

FLATHEAD BASIN COMMISSION

Kalispell Wastewater Treatment Plant
2001 Airport Rd, Kalispell, MT

February 19, 2020

AGENDA

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

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

MEETING MINUTES

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

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

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

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

Notes and Discussion

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

FY21 Estimated Budget: Table Below

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

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

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

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

EPA Grant Components (2020-2022)

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

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

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

Discussion

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

Mark Bostrom, DNRC

Agency & Legislative Updates

Agency Updates and Discussion

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

Legislative Updates and Discussion

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

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

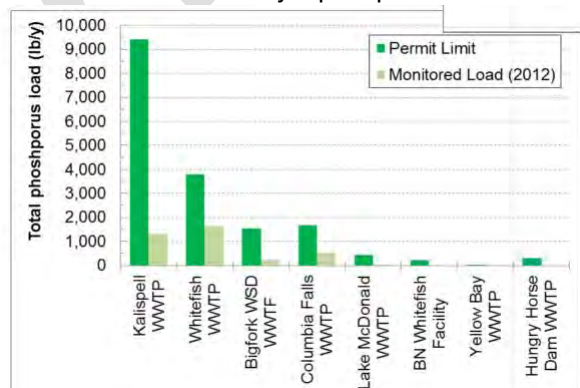
	<p>implemented was shown to increasingly reduce stormwater contamination. Not sure it's a good site for the project (mitigation already completed).</p> <ul style="list-style-type: none"> ○ Casey: Follow up sampling on their treatment here could give alternative perspective (for a different type of treatment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

Flathead lake TMDL Model Analysis & Discussion

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

TMDL Model Analysis

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

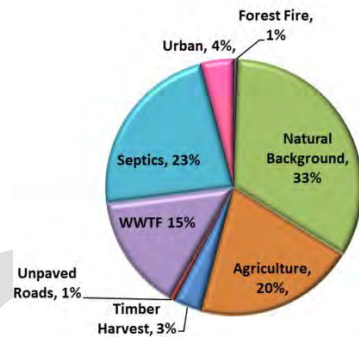


Model Results

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

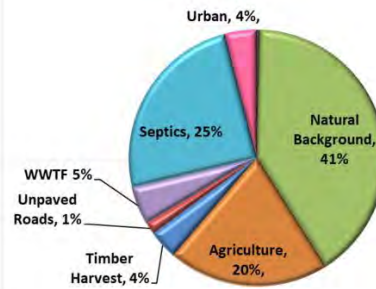
- Model results of Phase 2: more developed Flathead lake and Stillwater
 - Natural Background (33-41%)
 - Agriculture (20%)
 - Septic (23-25%)
 - WWTFs (15-19%)
 - Timber Harvest, Urban, Forest Fires, Unpaved roads, etc.
- Scenarios completed on the watershed and compared loads entering Flathead Lake: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

Phase 2 Annual TN Load from Landuses



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

Phase 2 Annual TP Load from Landuses



Total P Average daily load: 173 lbs/d

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

Onsite Wastewater Treatment Committee updates

Committee Updates & Meeting Review

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

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

Susie Turner, City of Kalispell Public Works Director

Kalispell Public Works Overview/Update Smart Growth and WWTP 2020

Smart Growth and WWTP Update

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

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

**Plant Design to treat 5.4 MGD
Avg flow is 2.8 MGD**

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

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

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

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