

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 <i>DRAFT</i> 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 (<i>provided</i>)	
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: <u>Rich Janssen</u> (CSKT), <u>Mike Koopal</u> (Whitefish Lake Institute/Upper Columbia Conservation Commission), <u>Steve Frye</u> (Governor-appointed member), <u>Randy Brohde</u> (Flathead County Commission), <u>Dean Sirucek</u> (Flathead Conservation District), Mark Bostrom (DNRC Helena), <u>Chip Weber</u> (USFS, Flathead National Forest), <u>Dave Stipe</u> (Lake County Commission), <u>Jack Potter</u> (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), <u>Mark Rellar</u> (BPA), Jim Williams (FWP), <u>Jasmine Brown</u> (Governor-appointed member), Jeff Mow (Glacier National Park)			
Commissioners (by phone): <u>Steve Frye</u> (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 <ul style="list-style-type: none"> • October 10, 2018 (Polson): Quorum and notetaker; official minutes). <ul style="list-style-type: none"> ○ <u>Motion</u> to approve as official minutes as written (Jack P). 2nd (Jasmine). All in favor. None opposed. <i>Motion Passes</i>. 		
Mark Bostrom	Legislative Updates <ul style="list-style-type: none"> • 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 (UC³) 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 UC³. 		

	<ul style="list-style-type: none"> • <u>HB6 & 7</u>: 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. • <u>HB11</u>: Treasure State Regional Water Program (Dept of Commerce). Wastewater upgrades and funding. Sill an issue of facilities not being able to meet standards and • <u>HB14</u>: Infrastructure bonding • <u>HB353</u>: Similar type bonding for state dept money to do large scale infrastructure (roads, bridges, schools, historic landmarks) • <u>HB56</u>: 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.
<p>Mark Bostrom</p> <p>Kate Wilson</p>	<p>Budget Discussion</p> <ul style="list-style-type: none"> • 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 UC³ could be an option. • <u>Discussion on NR fund</u>: 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. <ul style="list-style-type: none"> ○ State special revenue is also tight because of Medicaid expansion debate ○ 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 UC³ and staff, operate MISC and staff, and \$278k annually for AIS grants

	<p>(10% allowed for admin purposes). May be able to hire ½ FTE to help with administrative tasks like AIS grants,</p> <ul style="list-style-type: none"> • 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	<p>Staff Update work plan, financials/budget, website</p> <ul style="list-style-type: none"> • Staff update/report <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ UC³ AIS Program 2018 Evaluation (online survey) <ul style="list-style-type: none"> ▪ 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 UC³ <ul style="list-style-type: none"> ▪ 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). UC³ 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 <ul style="list-style-type: none"> ○ 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.

	<ul style="list-style-type: none"> ○ 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.
<p>Samantha Tappenbeck (Soil & Water Conservation Districts of Montana)</p> <p>Mike Koopal</p>	<p>Update on Septic Leachate Study bill</p> <ul style="list-style-type: none"> • 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 <p>Soil & Water Conservation Districts of Montana (SWCD) Septic Leachate Project</p> <ul style="list-style-type: none"> • 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

	<p>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.</p> <ul style="list-style-type: none"> • 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. • <u>Discussion:</u> 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
<p>Constanza von der Pahlen (Flathead Lakers)</p>	<p>Ashley Creek Outreach & Restoration Project</p> <ul style="list-style-type: none"> • 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.

	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ○ 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.
<p>Casey Lewis (City of Kalispell – Public Works)</p> <p>Mike Koopal</p>	<p>Stormwater</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ○ 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.

- 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
- PROPOSAL: 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 stormwater 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

	<ul style="list-style-type: none"> • <u>Discussion</u>: 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). <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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. <ul style="list-style-type: none"> ○ Committee: Dean, Mike, Jasmine, Kate, Casey • <u>Motion</u> (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. <i>Motion Passes</i>.
Tom Bansak (Flathead Lake Biological Station)	<p>Flathead Lake Biological Station History/Overview/Priority Areas</p> <ul style="list-style-type: none"> • 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

- 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:
 - 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
 - Nutrient issues in 1970s news articles; mysis shrimp example
- Flathead Monitoring Program (FMP) – all started with coal in the North Fork in the 1970s
 - 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)
 - Initial studies funded by EPA
 - 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)
 - 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)
 - 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.

	<ul style="list-style-type: none"> • 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.) <ul style="list-style-type: none"> ○ 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). ○ AIS: Mussels would be the real ‘flathead lake monster.’ eDNA testing for mussels and EWM. Have been sampling with eDNA past 5 years. <ul style="list-style-type: none"> ▪ Established 30 sites around Flathead Lake (3x per year) ▪ Working cooperatively with state agencies ○ 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. ○ We are a lake culture and people love these waterbodies – ‘point positive’ messaging. Keep finger on the pulse and make smart decisions. ○ <u>Discussion</u>: 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	<p>Public Comment</p> <ul style="list-style-type: none"> • 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 septic – 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	<ul style="list-style-type: none"> • Next meeting: Kate to doodle for later in June, September.

	<ul style="list-style-type: none"> Future meeting topic suggestions: <u>BPA mitigation in Flathead Valley/EIA on Columbia River System Operations</u> (Hungry Horse implications. Mark, CSKT and FWP), <u>southern BC development</u> (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), <u>AIS updates</u> (Tom Woolf). <u>Oil train group and Matt Jones BNSF update</u>. <u>Project 'FreeFlow'</u> (high school science club – recreational site inventory for camping along the North Fork – March meeting. Edu opportunity). Follow up on <u>TMDL modeling/standards</u>. <u>Cynobacteria/harmful algal blooms</u> (DEQ). <u>Aluminum facility</u>. <u>Watershed group partners</u>. Executive Committee to discuss.
Wrap up	<ul style="list-style-type: none"> <u>Motion</u> to adjourn (Dean), 2nd (Jasmine). All in favor, <i>motion passes</i>. 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 <ul style="list-style-type: none"> 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

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

DRAFT

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: <u>Rich Janssen</u> (CSKT), <u>Mike Koopal</u> (Whitefish Lake Institute/Upper Columbia Conservation Commission), <u>Steve Frye</u> (Governor-appointed member), <u>Randy Brohde</u> (Flathead County Commission), <u>Dean Sirucek</u> (Flathead Conservation District), Mark Bostrom (DNRC Helena), <u>Chip Weber</u> (USFS, Flathead National Forest), <u>Dave Stipe</u> (Lake County Commission), <u>Jack Potter</u> (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), <u>Mark Rellar</u> (BPA), Jim Williams (FWP), <u>Jasmine Brown</u> (Governor-appointed member), Jeff Mow (Glacier National Park)			
Commissioners (by phone): <u>Steve Frye</u> (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 <ul style="list-style-type: none"> • October 10, 2018 (Polson): Quorum and notetaker; official minutes). <ul style="list-style-type: none"> ○ <u>Motion</u> to approve as official minutes as written (Jack P). 2nd (Jasmine). All in favor. None opposed. <i>Motion Passes</i>. 		
Mark Bostrom	Legislative Updates <ul style="list-style-type: none"> • 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 (UC³) 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 UC³. 		

	<ul style="list-style-type: none"> • <u>HB6 & 7</u>: 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. • <u>HB11</u>: Treasure State Regional Water Program (Dept of Commerce). Wastewater upgrades and funding. Sill an issue of facilities not being able to meet standards and • <u>HB14</u>: Infrastructure bonding • <u>HB353</u>: Similar type bonding for state dept money to do large scale infrastructure (roads, bridges, schools, historic landmarks) • <u>HB56</u>: 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.
<p>Mark Bostrom</p> <p>Kate Wilson</p>	<p>Budget Discussion</p> <ul style="list-style-type: none"> • 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 UC³ could be an option. • <u>Discussion on NR fund</u>: 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. <ul style="list-style-type: none"> ○ State special revenue is also tight because of Medicaid expansion debate ○ 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 UC³ and staff, operate MISC and staff, and \$278k annually for AIS grants

	<p>(10% allowed for admin purposes). May be able to hire ½ FTE to help with administrative tasks like AIS grants,</p> <ul style="list-style-type: none"> • 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	<p>Staff Update work plan, financials/budget, website</p> <ul style="list-style-type: none"> • Staff update/report <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ UC³ AIS Program 2018 Evaluation (online survey) <ul style="list-style-type: none"> ▪ 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 UC³ <ul style="list-style-type: none"> ▪ 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). UC³ 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 <ul style="list-style-type: none"> ○ 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.

	<ul style="list-style-type: none"> ○ 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.
<p>Samantha Tappenbeck (Soil & Water Conservation Districts of Montana)</p> <p>Mike Koopal</p>	<p>Update on Septic Leachate Study bill</p> <ul style="list-style-type: none"> • 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 <p>Soil & Water Conservation Districts of Montana (SWCD) Septic Leachate Project</p> <ul style="list-style-type: none"> • 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

	<p>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.</p> <ul style="list-style-type: none"> • 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. • <u>Discussion:</u> 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
<p>Constanza von der Pahlen (Flathead Lakers)</p>	<p>Ashley Creek Outreach & Restoration Project</p> <ul style="list-style-type: none"> • 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.

	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ○ 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.
<p>Casey Lewis (City of Kalispell – Public Works)</p> <p>Mike Koopal</p>	<p>Stormwater</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ○ 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.

- 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
- PROPOSAL: 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 stormwater 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

	<ul style="list-style-type: none"> • <u>Discussion</u>: 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). <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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. <ul style="list-style-type: none"> ○ Committee: Dean, Mike, Jasmine, Kate, Casey • <u>Motion</u> (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. <i>Motion Passes</i>.
Tom Bansak (Flathead Lake Biological Station)	<p>Flathead Lake Biological Station History/Overview/Priority Areas</p> <ul style="list-style-type: none"> • 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

- 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:
 - 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
 - Nutrient issues in 1970s news articles; mysis shrimp example
- Flathead Monitoring Program (FMP) – all started with coal in the North Fork in the 1970s
 - 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)
 - Initial studies funded by EPA
 - 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)
 - 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)
 - 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.

	<ul style="list-style-type: none"> • 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.) <ul style="list-style-type: none"> ○ 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). ○ AIS: Mussels would be the real ‘flathead lake monster.’ eDNA testing for mussels and EWM. Have been sampling with eDNA past 5 years. <ul style="list-style-type: none"> ▪ Established 30 sites around Flathead Lake (3x per year) ▪ Working cooperatively with state agencies ○ 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. ○ We are a lake culture and people love these waterbodies – ‘point positive’ messaging. Keep finger on the pulse and make smart decisions. ○ <u>Discussion</u>: 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	<p>Public Comment</p> <ul style="list-style-type: none"> • 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 septic – 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	<ul style="list-style-type: none"> • Next meeting: Kate to doodle for later in June, September.

	<ul style="list-style-type: none"> Future meeting topic suggestions: <u>BPA mitigation in Flathead Valley/EIA on Columbia River System Operations</u> (Hungry Horse implications. Mark, CSKT and FWP), <u>southern BC development</u> (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), <u>AIS updates</u> (Tom Woolf). <u>Oil train group and Matt Jones BNSF update</u>. <u>Project 'FreeFlow'</u> (high school science club – recreational site inventory for camping along the North Fork – March meeting. Edu opportunity). Follow up on <u>TMDL modeling/standards</u>. <u>Cynobacteria/harmful algal blooms</u> (DEQ). <u>Aluminum facility</u>. <u>Watershed group partners</u>. Executive Committee to discuss.
Wrap up	<ul style="list-style-type: none"> <u>Motion</u> to adjourn (Dean), 2nd (Jasmine). All in favor, <i>motion passes</i>. 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 <ul style="list-style-type: none"> 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

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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