



DECISIONS AND ACTIONS

Steering Committee
Wednesday, July 20, 2016

Victoria Canoe and Kayak Club

Present: John Francis (VGR&R), Adam Steele, Cathy Carolsfeld, Rick Daykin, Dorothy Chambers, George and Vicki Blogg, Terry Eckstein, Yogi Carolsfeld, Julian Anderson, Kitty Lloyd, Jody Watson

Guest: Lisa Rodgers, Elk/Beaver Lake Initiative Coordinator, CRD

DECISIONS				
1	GWI will submit a letter to CoV recommending some criteria for the regulations associated with the Gorge Waterway Zone			
Next Meeting: 21 September 2016				
ACTIONS			ACTION BY	DUE
1	Name card for Adam Steele		Kitty	Sept
2	Send letter to CoV regarding requirements for Guidelines in the Gorge Waterway		Kitty	Sept
3	Talk with Brad Drew regarding minimum flows for Colquitz and see if GWI members can participate in the discussions		Jody	ASAP
4	Send pertinent reference regarding use of muds and DNA mapping and lanthanum in fish scales to Lisa Rodgers		Yogi	ASAP
5	Talk to Brian Green regarding a GWI representative on the committee for Vic West neighbourhood plan		Jody	ASAP
6	Provide a summary of bird surveys on the website		Dorothy/ Kitty	When available
7	Talk to Deb Becelaere regarding View Royal's plan to put a dock in Portage Inlet		Kitty	ASAP

INFORMATION

Action Items from Last Meeting:

- Tour of McKenzie Interchange footprint area in Cuthbert Holmes Park was held 13 June with 15 GWI members, Dave Edgar, Mike Pearson (MOTI staff) and Sandra Hemstock (biologist from McElhanney)

Change to agenda: No presentation from MOTI staff

Elk/Beaver Lake Report: Lisa Rodgers, EBLI Coordinator

- Email contact Lisa at elkbeaver@crd.bc.ca for any questions about the project
- Lisa completed an MSc from UVic on Watershed and Lake Health, did work on St Mary's Lake on Salt Spring Is and Elk/Beaver Lake as part of her thesis
- BSc degree focused on landscape ecology; past work history includes environmental permitting, restoration planning and monitoring
- Part time position sits in CRD Integrated Watershed Management Program and Regional Parks
- Lake has a history of contamination, plan on continuing sampling that is already underway
- Completed content to add Elk/Beaver Lake on the CRD "featured watersheds" page (<https://www.crd.bc.ca/education/our-environment/watersheds/featured-watersheds>)
- Michelle and Mick Collins were the informal EBLI coordinators and now Lisa will coordinate an intergovernmental group and a stakeholders group
- Stakeholder group liaison between the non-profit members and the steering committee, GWI member may be interested in participating; would like to start this group in October, would like to expand it to include First Nations groups and immigrants from other countries
- First task – Elk Beaver Lake resource guide; compile the info that already exists; review, identify data gaps, look at some gaps and cost activities that would close those gaps, pros and cons of different approaches
- Subsequent meetings will be held to talk about that document and how to draft a lake and watershed management plan
- Main problem in the lake is high phosphate levels, recommendation from report by Gertrude Nurnberg for MoE ("Evaluation of remediation options for Elk/Beaver Lake, Victoria, BC", 2016 http://colquitzcoalition.com/wp-content/uploads/2015/06/Nurnberg-Elk-Lake-Remediation-Report-2016_03_01.pdf) is to apply Phoslock, a bentonite clay based product that has been used successfully in lakes elsewhere with this problem. Approx. 5% of Phoslock is lanthanum, this is used in dialysis drug treatments – not a concern for human health
- Nurnberg report recommended that Phoslock is the best candidate – under perfect conditions Phoslock works really well – lanthanum binds the phosphorus to reduce the phosphate levels; currently the low oxygen condition in deep parts of EBL pulls phosphorus out of sediments when lake is stratified by temperature; no oxygen exchange with deeper water layers, in fall surface water cools down and a lake rollover releases all the phosphorus back into the water column causing a winter algal bloom
- Before Phoslock there were other clay-based products with alum – Province denied permits to use these products because of higher risk of toxicity to fish
- Objective – reduce the frequency and duration of toxic algal blooms in the lake
- When phosphorous is reduced with Phoslock treatment it will change the algal community – these lakes have toxic algae, if phosphorous levels is altered it will impact the food chain and change the dominant algal species
- Phoslock alternatives such as dredging are not suitable in EBL
- Phoslock needs to be applied when phosphorus is in lake sediment and seals it in, it essentially binds and covers the sediment. Can work really well, though has not been used yet in BC
- Concerns at Elk/Beaver Lake:
 - Reports of a lot of carp in EBL: bottom feeders that increase turbidity by loosening the sediments; concerned they might break the Phoslock seal after it's applied; Golden R&R Club is having a carp "fish out" but so far has not caught many
 - Phoslock is not recommended in areas with high humic acid – might be the case on EBL; study ongoing to look at the humic acid level and organic matter because it interferes with the bonding sites for phosphorus, when it does bond it releases from the lanthanum which can then move downstream and might impact fish in Colquitz
 - Need to do a proper fish survey including a bottom trawl

- Protocol for a fishermen's survey: questions like why are you fishing (fun/food) and what are you catching?
- EBL is approximately 12m in the deepest part, generally between 2 – 5m
- Number one problem is the low flushing rate (high residence time)
- People should contact Brad Drew at CRD Parks regarding the required minimum flows for Colquitz fish in the summer time
- GWI members would be interested in joining the conversation about minimum flows in Colquitz because of concerns for downstream fish
- Highly nutrified system; paleolimnology cores in the lake show noticeable change starting in the 1950s, increase in nutrient inputs from land development and use of phosphate fertilizers
- Phosphate likes to bond so just need to find alternatives to bond to; how can we manipulate that; could regrade lake margins and install swales so phosphate can adhere to soil before it enters the lake
- Would like to see some strategic restoration around the lake, should be shallow areas with vibrant wetland community of bulrushes and sedges; wetland would provide some filtration as the plants use up the nutrients and this helps keep things in balance
- Restoration in Haliburton Brook, will create a better shallow water and littoral zone
- UBC has a good fisheries modelling unit, an MOE person is embedded in that unit – talked with him about doing a predictive model of the lake
- Environmental DNA – new technology where sample of water can be analyzed for DND that has washed off the fish and other biota, can analyze and can get a species profile of the lake – leading edge research, bar coding project looks at mitochondrial DNA; there is a UVic researcher working on that for bullfrogs

GWI discussion/questions:

- Where is the phosphorus coming from?
 - Most is from the sediments in lake bottom
- Would there be a need to repeat the application of Phoslock in a few years?
 - Should expect treatment to last many years, but re-application is not out of the question as phosphate will always be present in the system
- Is there Eurasian milfoil in the lake?
 - Not sure, will know more after weed identification course in September; will find out if it transports downstream, although not likely to get established in the downstream moving-water environment
 - New weed harvester is up and running, bolts keep coming loose so staff are working to make it more sturdy; this will help with weed control in short term
- Will there be an issue with the bullfrogs?
 - There is a link to the blue-green algae problem: bullfrogs eat macro-invertebrates and dragonfly larvae, and the zooplankton eat the algae, sunfish also eat the zooplankton resulting in more algae in the lake, it essentially causes a trophic imbalance
 - Lots of need to facilitate a better trophic balance in the lake as part of the overall solution
- What about highway construction going on now?
 - They are just re-surfacing, Lisa will work with CRD Parks to decrease negative effects of the fresh asphalt, e.g. installing oil absorbent spill pads and fabric along the highway
- Questions/concerns about the dam:

- There is a meeting planned in September to start process of drafting a dam management plan; dam is new to CRD Parks, need some time to learn how to best manage water levels
- In the meantime contact Brad Drew with concerns about water levels in Colquitz: bdrew@crd.bc.ca

NOTE: Additional information from Lisa following the meeting, clarifying the Beaver Lake dam situation:

Regarding current flows over the Beaver Lake dam to the Colquitz (per Brad Drew, CRD Parks):

- The downstream flows are checked weekly at the flow monitoring station.
- The dam is set to meet minimum required flows at all times; if there is extra rainfall, additional water may spill over, but not any less.
- Dam operators must meet a “rule curve” in order to maintain lake levels so that minimum flows can be maintained throughout the dry season (until November), while also maintaining the level of water in Elk and Beaver Lakes so lake level does not get too low in the summer.
- If too much water is released, minimum flows could not be maintained until the rains return.
- A public information session will be held sometime this fall to discuss dam operation and the upcoming Dam Management Plan.

Boats at Anchor in the Gorge

- Gorge Waterway zoning bylaw amendment is in effect now
- Council met last week, spoke about the progress being made in the Gorge, proceeding to hand out the notices to boat owners; in early fall remaining boats will be served with an injunction, have an environmental assessment in draft form
- ACTION: GWI will submit a letter regarding the regulations associated with the zoning bylaw
- Letter should recommend that CoV contact CRD Parks about this as frequent lifting of the trestle will involve significant amount of labour. It takes 5 crew to raise and lower trestle

Vic West Neighbourhood Plan

- Advisory group is being established for developing the neighbourhood plan
- Brian Green is the planner in charge
- Adam will provide the link to the website to express interest in being on this committee
- GWI may request getting presentation at various points in the process

Coordinator Updates

Green Shores Project with Stewardship Centre for BC and CRD Climate Action Program:

- Three years of funding was received from Real Estate Foundation to establish a GS working Group with 4 – 6 communities in coastal BC
- Funding application to Sitka Foundation also, will hear shortly about that
- Aim is to deliver Level 1 and 2 GS training courses, co-delivered with UVic
- Will train GS verifiers who will look at submitted documentation for a proposed GS project and do onsite inspection to verify the rating applied for.
- There will be community engagement activities, educational workshops and training, webinars and technical support for GS demonstration projects (residential and public parks) in each community
- Some outreach materials, fact sheets, etc are ready now, these can be tweaked to suit different areas

Other Updates:

- Kitty gave a presentation about the GWI to the Community IWM group meeting 22 June 2016
- There's an MEC race on Sunday September 4th along the Gorge. GWI is welcome to set up an info display there for before/after along Harbour Rd
- Tri-MBS partnership: next meeting July 26, the agenda includes working on principles, objectives and project goals for Urban Sanctuaries Project; project will run over next 18 months, coinciding with 2017 centennial of Migratory Bird Convention; group is applying for funding from Victoria Foundation for outreach and stewardship events and materials
- No response yet from MOTI to our letter in June regarding the McKenzie Interchange

CRD Harbour Program Updates

- Bird survey – developing terms of reference, want to begin this fall and try to do surveys for 2 years to get seasonal and geographic distribution of birds (especially Migratory Birds)
- Water quality objectives – redrawing all the boundaries of watershed maps to reflect changes in infrastructure, have to redo a lot of statistics; meanwhile still waiting for reply from province regarding draft submitted many months ago
- Ecological inventory – planning for next spring/summer; in discussion with DND to see if they can help fund surveys in Esquimalt Harbour
- IREI – natural asset management

Partner Updates

FoCHP – Dorothy is doing beached bird surveys along the Songhees walkway; Rhinoceros auklets are dying in large numbers along south coast Vancouver Is; about 12 dead auklets have been found in the harbour over the last 2 weeks – they are doing necropsies on them now

Esquimalt Parks – Memorial park installed, youth playground, rec centre adventure park is proceeding \$1.8m contract will include water park, 2 playgrounds, had to put in 20 new lights in Esquimalt Gorge, the vandalized lights will not be fixed until next year due to expense; Esquimalt Village project – new development, Aragon won the proposal, lots of salvage of old buildings, new library, new justice building; Old English Inn will start to transform as well – a plan for condos on that property, minimize the impact for roadways and utilities, attempting to have 0 loss of trees, they are looking at moving and replanting significant large trees

PISCES – AGM on Sunday July 24th, in constant contact with MOTI regarding the trees in Portage Park, concerned that they are going to remove them, looking for mitigation

WFT – doing a new tour from nature house, 2 students for summer, Kitty is doing an orientation with students tomorrow, Japanese garden is drawing a lot of people to the park, oyster surveys in 3 different sites, Craigflower Bridge footings are covered with native oysters, View Royal is putting in a boat ramp on Christie Pt right of way between two houses, being called an emergency access for fire protection

VGRRS – Members are fishing for carp in Elk/Beaver Lake to try to reduce the number of carp there before Phoslock application

CoV – concern about high coliform and metals from Banfield Park outfall

Seaquaria – Have been busy organizing the 2016 Northwest Marine and Aquatic Educators (NAME) conference, being held at Pearson College, lots of great keynote speakers and field trips, go to the website to register: <http://www.pacname.org/conf.shtml>

Swim Fest Society: 2016 Swim Fest is on Sunday August 7th, Banfield Park, noon – 4pm.

Adjournment: 9:45pm