade/update septic systems with an incentive-based approach. Hook into wastewater treatment facilities. Upgrades and pumping can be cost-prohibitive, which is why SWCD came up with this idea. Issue hasn't really been addressed to date, despite extensive evidence that there is a problem • Target sub-basins within the Flathead. Several waterbodies would have targeted outreach with private landowners. Important that we work with local organizations – Conservation Districts (Flathead, Lake County). Source of information that is trust with many landowners. Also reaching out to watershed groups and other local organizations. • Thank you for letter of support. Also received from Flathead Lakers, Swan Lakers, Friends of Mary Ronan, etc. Hoping to engage Lake Co and CSKT. • Ashley Creek/Spring Creek, lower Whitefish Lake Watershed, Swan River/Lake drainage, and Lake Mary Ronan watershed (HUC 10). • Feedback from DEQ: 319 program isn't a long term source of funding. Understand, but could be a pilot program. Want to see if incentive-based approach can have an impact on the ground for NPS pollution. • Also hesitant to provide funds for upgrades. Would love to see more small projects than a few big ones. Looking for opportunities to match program funds. DNRC has a cost-share assistance up to $5k or 50% of cost (whichever less) to do similar kinds of upgrades. • DNRC grant – landowners that are eligible must have violation letter from county? Mark: Renewable Resource Grant Act – private grant portion doesn't have any prerequisites that I'm aware of, but we should put our heads together on this. There are lots of other things that come out of that fund, so might be lots of competition • City of Whitefish – potential for nutrient reduction trading plan? • Pretty early in stages of idea, but moving forward. Would like to get application submitted in April (when due). Work with us on outreach if funded. • Discussion: This project could help with the septic study bill (as on the ground example). 319 grant requires a non-federal match. Samantha: Mostly in-kind

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	contributions. Mark: Could use DNRC grant as option if needed potentially. Does CSKT have a similar program? Rich: CSKT has a non-point source coordinator. • Requesting $100k from 319 grant. For this interim call, kind of a lot because $300k/$500k allocated to Bitterroot River Basin. Required match is 40% • DNRC private grants program has become increasingly popular. If that continues to move forward, DNRC will want to look at increasing. • POTENTIAL ACTION: letter to support increase in allocation for private grants to support reduction of NPS pollution…line item small grant in HB6 (next version) in the next session. Run SWCD through course to see if project gets funded, and septic study bill. • Discussion: Property tax reduction would be a great incentive. That's a pretty complicated thing to do. This topic does tend to generate a lot of discussion and ideas. Randy: That would certainly raise the attendance of county commissioners. • Tom B: Proposal is a great idea. FLBS gets a lot of calls about failing septics, they are looking for help, but nothing happens for a lot of those people. Help them do the right thing. Carrot and the stick! • Need a lot of positive outreach if this project gets funded • Cabins for lease/rent issue – came on in the past 10 years. Often don't have enough sewer capacity. They are often old lots that were seasonal and small, but now year-round with large groups renting cabins. Ran across 220 in Lake County at last count. Haven't really been regulated. That's one of the major threats to all of our lakes. • Randy: Flathead County just starting to talk about now, it's a difficult one. Steve F: Helped work on regulations for Hwy 2 (canyon) that just passed the Flathead County Commission • ACTION: Request more information for future meeting on sewer capacity issue • DEQ's perspective: not every city has capacity for taking on septic pumping • Tom B: Many areas not able to take any more – already at capacity
Constanza von der Pahlen (Flathead Lakers)	**Ashley Creek Outreach & Restoration Project** • Flathead Lakers. Hasn't presented to FBC in 10 years, so good to be back • 'River 2 Lake Initiative:' conservation and restoration through collaborative effort. Include many local, state and federal groups. Focus of R2L partners: protect and restore critical lands for water quality, wildlife, fisheries, prime farm soils, recreational opportunities along Flathead River and tributaries. Protected about 6k acres. R2L partners assist landowners with projects (conservation easements, land acquisition). Not involved in advocacy. • Sub-group 'River Steward Program' focuses on riparian planting, restoration along Flathead River. Started reaching out to Ashley Creek landowners a few years ago. FWP created a Restoration Ecologist position – increase projects success – better project maintenance, monitoring, and follow-up. • Looking to implement restoration/clean water BMPs projects to address pollution issues in Ashley Creek (focus on creek, not tributaries): Highly erodible soils, riparian areas lacking vegetation, flow issues, high nutrients loads. Smith Lake complex – TMDL currently shows wetland complex as a large source of nitrogen to the creek, but DEQ is reassessing - inputs from wetland expected to be significantly reduced and relocated to other sources (DEQ report in progress) • By planting, in particular on the south side of the creek, temperature reductions can occur. Projections from 1993 and 2011 are already higher temperature today (than projected). A lot more is needed to protect future temps in creek.

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	• Last 3 years: restoration of riparian area (1/2 mile), river steward program restoration video, riparian restoration tours, landowner meeting, survey mailed to 200 landowners on/near Creek (perceptions, awareness, behavior), small landowner workshops
	  ○ Survey (24 respondents): Care for land because 'they enjoy it' (recreation, beauty, aesthetic)
	  ○ Sediment/erosion, algae, temperature issues identified, solutions
	  ○ Very few landowners aware of conservation programs
	• Solutions: improve riparian and wetland vegetation to increase streambank stability; fence livestock away from stream or rotational grazing management plan
	• Explore future opportunities to collaborate with groups like FBC
	• Chip: Taking on really broad restoration effort. What we found with modeling is that a more focused effort could be more effective. Example – road systems: 1-2% of crossing are 90% of the problem. Cold water refugia for species like bull trout – climate change modeling showed only a handful of places by 2040, so that's what we focus on. Have you looked at more focused restoration efforts? If not, would you like to learn more about what we've learned and how we're applying it?
	• Constanza: Sediment/erosion in particular, yes, need to focus on specific areas. Considering applying for a DNRC planning grant in the future to assist with identifying what those areas might be. Definitely interested in connected and starting this conversation.
	• Chip: We all have access to different expertise – maybe a role for us with this effort is to connect the Flathead Lakers with these resources. Dean: Efforts have captured specific areas with temperature issues.
	• Fencing a start, now move onto planting (for temperature issues). Density of grasses returning to riverbank after cattle fenced out was significant.

Casey Lewis (City of Kalispell – Public Works)
 	
Mike Koopal
	Stormwater
	• This non-point source pollution issue fits well within the focus/strategic direction of the FBC – should really consider becoming more involved with mitigation efforts
	• Mike: Case study - The Bigfork Stormwater Project
	  ○ Initiated by Flathead County in 2007 at the request of local residents to evaluate urban storm water flooding/drainage issues
	  ○ The antiquated stormwater conveyance system was not functioning properly and suspected of conveying to Flathead Lake a large volume of untreated water containing pollutants and nutrients
	  ○ 2009-2014: looked at nutrients and chemical constituents/toxins. Results able to determine loading rates. Within an hour of event (rainfall, storm, street sweeping clean up), significant removal rates. Looked at manufacturers claims on devices – performance of device even better than what most manufacturers claimed.
	  ○ Study wasn't perfect, but was a good snap shot for the issue. It does tell us that this issue can be addressed if there is critical mass behind it and political support. Also that this can be a very tangible and effective means of reducing loading in the basin.
	  ○ Pre/Post project implementation loading calculations and comparison to MS4 benchmarks have determined project upgrades were beneficial to reduce stormwater pollutant loads with benefits to Bigfork Bay and Flathead Lake.

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- A repeatable methodology is in place for comparison. Further testing methodology refinement is needed. Where do we start? An inventory of stormwater infrastructure in the Flathead Basin.

- Casey: Stormwater issues for City of Kalispell. How to address all over basin? Complicated question. Need to start with evaluation of stormwater needs and issues. While I work on the issue, it's just for the city – need to address at larger level.

- Many impaired waterbodies within the basin – need to clean these up but also protect non-impaired waterbodies
- Numerous regulated small municipal separate storm sewer systems (MS4s) in MT – permitted by DEQ (Kalispell, Missoula, Great Falls, Helena, Billings). Required to create a stormwater management plan that addresses outreach, illicit discharge, construction site management, municipal operations, etc.
- Stormwater infrastructure inventory
- <u>PROPOSAL:</u> BSWC program – watershed health & protection, watershed edu & outreach, volunteer generation and capacity building. Assist in local conservation efforts. 3 goals: 1) watershed health & protection; 2) watershed education & outreach; 3) volunteer generation & capacity building
  - Could assist with inventory and map stormwater outfalls
  - Post construction stomwater controls – after project completed, how are mitigation measures working? Can filter pollutants and decrease flooding
  - Regular maintenance is required
  - City of Kalispell: Supervise BSWC member, office/phone/internet/vehicle for city only
  - FBC: funding ($12,250), travel expenses, professional development, vehicle or reimbursement outside of Kalispell city limits
  - Housing? Monthly income only $1,220
  - Deliverables: Shareable map of outfalls and stormwater controls; inspections (of both); education & outreach; green stormwater infrastructure
  - Timeframe: Applications for 2019 host sites were due Aug 17 (would apply for next year). Not posted for next cycle yet.
  - Additional potential partners: other cities, Flathead County, MT Dept. of Transportation, other applicable organizations
- If all of this work got done, future projects could include: test water quality, prioritize areas, create plan to address high priority/impact areas

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	• Discussion: Volunteer building? Casey: yes, testing. Mark: Potential for city to contribute funds? Casey: Would have to quantify amount of work to be done in the city. Jon: MS4 measures required by EPA, so would have to quantify. Scope is entire Flathead Basin? Casey: Yes. Includes a lot of public lands. That's a big job. Many of those areas of inventories that are pretty reliable. Casey: Creates a lot of collaboration – but that hasn't been done yet (e.g. not sure who is mapping and already has data). Looking just at what's coming out of a pipe? Or also non-point sources tied to stormwater (e.g. roads). ○ Mike: This is step one – inventory of what is out there. Need to prioritize areas and needs – won't be able to do it all. Start with cities and expand out from there. Dean: Miss big piece of pie if not looking at road systems. Look at major county roads and stream crossings on state highways. ○ Phase 2 source loading. Itemize out job tasks for that BSWC member ○ What are your triggers for sampling? Casey: Permit requires a 'measurable storm event' – do we have flow in curb and gutter. Mike: 0.1 collection limit on Bigfork project. 'First flush theory' – most of debris/sediment moves into water. Sampling of stormwater types should be included. ○ How does the funding work on these stormwater systems? Casey: For City of Kalispell, funding comes from residents (stormwater assessment fee/stormwater impact fee for new construction). Depends on city – others don't have this type of funding, which has led to a lot of maintenance issues (maintain, upgrade, replace). • Mark: As your financial advisor, I laid out the realities of what the commission has at its disposal in next biennium (if passes as written). Almost a two-stage aspect to this proposal – would have to get watershed management grant to cover half of the BSWC member. Timing of that is dicey because don't have new appropriation until July 1. There are resources for the FBC to move forward in a meaningful way. This seems to meet the duties and mission of the Commission ○ Jim: Sounds like a good project for us – perhaps there is a legal solution ○ Jasmine: I work in ag and I know that pesticides and pharmaceuticals are also a big issue. That's an area that EPA and state is trying to get a better handle on – would be good for FBC to put that on their radar. Consider this as a phase 2 project. ○ Kate: Could put in for grant with caveat that we are dependent on other source of funds (grant). Mark: CDs could be partner as well? CDs have a lot of influence in the ag community – majority of CD supervisors work in that arena. They have watershed management plans, this could be a good fit. • Two years ago Flathead CD half-funded a BSWC member to work on TMDL restoration plan. Suggest creating sub-committee to fine tune this project. Endorse project. Sub-Committee to explore options, costs, and tasks. August drop dead date. ○ Committee: Dean, Mike, Jasmine, Kate, Casey • Motion (Mike K): The FBC endorses a stormwater inventory of the Flathead Basin and the formation of a sub-committee to explore options and alternatives to the project. Seconded (Jeff M). All in favor. None opposed. *Motion Passes*.
Tom Bansak (Flathead Lake Biological Station)	**Flathead Lake Biological Station History/Overview/Priority Areas** • Been at the station over 20 years, coming regularly to FBC meetings over a decade • FLBS has more to say than can be said in a half hour – future meeting will have Jim Elser or Shawn Devlin provide more of a science talk with data

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	• FLBS one of oldest bio stations in nation (1899). Mission: research, monitoring, education & outreach. Mostly work in basin but have also worked on all continents in the world. Very important location here in the headwaters of the Columbia.
	• Largest natural freshwater lake (by surface area) in the western US. Tahoe deeper and have more volume :)
	• Flathead is 79th largest lake, one of the cleanest. World-renowned water quality. High quality due to:
	  o more than 69% of watershed is national park, wilderness or managed forest land; low nutrient geology (e.g. phosphorus); low human population (100k in watershed, same size as New Jersey with 8M less people!); lot of precipitation, results in rapid flushing (2.2 years. Compare to Tahoe (650 years!); all of snow/rain we get helps us keep blue water.
	• FLBS has one of the best datasets in the world (rigorous scientific protocol since 1977).
	• Protecting water impacts all of us. UM economists estimate shoreline properties $6-8 billion higher due to clean lake. Tourism/non-resident spending: 20+% of Flathead and Lake counties economy. Nature based tourism/recreation: over 9k jobs in both counties
	• Lake Champlain: water clarity declines result in decreased tourism revenue by $17M
	• AIS property values: decrease 13-19%.MISC commissioned report on mussel impacts to MT: $96-234M.
	• Two primary threats to Flathead Lake: loss of water quality/clarity; AIS
	  o Nutrient issues in 1970s news articles; mysis shrimp example
	• Flathead Monitoring Program (FMP) – all started with coal in the North Fork in the 1970s
	  o 1977 FMP initiated (lake and major tributaries); coal mining threats and nuisance algae blooms (1960s/70s) – not normal for Flathead Lake. Indicated that human factors having an impact. Modeled after Lake Tahoe's monitoring program (1968)
	  o Initial studies funded by EPA
	  o Long term site at midlake deep (15x/year): water chemistry and nutrients (5m, 0-30 m, 50m, 90m); biological community (standing crops and production for algae & zooplankton); zooplankton (0-50m)
	  o Tributaries: Flathead River @ Holt; Swan River @ Bigfork; Flathead River @ Polson. Used to do Stillwater River, Ashley Creek, Stoner Creek and South Fork (stopped due to lack of funding)
	  o Periphyton monitoring (algae that grows on rocks): two main locations – Bio Station Beach and Horseshoe Island (no resident population). Peak of growing season (Aug 1st). Periodically have done 10+ sites around lake.
	• Atmospheric deposition collection: Dry and wet (15x/year). From 1982 nitrogen increased 48%.
	• Mysis surveys since 1984: 40 sites; new moon of each fall; 4 sites monthly. Mysis now reproducing twice a year instead of once a year (2005-present data). This year's data might be showing 3 cohorts.

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	• This year adding Polson Bay water quality monitoring site – goal to make long term. Totally different conditions than midlake deep site. What happens here could be 'canary in coal mine' (e.g. could see changes here first because shallower, outflow). • Other initiatives: septic leachate studies (Flathead, McDonald, Echo); data collection and analysis for TMDLs (Flathead report completed in 1997); re-visitation of coal mining in the North Fork (chances good this will continue to be a threat); stormwater pollution studies (1990s-2000s. FBC was partner); shallow groundwater contaminant studies (PPCBs, VOCs, etc. in 2010-2012. Positive detections in 16/18 wells.) o Newer initiatives: Flathead Lake modeling for physical and biological predictions, including TMDL (2014-present); citizen science (volunteer monitoring 1993-2008, 2012-present), 'Great Secchi Dip-In' (2018-present), Swim Guide (2017-present); microplastics expert (since 2018 - Fish eat the plastics as they don't break down). o AIS: Mussels would be the real 'flathead lake monster.' eDNA testing for mussels and EWM. Have been sampling with eDNA past 5 years. ▪ Established 30 sites around Flathead Lake (3x per year) ▪ Working cooperatively with state agencies o Research funding comes from multiple sources, but monitoring is mostly philanthropic. Rely on donations and gifts from donors. Mapping efforts have generated over $40k – have mapped over 5 lakes. o We are a lake culture and people love these waterbodies – 'point positive' messaging. Keep finger on the pulse and make smart decisions. o Discussion: eDNA being done elsewhere in the state? Tom: 40+ lakes in NW, Tiber and Canyon Ferry. Challenge is limited funds and prioritizing. State uses microscopy. Have to show proof before they can jump on board. Growing acceptance of it as technology nation-wide. Surface water assessment and monitoring program established MBMG (Butte). Now state special revenue account – is it possible that UM could tap into that source? Long term monitoring critical.
Rich Janssen	**Public Comment** • Dick Solomon: Sun River Canyon cabin – Great Falls municipality (pumped out, trucked to Great Falls). Way to get rid of septic leachate (e.g. take to municipality for treatment). County – 25k permitted tanks in Flathead County (1000 or 1500 tanks). 4-6 years should be pumped. 6M gallons a year that goes into Flathead County a year. I know there's a site on the end of Pioneer Rd – duck a pit to irrigate…If there is anyone here that can help get the cities to take in waste, that would be great. I'm sure the septic guys would love to be able to come to Whitefish once a week to pump septic systems. County needs to work with cities to get that to happen. As a citizen, wanted to bring to Commission for consideration. Trying to broaden everybody's perspective. I'm doing this for the next generation. We're lucky to have the water we have. The state allows this system, but in this day and age, we should be able to do better. Try to get rid of problem. • Mike: Not septic leachate pollution, but septics – what is being applied to ground in Flathead County (6 sites). Some of the sites have alluvial geology and leaching is occurring. Maybe an issue we can address at a future.
Next Steps	• Next meeting: Kate to doodle for later in June, September.

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	• Future meeting topic suggestions: BPA mitigation in Flathead Valley/EIA on Columbia River System Operations (Hungry Horse implications. Mark, CSKT and FWP), 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 Bergansker), AIS updates (Tom Woolf). Oil train group and Matt Jones BNSF update. Project 'FreeFlow' (high school science club – recreational site inventory for camping along the North Fork – March meeting. Edu opportunity). Follow up on TMDL modeling/standards. Cynobacteria/harmful algal blooms (DEQ). Aluminum facility. Watershed group partners. Executive Committee to discuss.
Wrap up	• Motion to adjourn (Dean), 2nd (Jasmine). All in favor, *motion passes*. Adjourned at 4:00 pm.

4. Action Items				
Action		**Assigned**	**Due Date**	**Status**
1	Send out draft minutes and updates	Kate Wilson	4/18/19	Completed
2	Next meeting date (doodle poll), location and logistics – late June, late Sept	Kate Wilson & Executive Committee	4/18/19	Completed
3	Need bios from: Dean Sirucek, Chip Weber, Steve Frye, Tim Davis, Jason Gildea	Kate Wilson, FBC members	6/30/19	In progress
4	Reach out to Rep. Fern to see if study bill amendments were made/next steps	Mike Koopal	4/15/19	Completed
5	Consider letter to support to increase allocation for private grants (e.g. DNRC) to support reduction of NPS pollution if needed	Kate Wilson	6/26/19	Discuss need for this at future meeting
6	Request more information for future meeting on sewer capacity issue	Kate Wilson	Dep. on mtg topics	
7	Develop subcommittee to work on stormwater project proposal: Kate, Mike, Casey, Jasmine, Dean	Kate Wilson	5/15/19	Completed
Actions from past meetings				
8	Follow up with USFS (Chip Weber, Craig Kendall) on fire video – promote at/from FBC			In progress
9	Draft joint UC^3 letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2019 season	In progress
10	DEQ presentation to FBC when models are complete	Myla Kelly/Tim Davis	Sept 2019 meeting	In progress
11	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Chip Weber	On-going	
12	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson	On-going	
13	Invite CSKT to present on priority water issues • Wetland restoration projects • Natural Resource Department	Kate Wilson	Set for next 2 mtgs	Completed
14	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson		In Progress

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15	Invite MT/CSKT reps in Columbia River Treaty to update on process/MT position	Kate Wilson	consider for future mtg topic	Attended 3/20 town hall meeting
16	Request assistance with populating and structuring site when the time comes – Windfall to present potentially	Kate Wilson	On-going	In progress
17	Address vacancies on FBC – one citizen (gov-appointed voting member); BC rep (ex-officio)	Kate Wilson	On-going	In progress

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MEETING MINUTES

Meeting/ Project Name:	**Flathead Basin Commission**		
Date of Meeting:	**March 20, 2019**	**Time:**	11:00 AM – 4:00 PM
Minutes Prepared By:	**Kate Wilson**	**Location:**	Whitefish City Council Chambers

1. Welcome and Introductions	
Dean Sirucek	Welcome. Rich opened at 11:07 AM. Overview of agenda. Tribe manages resort. Enjoy what we have to offer.
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/Upper Columbia Conservation Commission), Steve Frye (Governor-appointed member), Randy Brohdel (Flathead County Commission), Dean Sirucek (Flathead Conservation District), Mark Bostrom (DNRC Helena), Chip Weber (USFS, Flathead National Forest), Dave Stipe (Lake County Commission), Jack Potter (Governor-appointed member), Kate Wilson (DNRC/FBC & UC^3 Commission Administrator), Jon Kenning (DEQ – for Tim Davis), Brian McKeon (Glacier National Park - for Jeff Mow), Mark Rellar (BPA), Jim Williams (FWP), Jasmine Brown (Governor-appointed member), Jeff Mow (Glacier National Park)

Commissioners (by phone): Steve Frye (Governor-appointed member)
*Voting members underlined

Public/Other: Patrick Reilly (Missoulian), Bernie Azure (Char-Koosta News), Molly McMahon (Lakes Commission), Steve Rosso (Flathead Lakers), Onno Wieringa

3. Agenda and Notes, Decisions, Issues

Presenter	**Topic/Discussion**
Kate Wilson	**Discussion & approval of draft Minutes** • October 10, 2018 (Polson): Quorum and notetaker; official minutes). ○ Motion to approve as official minutes as written (Jack P). 2nd (Jasmine). All in favor. None opposed. *Motion Passes*.
Mark Bostrom	**Legislative Updates** • HB32 (initial AIS funding bill) amended and combined with HB411 after 'work session' with both House/Senate Committees. Currently includes: one-time only watercraft registration fee for residents (dep. on size), • SB363 (current funding sources passed in 2017 legislative session) cut off at end of biennium (e.g. funding was for 2 years only last session) • Randy: both bills haven't seen executive action. When we look at list of boaters/anglers – both 'causative' vs. hydro ('reactive') • HB608 mandatory decontamination of ballast boats entering state/crossing continental divide. Option for $50 fee for service. • SB257 Upper Columbia Conservation Commission (UC^3) amendments to membership. Would add voting members to each sub-basin for a geographic representation of the Upper Columbia Basin. Also would add 2 legislators (4 total) to UC^3.

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	• HB6 & 7: Renewable Resource & Reclamation grants. Watershed Management Grant appropriation – to be increased from $300k to $400k per biennium if AIS program funding goes through. Resets level of smaller grant programs to previous levels. • HB11: Treasure State Regional Water Program (Dept of Commerce). Wastewater upgrades and funding. Sill an issue of facilities not being able to meet standards and • HB14: Infrastructure bonding • HB353: Similar type bonding for state dept money to do large scale infrastructure (roads, bridges, schools, historic landmarks) • HB56: Revises VECRA program (voluntary clean-up program). Important for Conservation Districts. Groundwater clean-up example (5 years is too short). • HB324: Relates to how county water/ sewer districts can assess infrastructure costs • HB: Extension of deadline to appeal 310 permits (go through Conservation Districts). Extend from 15 to 30 days. Flathead CD does a lot of 310 permits.
Mark Bostrom Kate Wilson	**Budget Discussion** • Current Balance FY19 3/19: **$6,700**/$20,175 (operating) • $20,175 carries over if all expended – will be base for operations next biennium • Amendment in Section C of DNRC funding request – additional funds requested • Health of Natural Resource account – source of funding for FBC. At least $20k would be available in next biennium if DNRC budget passes • Operational budget up to $40k if all goes through. $40,175 • Will need to revisit next biennium because of health of Natural Resource fund. DEQ biggest consumer of account. All tied to economics of oil, coal and natural gas. • Things said in the press that DRNC gutted the budget, not true. Spend to the cash available in the NR account. MT Rural Water, DEQ and FBC all hit hard. Until we see something different in the economy of coal and oil, account will likely be in jeopardy. • Agency change package 50 – amount of utilization of personal services. NR resource operations – increase of $77,734 (personnel). Same as it was in prior years. Moved Kate to FBC role during 'snapshot.' Needed to fund position, dual role for Kate (both FBC and Upper Columbia Conservation Commission). • Recapture authority in snapshot – but not sure if recaptured cash (depends on NR account). $117k of authority – but that is not cash • F/T position paid for if all works out. Pull in another person to help with administrative tasks or staffing UC^3 could be an option. • Discussion on NR fund: Fixed rate for coal severance/NR fund sources? Or varies? Mark: Complicated formula (coal severance). Had to dial back on 310 support funds because of this discrepancy. o State special revenue is also tight because of Medicaid expansion debate o World factors affecting NR account, but has this triggered any sort of look back to a few sessions ago when legislature made 'tax holiday' for oil and gas tax. Mark: It's permanent. Bill introduced 2 days ago to revive tax and new renewable resource grant and trust (Dept. of Commerce). Mark R: Has anyone looked at impact of the decision for 'holiday.' • Media (Patrick): $77k only for Kate's position? Mark: For FBC position. Latitude to move people from positions, as long as meet legislative intent. Statutorily DNRC has to provide staff for administrative attachments – unless it says the Commission doesn't. Could pick up position in next biennium – could support Kate in dual role or go to one or the other. AIS funding bill has appropriation of $650k to DNRC to operate for UC^3 and staff, operate MISC and staff, and $278k annually for AIS grants

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	(10% allowed for admin purposes). May be able to hire ½ FTE to help with administrative tasks like AIS grants, • Media (Patrick): If funding approved, what happens if NR account falls? Mark: Would affect budget and operations. Revenue estimate, has happened before. In 2016 over $800k short and had to make difficult decisions. You budget to your appropriation, but you can only spend the cash available. • Chip: I appreciate these efforts. It's complicated and particularly keeping staff in place. You've really done what you could to make it successful.
Kate Wilson	**Staff Update work plan, financials/budget, website** • Staff update/report ○ 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 augmentation ○ Meetings/conferences: Montana Lakes Conference submission (priorities/work of FBC) & booth; Western Regional Panel meeting; Montana Water Summit; Lakes Commission meeting ○ Assisted with septic leachate summary of research, support letter, study bill proposal and language to legislators, tracking of bill ○ Legislative tracking/support (water quality, AIS, DNRC) • AIS Updates ○ UC^3 AIS Program 2018 Evaluation (online survey) ▪ Stakeholder/partner and public versions (2) ▪ Experience (direct vs indirect); watercraft inspections; monitoring; education/outreach; signs/materials/advertising (exposure/impact); rules; AIS funding sources; general feedback on program ▪ Writing up results, will send to FWP for feedback/consideration ○ Bureau of Reclamation grant to UC^3 ▪ 4 projects totaling $120k, includes BSWC member assisting with education/outreach and a marina/boat shop pilot project ○ Stats from 2018 season (108k inspections/16 fouled boats, major program expansion). UC^3 working with FWP to augment education efforts, enhance coordination in inspections/monitoring, and further protect CR Basin ○ FBC granted $5,000 for AIS Pilot in 2017 (staff just learned that this was granted but never executed by previous staff). Need to make decisions on how best to utilize. Ideas: AIS Public Service Announcements (videos), Protect our Waters stickers, reprinting of CMP AIS ID guide. Commissioners supportive of all ideas. • Website ○ Transitioning from flatheadbasincommission.org to flatheadbasincommission.mt.gov (using vendor to assist with design, layout, content and navigation). For the interim, while new site is being designed, working with contractor to remove all pages on all site and replace with a single landing page – meeting information, reports, etc. ○ Old website being shut down but new one will be stood up (www.flatheadbasincommission.mt.gov). RFP process resulted in vendor selection (Windfall, Missoula-based firm). Will be ready to launch new full website this summer.

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	○ Need bios from: Dean Sirucek, Chip Weber, Steve Frye, Tim Davis, Jason Gildea ○ Discussion: Detriment to have old website up at this point. Full of inaccurate and out of date information. ○ DNRC/FBC staff to maintain content once designed and launched with help of Windfall. ACTION: Kate to request assistance with populating and structuring site when the time comes – and have contractor come present at meeting.
Samantha Tappenbeck (Soil & Water Conservation Districts of Montana) Mike Koopal	**Update on Septic Leachate Study bill** • Once discovered that Sen. Thomas (R, Hamilton) had an existing septic study bill in the Senate, and that Rep. Noland no longer was willing to sponsor our proposed bill, FBC executive committee contacted legislators to see about potential of merging the two concepts (SJ3). Rep. Fern and Sen. Keenan assisted, and amendments were committed to be incorporated (though hadn't been posted yet). Last week vote was 36-14 on 3rd reading – not a partisan split. • Next: Hearing in House Local Government on 3/21. • ACTION: Mike to reach out to Rep Fern to see if amendments were made **Soil & Water Conservation Districts of Montana (SWCD) Septic Leachate Project** • Work focused on water quality/quantity issues. Organization is based in Helena but Samantha works out of the northwest Montana office. Applying for DEQ 319 grant to upgrade/update septic systems with an incentive-based approach. Hook into wastewater treatment facilities. Upgrades and pumping can be cost-prohibitive, which is why SWCD came up with this idea. Issue hasn't really been addressed to date, despite extensive evidence that there is a problem • Target sub-basins within the Flathead. Several waterbodies would have targeted outreach with private landowners. Important that we work with local organizations – Conservation Districts (Flathead, Lake County). Source of information that is trust with many landowners. Also reaching out to watershed groups and other local organizations. • Thank you for letter of support. Also received from Flathead Lakers, Swan Lakers, Friends of Mary Ronan, etc. Hoping to engage Lake Co and CSKT. • Ashley Creek/Spring Creek, lower Whitefish Lake Watershed, Swan River/Lake drainage, and Lake Mary Ronan watershed (HUC 10). • Feedback from DEQ: 319 program isn't a long term source of funding. Understand, but could be a pilot program. Want to see if incentive-based approach can have an impact on the ground for NPS pollution. • Also hesitant to provide funds for upgrades. Would love to see more small projects than a few big ones. Looking for opportunities to match program funds. DNRC has a cost-share assistance up to $5k or 50% of cost (whichever less) to do similar kinds of upgrades. • DNRC grant – landowners that are eligible must have violation letter from county? Mark: Renewable Resource Grant Act – private grant portion doesn't have any prerequisites that I'm aware of, but we should put our heads together on this. There are lots of other things that come out of that fund, so might be lots of competition • City of Whitefish – potential for nutrient reduction trading plan? • Pretty early in stages of idea, but moving forward. Would like to get application submitted in April (when due). Work with us on outreach if funded. • Discussion: This project could help with the septic study bill (as on the ground example). 319 grant requires a non-federal match. Samantha: Mostly in-kind

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	contributions. Mark: Could use DNRC grant as option if needed potentially. Does CSKT have a similar program? Rich: CSKT has a non-point source coordinator. • Requesting $100k from 319 grant. For this interim call, kind of a lot because $300k/$500k allocated to Bitterroot River Basin. Required match is 40% • DNRC private grants program has become increasingly popular. If that continues to move forward, DNRC will want to look at increasing. • POTENTIAL ACTION: letter to support increase in allocation for private grants to support reduction of NPS pollution…line item small grant in HB6 (next version) in the next session. Run SWCD through course to see if project gets funded, and septic study bill. • Discussion: Property tax reduction would be a great incentive. That's a pretty complicated thing to do. This topic does tend to generate a lot of discussion and ideas. Randy: That would certainly raise the attendance of county commissioners. • Tom B: Proposal is a great idea. FLBS gets a lot of calls about failing septics, they are looking for help, but nothing happens for a lot of those people. Help them do the right thing. Carrot and the stick! • Need a lot of positive outreach if this project gets funded • Cabins for lease/rent issue – came on in the past 10 years. Often don't have enough sewer capacity. They are often old lots that were seasonal and small, but now year-round with large groups renting cabins. Ran across 220 in Lake County at last count. Haven't really been regulated. That's one of the major threats to all of our lakes. • Randy: Flathead County just starting to talk about now, it's a difficult one. Steve F: Helped work on regulations for Hwy 2 (canyon) that just passed the Flathead County Commission • ACTION: Request more information for future meeting on sewer capacity issue • DEQ's perspective: not every city has capacity for taking on septic pumping • Tom B: Many areas not able to take any more – already at capacity
Constanza von der Pahlen (Flathead Lakers)	**Ashley Creek Outreach & Restoration Project** • Flathead Lakers. Hasn't presented to FBC in 10 years, so good to be back • 'River 2 Lake Initiative:' conservation and restoration through collaborative effort. Include many local, state and federal groups. Focus of R2L partners: protect and restore critical lands for water quality, wildlife, fisheries, prime farm soils, recreational opportunities along Flathead River and tributaries. Protected about 6k acres. R2L partners assist landowners with projects (conservation easements, land acquisition). Not involved in advocacy. • Sub-group 'River Steward Program' focuses on riparian planting, restoration along Flathead River. Started reaching out to Ashley Creek landowners a few years ago. FWP created a Restoration Ecologist position – increase projects success – better project maintenance, monitoring, and follow-up. • Looking to implement restoration/clean water BMPs projects to address pollution issues in Ashley Creek (focus on creek, not tributaries): Highly erodible soils, riparian areas lacking vegetation, flow issues, high nutrients loads. Smith Lake complex – TMDL currently shows wetland complex as a large source of nitrogen to the creek, but DEQ is reassessing - inputs from wetland expected to be significantly reduced and relocated to other sources (DEQ report in progress) • By planting, in particular on the south side of the creek, temperature reductions can occur. Projections from 1993 and 2011 are already higher temperature today (than projected). A lot more is needed to protect future temps in creek.

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	• Last 3 years: restoration of riparian area (1/2 mile), river steward program restoration video, riparian restoration tours, landowner meeting, survey mailed to 200 landowners on/near Creek (perceptions, awareness, behavior), small landowner workshops
	  ○ Survey (24 respondents): Care for land because 'they enjoy it' (recreation, beauty, aesthetic)
	  ○ Sediment/erosion, algae, temperature issues identified, solutions
	  ○ Very few landowners aware of conservation programs
	• Solutions: improve riparian and wetland vegetation to increase streambank stability; fence livestock away from stream or rotational grazing management plan
	• Explore future opportunities to collaborate with groups like FBC
	• Chip: Taking on really broad restoration effort. What we found with modeling is that a more focused effort could be more effective. Example – road systems: 1-2% of crossing are 90% of the problem. Cold water refugia for species like bull trout – climate change modeling showed only a handful of places by 2040, so that's what we focus on. Have you looked at more focused restoration efforts? If not, would you like to learn more about what we've learned and how we're applying it?
	• Constanza: Sediment/erosion in particular, yes, need to focus on specific areas. Considering applying for a DNRC planning grant in the future to assist with identifying what those areas might be. Definitely interested in connected and starting this conversation.
	• Chip: We all have access to different expertise – maybe a role for us with this effort is to connect the Flathead Lakers with these resources. Dean: Efforts have captured specific areas with temperature issues.
	• Fencing a start, now move onto planting (for temperature issues). Density of grasses returning to riverbank after cattle fenced out was significant.

Casey Lewis (City of Kalispell – Public Works)
 	
Mike Koopal
	Stormwater
	• This non-point source pollution issue fits well within the focus/strategic direction of the FBC – should really consider becoming more involved with mitigation efforts
	• Mike: Case study - The Bigfork Stormwater Project
	  ○ Initiated by Flathead County in 2007 at the request of local residents to evaluate urban storm water flooding/drainage issues
	  ○ The antiquated stormwater conveyance system was not functioning properly and suspected of conveying to Flathead Lake a large volume of untreated water containing pollutants and nutrients
	  ○ 2009-2014: looked at nutrients and chemical constituents/toxins. Results able to determine loading rates. Within an hour of event (rainfall, storm, street sweeping clean up), significant removal rates. Looked at manufacturers claims on devices – performance of device even better than what most manufacturers claimed.
	  ○ Study wasn't perfect, but was a good snap shot for the issue. It does tell us that this issue can be addressed if there is critical mass behind it and political support. Also that this can be a very tangible and effective means of reducing loading in the basin.
	  ○ Pre/Post project implementation loading calculations and comparison to MS4 benchmarks have determined project upgrades were beneficial to reduce stormwater pollutant loads with benefits to Bigfork Bay and Flathead Lake.

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- A repeatable methodology is in place for comparison. Further testing methodology refinement is needed. Where do we start? An inventory of stormwater infrastructure in the Flathead Basin.

- Casey: Stormwater issues for City of Kalispell. How to address all over basin? Complicated question. Need to start with evaluation of stormwater needs and issues. While I work on the issue, it's just for the city – need to address at larger level.

- Many impaired waterbodies within the basin – need to clean these up but also protect non-impaired waterbodies
- Numerous regulated small municipal separate storm sewer systems (MS4s) in MT – permitted by DEQ (Kalispell, Missoula, Great Falls, Helena, Billings). Required to create a stormwater management plan that addresses outreach, illicit discharge, construction site management, municipal operations, etc.
- Stormwater infrastructure inventory
- <u>PROPOSAL:</u> BSWC program – watershed health & protection, watershed edu & outreach, volunteer generation and capacity building. Assist in local conservation efforts. 3 goals: 1) watershed health & protection; 2) watershed education & outreach; 3) volunteer generation & capacity building
  - Could assist with inventory and map stormwater outfalls
  - Post construction stomwater controls – after project completed, how are mitigation measures working? Can filter pollutants and decrease flooding
  - Regular maintenance is required
  - City of Kalispell: Supervise BSWC member, office/phone/internet/vehicle for city only
  - FBC: funding ($12,250), travel expenses, professional development, vehicle or reimbursement outside of Kalispell city limits
  - Housing? Monthly income only $1,220
  - Deliverables: Shareable map of outfalls and stormwater controls; inspections (of both); education & outreach; green stormwater infrastructure
  - Timeframe: Applications for 2019 host sites were due Aug 17 (would apply for next year). Not posted for next cycle yet.
  - Additional potential partners: other cities, Flathead County, MT Dept. of Transportation, other applicable organizations
- If all of this work got done, future projects could include: test water quality, prioritize areas, create plan to address high priority/impact areas

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	• Discussion: Volunteer building? Casey: yes, testing. Mark: Potential for city to contribute funds? Casey: Would have to quantify amount of work to be done in the city. Jon: MS4 measures required by EPA, so would have to quantify. Scope is entire Flathead Basin? Casey: Yes. Includes a lot of public lands. That's a big job. Many of those areas of inventories that are pretty reliable. Casey: Creates a lot of collaboration – but that hasn't been done yet (e.g. not sure who is mapping and already has data). Looking just at what's coming out of a pipe? Or also non-point sources tied to stormwater (e.g. roads). ○ Mike: This is step one – inventory of what is out there. Need to prioritize areas and needs – won't be able to do it all. Start with cities and expand out from there. Dean: Miss big piece of pie if not looking at road systems. Look at major county roads and stream crossings on state highways. ○ Phase 2 source loading. Itemize out job tasks for that BSWC member ○ What are your triggers for sampling? Casey: Permit requires a 'measurable storm event' – do we have flow in curb and gutter. Mike: 0.1 collection limit on Bigfork project. 'First flush theory' – most of debris/sediment moves into water. Sampling of stormwater types should be included. ○ How does the funding work on these stormwater systems? Casey: For City of Kalispell, funding comes from residents (stormwater assessment fee/stormwater impact fee for new construction). Depends on city – others don't have this type of funding, which has led to a lot of maintenance issues (maintain, upgrade, replace). • Mark: As your financial advisor, I laid out the realities of what the commission has at its disposal in next biennium (if passes as written). Almost a two-stage aspect to this proposal – would have to get watershed management grant to cover half of the BSWC member. Timing of that is dicey because don't have new appropriation until July 1. There are resources for the FBC to move forward in a meaningful way. This seems to meet the duties and mission of the Commission ○ Jim: Sounds like a good project for us – perhaps there is a legal solution ○ Jasmine: I work in ag and I know that pesticides and pharmaceuticals are also a big issue. That's an area that EPA and state is trying to get a better handle on – would be good for FBC to put that on their radar. Consider this as a phase 2 project. ○ Kate: Could put in for grant with caveat that we are dependent on other source of funds (grant). Mark: CDs could be partner as well? CDs have a lot of influence in the ag community – majority of CD supervisors work in that arena. They have watershed management plans, this could be a good fit. • Two years ago Flathead CD half-funded a BSWC member to work on TMDL restoration plan. Suggest creating sub-committee to fine tune this project. Endorse project. Sub-Committee to explore options, costs, and tasks. August drop dead date. ○ Committee: Dean, Mike, Jasmine, Kate, Casey • Motion (Mike K): The FBC endorses a stormwater inventory of the Flathead Basin and the formation of a sub-committee to explore options and alternatives to the project. Seconded (Jeff M). All in favor. None opposed. *Motion Passes*.
Tom Bansak (Flathead Lake Biological Station)	**Flathead Lake Biological Station History/Overview/Priority Areas** • Been at the station over 20 years, coming regularly to FBC meetings over a decade • FLBS has more to say than can be said in a half hour – future meeting will have Jim Elser or Shawn Devlin provide more of a science talk with data

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	• FLBS one of oldest bio stations in nation (1899). Mission: research, monitoring, education & outreach. Mostly work in basin but have also worked on all continents in the world. Very important location here in the headwaters of the Columbia.
	• Largest natural freshwater lake (by surface area) in the western US. Tahoe deeper and have more volume :)
	• Flathead is 79th largest lake, one of the cleanest. World-renowned water quality. High quality due to:
	  o more than 69% of watershed is national park, wilderness or managed forest land; low nutrient geology (e.g. phosphorus); low human population (100k in watershed, same size as New Jersey with 8M less people!); lot of precipitation, results in rapid flushing (2.2 years. Compare to Tahoe (650 years!); all of snow/rain we get helps us keep blue water.
	• FLBS has one of the best datasets in the world (rigorous scientific protocol since 1977).
	• Protecting water impacts all of us. UM economists estimate shoreline properties $6-8 billion higher due to clean lake. Tourism/non-resident spending: 20+% of Flathead and Lake counties economy. Nature based tourism/recreation: over 9k jobs in both counties
	• Lake Champlain: water clarity declines result in decreased tourism revenue by $17M
	• AIS property values: decrease 13-19%.MISC commissioned report on mussel impacts to MT: $96-234M.
	• Two primary threats to Flathead Lake: loss of water quality/clarity; AIS
	  o Nutrient issues in 1970s news articles; mysis shrimp example
	• Flathead Monitoring Program (FMP) – all started with coal in the North Fork in the 1970s
	  o 1977 FMP initiated (lake and major tributaries); coal mining threats and nuisance algae blooms (1960s/70s) – not normal for Flathead Lake. Indicated that human factors having an impact. Modeled after Lake Tahoe's monitoring program (1968)
	  o Initial studies funded by EPA
	  o Long term site at midlake deep (15x/year): water chemistry and nutrients (5m, 0-30 m, 50m, 90m); biological community (standing crops and production for algae & zooplankton); zooplankton (0-50m)
	  o Tributaries: Flathead River @ Holt; Swan River @ Bigfork; Flathead River @ Polson. Used to do Stillwater River, Ashley Creek, Stoner Creek and South Fork (stopped due to lack of funding)
	  o Periphyton monitoring (algae that grows on rocks): two main locations – Bio Station Beach and Horseshoe Island (no resident population). Peak of growing season (Aug 1st). Periodically have done 10+ sites around lake.
	• Atmospheric deposition collection: Dry and wet (15x/year). From 1982 nitrogen increased 48%.
	• Mysis surveys since 1984: 40 sites; new moon of each fall; 4 sites monthly. Mysis now reproducing twice a year instead of once a year (2005-present data). This year's data might be showing 3 cohorts.

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	• This year adding Polson Bay water quality monitoring site – goal to make long term. Totally different conditions than midlake deep site. What happens here could be 'canary in coal mine' (e.g. could see changes here first because shallower, outflow). • Other initiatives: septic leachate studies (Flathead, McDonald, Echo); data collection and analysis for TMDLs (Flathead report completed in 1997); re-visitation of coal mining in the North Fork (chances good this will continue to be a threat); stormwater pollution studies (1990s-2000s. FBC was partner); shallow groundwater contaminant studies (PPCBs, VOCs, etc. in 2010-2012. Positive detections in 16/18 wells.) o Newer initiatives: Flathead Lake modeling for physical and biological predictions, including TMDL (2014-present); citizen science (volunteer monitoring 1993-2008, 2012-present), 'Great Secchi Dip-In' (2018-present), Swim Guide (2017-present); microplastics expert (since 2018 - Fish eat the plastics as they don't break down). o AIS: Mussels would be the real 'flathead lake monster.' eDNA testing for mussels and EWM. Have been sampling with eDNA past 5 years. ▪ Established 30 sites around Flathead Lake (3x per year) ▪ Working cooperatively with state agencies o Research funding comes from multiple sources, but monitoring is mostly philanthropic. Rely on donations and gifts from donors. Mapping efforts have generated over $40k – have mapped over 5 lakes. o We are a lake culture and people love these waterbodies – 'point positive' messaging. Keep finger on the pulse and make smart decisions. o Discussion: eDNA being done elsewhere in the state? Tom: 40+ lakes in NW, Tiber and Canyon Ferry. Challenge is limited funds and prioritizing. State uses microscopy. Have to show proof before they can jump on board. Growing acceptance of it as technology nation-wide. Surface water assessment and monitoring program established MBMG (Butte). Now state special revenue account – is it possible that UM could tap into that source? Long term monitoring critical.
Rich Janssen	**Public Comment** • Dick Solomon: Sun River Canyon cabin – Great Falls municipality (pumped out, trucked to Great Falls). Way to get rid of septic leachate (e.g. take to municipality for treatment). County – 25k permitted tanks in Flathead County (1000 or 1500 tanks). 4-6 years should be pumped. 6M gallons a year that goes into Flathead County a year. I know there's a site on the end of Pioneer Rd – duck a pit to irrigate…If there is anyone here that can help get the cities to take in waste, that would be great. I'm sure the septic guys would love to be able to come to Whitefish once a week to pump septic systems. County needs to work with cities to get that to happen. As a citizen, wanted to bring to Commission for consideration. Trying to broaden everybody's perspective. I'm doing this for the next generation. We're lucky to have the water we have. The state allows this system, but in this day and age, we should be able to do better. Try to get rid of problem. • Mike: Not septic leachate pollution, but septics – what is being applied to ground in Flathead County (6 sites). Some of the sites have alluvial geology and leaching is occurring. Maybe an issue we can address at a future.
Next Steps	• Next meeting: Kate to doodle for later in June, September.

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	• Future meeting topic suggestions: BPA mitigation in Flathead Valley/EIA on Columbia River System Operations (Hungry Horse implications. Mark, CSKT and FWP), 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 Bergansker), AIS updates (Tom Woolf). Oil train group and Matt Jones BNSF update. Project 'FreeFlow' (high school science club – recreational site inventory for camping along the North Fork – March meeting. Edu opportunity). Follow up on TMDL modeling/standards. Cynobacteria/harmful algal blooms (DEQ). Aluminum facility. Watershed group partners. Executive Committee to discuss.
Wrap up	• Motion to adjourn (Dean), 2nd (Jasmine). All in favor, *motion passes*. Adjourned at 4:00 pm.

4. Action Items				
Action		**Assigned**	**Due Date**	**Status**
1	Send out draft minutes and updates	Kate Wilson	4/18/19	Completed
2	Next meeting date (doodle poll), location and logistics – late June, late Sept	Kate Wilson & Executive Committee	4/18/19	Completed
3	Need bios from: Dean Sirucek, Chip Weber, Steve Frye, Tim Davis, Jason Gildea	Kate Wilson, FBC members	6/30/19	In progress
4	Reach out to Rep. Fern to see if study bill amendments were made/next steps	Mike Koopal	4/15/19	Completed
5	Consider letter to support to increase allocation for private grants (e.g. DNRC) to support reduction of NPS pollution if needed	Kate Wilson	6/26/19	Discuss need for this at future meeting
6	Request more information for future meeting on sewer capacity issue	Kate Wilson	Dep. on mtg topics	
7	Develop subcommittee to work on stormwater project proposal: Kate, Mike, Casey, Jasmine, Dean	Kate Wilson	5/15/19	Completed
Actions from past meetings				
8	Follow up with USFS (Chip Weber, Craig Kendall) on fire video – promote at/from FBC			In progress
9	Draft joint UC^3 letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2019 season	In progress
10	DEQ presentation to FBC when models are complete	Myla Kelly/Tim Davis	Sept 2019 meeting	In progress
11	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Chip Weber	On-going	
12	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson	On-going	
13	Invite CSKT to present on priority water issues • Wetland restoration projects • Natural Resource Department	Kate Wilson	Set for next 2 mtgs	Completed
14	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson		In Progress

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15	Invite MT/CSKT reps in Columbia River Treaty to update on process/MT position	Kate Wilson	consider for future mtg topic	Attended 3/20 town hall meeting
16	Request assistance with populating and structuring site when the time comes – Windfall to present potentially	Kate Wilson	On-going	In progress
17	Address vacancies on FBC – one citizen (gov-appointed voting member); BC rep (ex-officio)	Kate Wilson	On-going	In progress

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FLATHEAD BASIN COMMISSION

CSKT Tribal Complex (42483 5th Ave E. Pablo, MT)
June 26, 2019

AGENDA

10:30 AM	**Welcome & Introductions**	Rich Janssen, CSKT (Chair)
10:40 AM	**Discussion/approval of March 20th *DRAFT* Minutes**	Kate Wilson, FBC staff
10:50 AM	**Staff update: activities/events; projects; financials/budget/grants status; annual report**	Kate Wilson
11:15 AM	**Agency, Budget and Legislative Updates**	Mark Bostrom, DNRC
11:30 AM	**Septic Leachate Updates/Path Forward**	Mike Koopal, Whitefish Lake Institute; Rich Janssen
11:45 AM	**Communication Networks of Five Columbia River Basins Research Overview**	Karen Trebitz, University of Idaho Doctorate Student
12:00 PM	**LUNCH** (*provided*)	
12:45 PM	**ACTION ITEM: Non-Point Source Pollution: Addressing Storm Water Runoff in the Flathead Basin**	Casey Lewis, City of Kalispell; Mike Koopal
1:15 PM	**CSKT Natural Resources Department Overview**	Rich Janssen
1:45 PM	**Aquatic Invasive Species Program Update**	Russ Hartzell, FWP
2:15 PM	**BREAK**	
2:35 PM	**Harmful Algal Blooms**	Hannah Riedl, DEQ
3:05 PM	**Discussion: Upcoming agenda items; emerging issues**	All
3:20 PM	**Public comment**	Rich Janssen
3:30 PM	**Wrap up**	Rich Janssen; Kate Wilson

Next Meeting: September 26, Location TBD

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:	**June 26, 2019**	**Time:**	10:30 AM – 3:30 PM
Minutes Prepared By:	**Kate Wilson**	**Location:**	CSKT Tribal Council Chambers (Pablo, MT)

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/Upper Columbia Conservation Commission), 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), Kate Wilson (DNRC/FBC & UC^3 Commission Administrator)
*Voting members underlined

Public/Other: Bernie Azure (Char-Koosta News), Dennis Clairmont (CSKT), Casey Lewis (City of Kalispell), Lamont Kinkaid (Association of Realtors, Water Subcommittee), Steve Rosso (Flathead Lakers), Onno Wieringa, Sarah Ganter (Upper Columbia Conservation Commission Big Sky Watershed Corps), Connlan Whyte (Flathead Lake Biological Station), Paula Webster (CSKT), Karen Trebitz (University of Idaho)

3. Agenda and Notes, Decisions, Issues

Presenter	**Topic/Discussion**

Kate Wilson, DNRC	**Discussion & approval of draft Minutes**
	• March 20, 2018 (Whitefish): Quorum and notetaker; official minutes).
	  ○ Amendment: Kathy Olsen not present at meeting (remove)
	  ○ Motion to approve as official minutes as amended (Dean S). 2nd (Dave S). All in favor. None opposed. *Motion Passes*.

Kate Wilson	**Staff Update work plan, website**
	• Staff update/report
	  ○ 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 augmentation
	  ○ Meetings/conferences: Western Regional Panel (Tacoma, WA); Lakes Commission (Sandpoint, ID); Upper Columbia Conservation Commission, NRCS Kalispell partner meeting (Kathy); TECK selenium dinner (Mike/Rich)
	  ○ Septic leachate
	  ○ Legislative tracking/support (water quality, AIS, DNRC)
	• Website
	  ○ Transitioning from flatheadbasincommission.org to flatheadbasincommission.mt.gov (using vendor to assist with design, layout, content and navigation). For the interim, while

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new site is being designed, working with contractor to remove all pages on all site and replace with a single landing page – meeting information, reports, etc.
  - Project delayed due to complications with other website (invasivespecies.mt.gov) which is a higher priority to launch
  - Old website being shut down but new one will be stood up (www.flatheadbasincommission.mt.gov). RFP process resulted in vendor selection (Windfall, Missoula-based firm). Will be ready to launch new full website this summer.
  - 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. ACTION: Kate to request assistance with populating and structuring site when the time comes – and have contractor come present at meeting.

Mark Bostrom, DNRC

Kate Wilson

Agency, Budget and Legislative Updates

- Current Balance FY19 3/19: **$3,966**/$20,175 (operating)
  - Approved budget (October 2018 meeting): $10,000
    - Member travel/Meetings $1,212/$4,200
    - Website $3,229/$4,500
    - Display/materials $1,000
    - 2017-2018 annual report $753/$300
    - MT Lakes Conference sponsorship $1,000/$1,000
- In order to zero out by June 30, consider putting balance (less meeting expenses from today) into personnel
- Motion: Use balance of remaining FY19 funds to pay for staff time (Jim S). 2nd (Jack) All in favor. None opposed. *Motion Passes*.
- FY20 Budget: $20,175 carried over, $20,000 in addition as a result from requesting amendment agency funding bill – $40,175 base for operations. Additional $77,000 secured for personnel.
- Suggested allocation of FY20 operating 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
$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	

- Update: DNRC AIS Grant $900/$5,000
  - AIS guides (missed deadline, incomplete)
  - Launch AIS PSAs ($3,100, completed)
  - Protect Our Waters Stickers ($1,900, in progress)
- Other opportunities

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- Watershed Planning Grant: BSWC Member?

Personnel Discussion:

- Kate in dual role with UC^3 and FBC.
- Modified position requested from Gov's Office (by DNRC). Could have some admin support/assistant to do. Kate could focus on higher level work.
- Mark: Are you comfortable with split of Kate in two Commissions? Same conversation happens in both. Could split a variety of ways. Has been a long-standing issue with FBC – level of personnel services has been ongoing. Permanent position back but need for assistance (both Commissions)
- Could structure so that 50% of each Commission for Kate as Commission Administrator and the other 50% for admin/programmatic support
- Discussion:
  - Mark R: Cross pollination of both Commissions. Keep her in place. Jack P: Task Exec Comm to discuss with UC^3 (split/amounts). Who would do the hiring, etc.? Come up with monetary formula. Mike and Dennis on UC^3. Could you speak to arrangement? Mike K: Advocate that we accept proposal of some sort so that UC^3 can vote on next time. Could have Exec Comm decide. Can build in an annual review. Dave S: Helps if one group has motion in place already. Kate would supervise position. Consider drafting a statement of intent between Lori (UC^3) and Rich (FBC) that would outline agreement.
- Motion: Split support/administrative position 50/50 with UC^3 with an annual review required (Mike K). 2nd (Dave S.) All in favor. None opposed. *Motion Passes*.
- Kate to draft position description and run by executive committee.

Legislative Updates:

- *SB257*: UC^3 recruiting for new members to represent other geographic areas of the Upper Columbia Basin. Currently all voting members (besides FWP staff) reside in the Flathead Basin. Seeking a representative from: The Upper/Middle Clark Fork River basin; the Bitterroot River Basin; the Swan/Blackfoot River Basins; the Kootenai River Basin; and the Lower Clark Fork River Basin. Four new legislators have been appointed to serve in an ex-officio manner as well (2 from the House/2 from Senate representing both parties).
- *HB 6 and 7 Infrastructure Bill*: RRGL grants, conservation district projects (water and sewer). Done through bonding in *HB652*.
- *HB56*: Revise and clarify voluntary clean-up laws and extend groundwater cleanup time.
- *HB324*: New areas opt in to districts. Might be important in context of septic systems. Extension to deadline to appeal 310 permits (30 days)
- *Good Neighbor Authority*: Allows state/local entities to manage forests on federal lands. Gained a lot of traction during the session as well. It was a big win for the agency – passed almost unanimously.
- *Conservation Districts* (CDs): Did well in the session. Previous session came out $400k short but made up for that plus about $1M this session. Re-engage the 310 reimbursement fund. And additional money for the 223 grants. For the end of the session had discussions with Directors at FWP and DNRC + Gov's Office regarding AIS trust fund ($100M). Took some of spending authority to contract with McCone CD to run inspection stations and augment them, particularly in the east. Really key now that North and South Dakotas have infested lakes. One time only funding, could be for this year and into next.
- *HB411*: Aquatic invasive species program funding for state of Montana. Includes non-resident motorized ($30) and non-motorized ($10) annual fee; angler prevention pass ($2 resident/$7.50 non-resident); hydropower fees; bed tax; and general fund. Estimated to raise $5.3M annually. DNRC receives $650k out of these funds for the AIS grant program, the Montana Invasive Species

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	Council, the UC[3] and program staff.
Mike Koopal, WLI	**Septic Leachate Updates/Path Forward** • Background/legislative session update ○ Realized that Sen. Thomas has a septic study bill already (SJ3) so worked to get FBC language added to existing bill. Ultimately this was not successful – Rep. Noland originally committed to assisting but did not advocate for changes in language when committee voted on bill. • Local Government Interim Committee charged with completed study bill. They meet July 23 in Helena (Ed and Mike attending). Hopeful that committee will take on additional job duties in study bill – provide more actionable results. Ed has been working the angles a bit – Rep Dave Fern and chair of the committee are receptive to including FBC proposed language. • WHEREAS language added since FBC approved initial study bill concept. • Discussion: Mark B: SJ3 appears to be recommended changes to DEQ's standards. Targeting DEQ standards (circular 4), non-point source, TMDLs. Not going to a more stringent technology – looking like a way around currently approved system. Steve F: Any ideas on how/where we could more effectively present our case? Mark B: Thomas just said he didn't want the amendments and it was approved that way. Water policy interim committee probably the right place for this to have gone, but now given to Local Government committee. Maybe counties could take on? Probably why local government was chosen. MACO will be there for sure. What about CDs? Water and sewer districts will be there. Dean S: As far as current criteria are concerned – evaluate current state of systems. Historical septic systems in subdivisions that were permitted in the 60s-70s. If all this group looks at is current regulations, they don't get a picture of what it was like before. Steve F: Many systems not permitted at all. Look at history as concern. Kate W: Do you want to be a formal septic leachate committee? Hold off on formal committee until July committee meeting. Mark B: Anything that would come from Committee would have to work through DEQ to change circular 4 process. Would seem that it would be important to have DEQ at the table. Could make suggestion. ACTION: Consider writing letter to committee and/or partners.

Karen Trebitz, University of Idaho Doctorate Student	**Communication Networks of Five Columbia River Basins Research Project**
	• 'Network weaving' to solve difficult natural resource issues
	• Objective: examine communication network structures in 5 Columbia River basins. Social Network Analysis. Nexus between legislature (laws) and on the ground work.
	• Survey – wide view because must apply to five lake basins across Columbia River. Libby Dam: enough concrete to build a hwy from here to DC. Lake Chelan, Lake Roosevelt, Lake Koocanusa, Flathead Lake. LPO is 28th deepest lake in US. At least one tribe in each basin – usually two. Lake Chelan is the only basin that still has a salmon run. Dams owned by private and public entities.
	• Management concepts influencing interactions:
	  1) Different management systems: command and control, CERCLA, ESA, FERC, CRT, BPA mitigation, etc.
	  2) Collaborative management
	  3) Adaptive co-management – sustainability, resilience
	• Competing needs for water resources. Fisheries and water quality focus of study.
	• Would need to partner with a tribe to look at cultural use/values
	• Study: Lake health indicators, networks, qualitative responses (likert scale), social and core-periphery networks (structures)
	• Lake Koocanusa – might have to model as two lakes due to international status (lack of communication across the line)

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	• Why does it matter? Has application on management level. Depending on player, could improve participation. NGOs – how/where to engage? Feds – how best to engage public in decision making and deliberation? More and more encouragement of public/private partnerships happening. Also helps fill gaps in individual basins and regional areas. • 1-2 hours of outreach required per survey. FBC and Flathead Lakers have filled out survey already.
Casey Lewis, City of Kalispell – Public Works Mike Koopal	**Stormwater** • This non-point source pollution issue fits well within the focus/strategic direction of the FBC – should really consider becoming more involved with mitigation efforts • Stormwater issues for City of Kalispell. How to address all over basin? Complicated question. Need to start with evaluation of stormwater needs and issues. While I work on the issue, it's just for the city – need to address at larger level. • Many impaired waterbodies within the basin – need to clean these up but also protect non-impaired waterbodies • Numerous regulated small municipal separate storm sewer systems (MS4s) in MT – permitted by DEQ (Kalispell, Missoula, Great Falls, Helena, Billings). Required to create a stormwater management plan that addresses outreach, illicit discharge, construction site management, municipal operations, etc. Kalispell only MS4 in Flathead Basin. • Stormwater mitigation: flood reduction, reducing pollutants. Many mitigation measures require maintenance. • Infrastructure inventory needed. FBC Subcommittee meeting since last FBC meeting. Discussed and updated proposal. • <u>Updated project proposal</u> – multi-year project. Create inventory for basin, identify stormwater needs and issues in the basin. Year 1: prioritize metropolitan areas within basin. Expand to other valley areas if time/funding allows. 1. Desktop analyses: compile data out there already 2. Develop GIS stormwater layer for FB 3. Pilot dry-weather inspection of outfalls (state in Kalispell) 4. Education & outreach: support Flathead Rain Garden Initiative (new! In development currently) 5. Prioritization and report • City of Kalispell commit to: Supervise/host BSWC member; provide office, computer, telephone and internet, and vehicle for work within Kalispell • Flathead Conservation District commit to: Assist with vehicle and/or funding for mileage; co-sponsor for project/study • Flathead Basin Commission commit to: Provide $12,250 BSWC member (plus travel, professional development); assist with vehicle and/or funding for mileage, co-sponsor for project/study • Must also consider: affordable housing in the Kalispell area • Discussion: How do big landowners/operations get regulated? Depends where you are. Hutton Ranch example. Casey L: Moving into new process where city will permit. Dean: When subdivision is proposed, must go through DEQ's review. Perennial and intermittent streams aren't really identified. Dean: FBC was the lead on a DNRC grant to develop an inventory of sewer treatment facilities in the basin. Flathead County could assist with GIS. Scope of study? Do we want to incorporate Lake County in this as well? Whole basin or limit to specific areas? Steve F: Proof of concept approach? Kasey: BSWC member only 9 months, so want a realistic timeframe and scope given that program. Dave S: City of Polson has major issues with their systems. Karen: Is that a legislative issue? Dave: Legislature here is focused on city and county management of services/resources.

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	➢ Mike K: This brings a framework to the FBC, but still needs to be scoped once project gets moving. I don't think we know the result/product yet, but I think this is a good vehicle to do this. ➢ Mark B: MCC just got rejected on the national application for the Big Sky Watershed Corps because they couldn't demonstrate that the BSWC members were meeting all the three tenets of AmeriCorps – community, volunteer generation, education & outreach. How is application going to be viewed given that the three tenets need to be met individually? Need to strengthen all those elements. Tammy Swinney City of Bozeman – similar project (stormwater with BSWC). Follow up to discuss lessons learned. ➢ Mark: DNRC planning grant has funds that can be used for BSWC or could be used to fund staff of another kind (e.g. part time, intern, etc.). Contractor would probably be way more expensive than BSWC member. Development of a broader strategy. Hannah: DEQ volunteer monitoring grants. 319 options as well. ➢ Timeframe: Sept 13 for BSWC applications (due date). ACTION: Casey and Kate to work on application together. • Potential partners: other cities, Flathead County, MDT, others • Motion (Dean S): The FBC goes forward to tentatively provide funding for Big Sky Watershed Corps to develop a stormwater inventory in the Upper Flathead Basin; Kate is advised to continue to seek additional funding for project. Seconded (Jack P). All in favor. None opposed. *Motion Passes*.
Rich Janssen, CSKT	**CSKT Natural Resources Department Overview** • NR Department employs 222/1200 CSKT employees, 100/222 live on reservation • Divisions: Environmental Protection (air quality, Brownfield, solid waste, non-point source pollution, pesticides, shoreline protection, water quality, wetlands conservation, and underground storage tanks programs); Fish, Wildlife, Recreation & Conservation (AIS, fisheries, conservation, wildland recreation, information & education, wildlife programs); Engineering & Water Resources (GIS, roads, safety of dams, water management and dam monitoring programs) • Major changes in land use/development since reservation established in 1855 • Class I Airshed (same as Glacier) • 150 shoreline permits/$174k in dock fees and permits • Fisheries: No hatcheries here, though CSKT requests some stocking for alpine mountain lakes. MAC days, aggressive lake trout removal efforts • Hunting/fishing permits required on reservation • Water Compact: Need all three Montana congressional representatives to support water compact to move forward in congress. • Reservation population: 30,000. 1 million acres in reservation/Lake County • See video link ('In the Spirit of Atatice'): https://youtu.be/m0i8iw-2MSQ
Tom Woolf, FWP	**Aquatic Invasive Species Program Updates** • Montana AIS Program funding allocation (HB411): $4.6M FWP; $650k DNRC • Non-resident boating fees will likely come into effect next season; still working on how it will be implemented • Ballast boats: mandatory decontamination for all boats destined for MT waters that are: entering the state or crossing the Continental Divide (to the west). Previously this only applied to ballast boats that had been in infested waters/states. It will be more work/time for inspectors to decontaminate these boats on site. Sometimes it cannot be completed, and the boat must be locked to the trailer for follow up. • Considering system where private vendors could assist with decontaminations potentially.

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	• Changes to program in 2019: Improve efficiency/efficacy; move stations to address risk as needed; expand partner participation in inspections, monitoring and outreach; updated data systems (e.g. electronic data tablets at stations); FWP lead for aquatic plant issues – taking over Beaver Lake Eurasian watermilfoil project. • Flathead Basin 'Inspection Before Launch' rule: Must be renewed. FWP currently has this out for public comment (closes July 2019) • AIS rules in Montana are quite complicated. Can always use more help getting the word out on Clean Drain Dry campaign and clarifying rules. • Current stats: 26,000 inspections; 30 inspection stations; 11 fouled boats; 200 employees/partner staff • Treat all fouled boats as if the zebra/quagga mussels are live specimens (difficult to determine on the spot of they are dead or alive) • Monitoring: State uses plankton tows as primary monitoring tool. Open to other methods at specific locations, such as at Tiber there is an eDNA project with University of Montana (track hits to see if they can find source). Western states have had difficulty incorporating eDNA into monitoring programs due to detections of larvae (veligers) that have never led to adult populations or verification by plankton tows (e.g. no bodies). • New AIS detections in 2019: Eurasian watermilfoil in Beaver Lake; curlyleaf pondweed near Billings; Asian clams at Lake Elmo (non-motorized; connected to Yellowstone River). • AIS Advisory Group formed – provide information and get feedback on AIS Program. Planning summit for this fall/winter. • Discussion: Dave S: cross country/commercial truck route – Wilbaux and Broadus stations very important. Steve F: Your budget is $5.3M but was closer to $6M in 2017. Is this because some of the costs are one time only? Tom: Yes, we have been able to make some capital/equipment purchases that aren't annual costs.
Hannah Riedl, DEQ	**Harmful Algal Blooms (HABs)** • 9 things you should know about HABs: 1) a HAB is a mass of cyanobacteria (blue-green algae); 2) cyanobacteria are common (native); 3) cyanobacteria can be toxic; 4) climate change effects HAB growth; 5) human activities are responsible for the increase in HABs (waste, agriculture, runoff, etc.); 6) there are currently no EPA standards cyanotoxins; 7) you can't tell toxicity by just looking (samples required); 8) no human deaths have been attributed to HABs (but pets, livestock and wildlife deaths reported); 9) stay away from harmful algal blooms. • Coordination between DPHHS, DEQ, and FWP • Launched July 2017- Online HAB reporting system • Public participation in reporting HABs through visual identification • Developing effective communication with Federal, County, and City Agencies • Monitoring: Can be local Health Boards, local water user organizations, state and federal agencies, and private landowners ➢ Passively monitor ("eyes on the ground" monitoring approach) for HABs within jurisdictions and report to HAB.MT.gov ➢ Responsible to monitor, test, issue advisories, and notify media ➢ Extensive blooms affecting multiple jurisdictions should coordinate with the State HAB Team to issue a unified message • Monitoring/testing: Not mandated but recommended – visual. Test kits and laboratory assistance is available at no cost on a limited basis. Then must send in for laboratory Analysis (EPA). • All monitoring and testing results report to the state HAB team: HAB@mt.gov • Decision chart for monitoring HABs:

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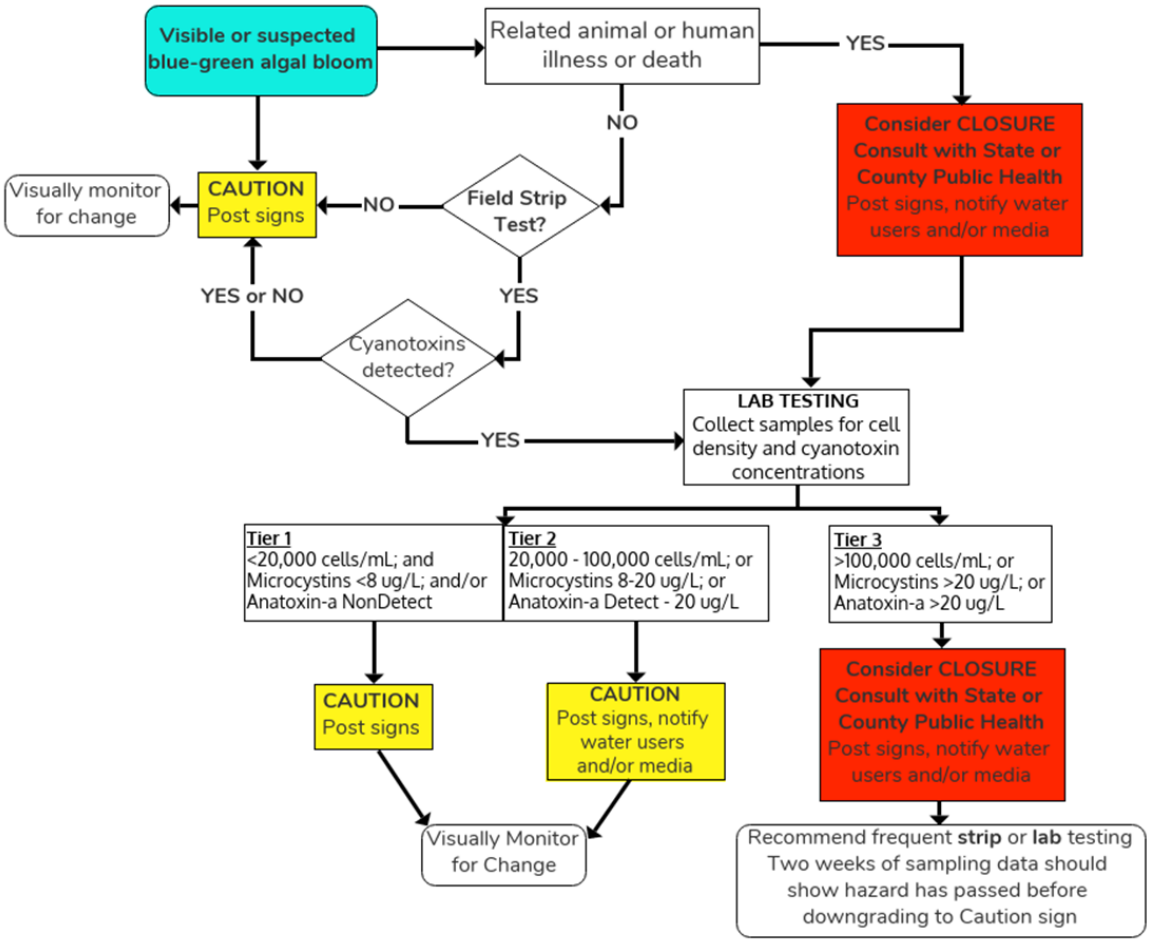

- In 2018, only 'caution' signs posted. Counties/local health boards have the authority to close waterbodies or limit access. 'Managing jurisdiction' responsible for monitoring, testing, issuing advisory and notifying the media.
- Reports come in from all over the state, but the vast majority are from the Lake Helena Valley area. Also using aerial satellite imaging for monitoring now (every 2-4 weeks).
- 2018 Challenges: Staying up-to-date on toxin levels requires frequent and large scale quantitative testing; communicating to the public without creating a big scare; acting quickly; determining who is responsible.
- Next steps: Continual public outreach; posting signs early at known HAB locations; continue to refine public map of verified HAB locations; nutrient criteria and monitoring
- Discussion: Jason G: Recommend that the FBC follow this issue closely. Lots of potential projects on the horizon. Do County health departments have kits? Hannah: No, but DEQ, DPPHS and FWP regional fisheries biologists (7 regions) have them currently. Would be great to get some to counties in the Flathead Basin.

Next Steps	• Next meeting: Set for Sept 26 though there are some potential conflicts to settle. Need location. • Selenium/headwaters issue gaining steam. Elected officials in MT, ID, WA, OR writing letters to BC government (re: mining/tailings). Follow up with Erin Sexton (FLBS) and Jason G. on legal side of transboundary issues. • Future meeting topic suggestions: State of the Lake presentation from FLBS (part 2). 5th anniversary of the Headwaters TMDL – presentation from implementation team (Flathead Lakers?). BPA mitigation in Flathead Valley/EIA on Columbia River System Operations (Hungry Horse implications. Mark, CSKT and FWP), 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. Project 'FreeFlow' (high school science club – recreational site inventory for camping along the North Fork – March meeting. Edu opportunity). Follow up on TMDL modeling/standards. Monitoring Committee (re-establish?). Aluminum facility, CFAC (Columbia Falls Superfund Site). Watershed group partners. Executive Committee to discuss.
Rich Janssen	**Public Comment** • Jim S: Conservation Districts Area Meeting Sept 24 or 25 in Bitterroot (Hamilton) • Crown of the Continent Roundtable Conference Sept 24-26 in Polson (KwaTuqNuk) • Transboundary Columbia River Basin Conference Sept 12-14 (Kimberley, BC) • Western Regional Panel on Aquatic Nuisance Species Oct 9-11 (Missoula, MT)
Wrap up	• Motion to adjourn (Dean), 2nd (Jasmine). All in favor, *motion passes*. Adjourned at 3:40 pm.

4. Action Items				
Action		**Assigned**	**Due Date**	**Status**
1	Send out draft minutes and updates	Kate Wilson	7/30/19	Completed
2	Next meeting date (doodle poll), location and logistics – late June, late Sept	Kate Wilson & Executive Committee	7/30/19	Completed
3	Need bios from: Dean Sirucek, Chip Weber, Tim Davis, Jason Gildea	Kate Wilson, FBC members	8/30/19	In progress
4	Draft a position description for administrative/programmatic support position	Kate Wilson, Executive Committee	9/15/19	Completed
5	Consider drafting a statement of intent between Lori (UC^3) and Rich (FBC) that would outline staff agreement	Executive Committee	9/15/19	To be discussed at next exec comm mtg
6	Consider formal letter to Local Gov Interim Committee depending on July 23 meeting outcomes	Executive Committee	8/15/19	In progress
7	Write and submit application for Big Sky Watershed Corps (BSWC) member for stormwater project	Casey Lewis, Kate Wilson, Mike Koopal	9/13/19 deadline for submissions	Completed
8	Seek additional funding for BSWC member and stormwater project	Kate Wilson, all	On-going	Completed (EPA grant)
Existing Actions from past meetings				
9	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
10	Request more information for future meeting on sewer capacity issue	Kate Wilson	Dep. on mtg topics	
11	Follow up with USFS (Chip Weber, Craig Kendall) on fire video – promote at/from FBC			In progress
12	Draft joint UC^3 letter on AIS importance/partnerships. Exec Comm to approve before submitting to local papers.	Kate Wilson	2020 season	In progress

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13	DEQ presentation to FBC when models are complete	Myla Kelly/Tim Davis	Sept 2019 meeting	Completed
14	Work with watershed staff on looking at opportunities that may work for state/federal partnerships	Chip Weber	On-going	
15	Reach out to other groups in basin for discussion on priority issues and potential partnerships	Kate Wilson	On-going	
16	Check with EPA and Lake/Flathead Conservation Districts (have watershed restoration plans to address TMDLs)	Kate Wilson		In Progress
17	Invite MT/CSKT reps in Columbia River Treaty to update on process/MT position	Kate Wilson	consider for future mtg topic	Attended 3/20 town hall meeting
18	Request assistance with populating and structuring site when the time comes – Windfall to present potentially	Kate Wilson	On-going	In progress
19	Address vacancies and reappointments on FBC – one citizen (gov-appointed voting member); BC rep (ex-officio); Jack Potter & Jasmine Courville-Brown reappointements	Kate Wilson	On-going	Completed with exception of BC

DRAFT

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 Dept. of Natural Resources & Conservation	UC^3	Upper Columbia Conservation 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/UC^3), 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 & UC^3 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, Commission Administrator	**Discussion & approval of draft Minutes**
	• June 26, 2019 (Pablo, MT): Quorum and notetaker; official minutes).
	  ○ 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. *Motion Passes*.

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 UC[3], the new support (admin) position will also be able to be paid out of the personnel budget.
- 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	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, UC^3 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).
- Motion 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.
- 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); UC^3; 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 flatheadbasincommission.mt.gov (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/UC^3 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 Bostrom, DNRC	**Agency and Legislative Updates** • DNRC's Conservation & Resource Development Division has come out with lots of grants and 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 Hanson, Flathead County; Ed Lieser; Mike Koopal	**Septic Regulations in Flathead County** • In MT, you can have four different kinds of health departments (have authority to do septic regulations). Make up of boards across state will differ. County Health Dept – most common in 56 counties (probably 85-90%). There is the ability to have a City Health Dept – can do as city, district or city/county. You can also form a district health Dept. Important because these are the folks 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*. o 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. Co-ops 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:
    - 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 (non-native 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: o 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). o Any telemetry work going on now? Matt: Not currently. Les: Lake trout spawning all over the place – lots of habitat. o 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). o 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. o Columbia River System EIS – proposals potentially effect Libby and Hungry Horse. Preferred alternative deadline on that – likely February. o 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. o 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. o 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: o 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 Committee Discussion	• Review of what happened a few years ago with monitoring committee. Jack and I were asked 3ish years ago to review monitoring plan done 10 before that and put together something that the 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. Project 'FreeFlow' (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 on commission. Oil Safe Flathead Oregon. Places like Mosier OR (explosion in community). I'm pretty impressed with BNSF rail response preparedness to extent that it is understood. But every week there is over hundreds of gallons of oil moving through the flathead a week. Rail safety and 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 involved in the development of these plans. Would like to go to Congress for appropriation for study. o Mark R: Re-raised this issue with BPA. A whole range of operational scenarios that we need to be aware even at the dams. Starting to get attention of disaster and emergency folks at BPA. o 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. o Kate: Did reach out to Headwaters and BNSF to have a panel. o 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), 2nd (Rich). All in favor, *motion passes*. Adjourned at 4:39 pm.

4. Action Items				
Action		**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 from past meetings				
6	Consider drafting a statement of intent between Lori (UC^3) 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