



## DECISIONS AND ACTIONS

**Steering Committee**  
*Wednesday, May 15, 2019*

Victoria Canoe and Kayak Club

- Present:** Dorothy Chambers, Sara Stallard, Ann Klein, Yogi Carolsfeld, Dave Cooke, Rick Daykin, Bill Thomas, Brad Proctor, Phil Lancaster, Don Munroe, Brianne Czypyha, Jacklyn Barrs, Bruce Bevan, Mick Collins, Sean Leas, Natalie Bandringa, Kitty Lloyd
- Guest:** Patty Menning, DFO; Marina Wright, DFO; Sean Wong, MoTI; Andrew Anderson, MoTI; Colleen Long, CRD Parks; Dana Godley, UVic

DECISIONS				
1	GWI volunteers will join Bill Thomas to clip salmon fins at Goldstream Hatchery on June 22			
<b>Next Meeting: 17 July 2019</b>				
ACTIONS			ACTION BY	DUE
1	Send notice for Harbour Stewardship Series talk – EConcrete June 4 <sup>th</sup>		Kitty	Done
2	Look into where Island Health posts the results of beach water quality sampling		Natalie	ASAP
3	Reach out to local First Nations to invite them to take part in the GWI		Natalie/ Kitty	Soon

## INFORMATION

### Agenda review:

- Joanne Letkeman is unavailable able to come tonight, Sean is presenting an update on restoration and mitigation plans

### Review of action items from January 16, 2019 meeting:

- RE Research on stormwater runoff effects on coho salmon by Jennifer McIntyre: Kitty contacted her about coming here to give a presentation; awaiting her reply
- RE Beach water quality sampling by municipalities on behalf of Island Health: Municipalities will start collecting the samples, IH continues to pay lab fees and analyze data. This is how it's done elsewhere in the province; not sure if this change will happen 2019 or 2020

**ACTION:** Natalie will look into where the results are posted.

- RE trip to Goldstream Hatchery to clip salmon fins: Bill Thomas offers to lead a trip on Sat. June 22. Ideally a group of 14 or so would be good

**First Nations territorial acknowledgement:** Natalie

**ACTION:** Reach out to local First Nations to invite them to take part in the GWI

- Natalie reported that the CRD Board Chair received a letter from Songhees Chief Sam regarding their interest in establishing a special management area on the Colquitz and Gorge Waterway. To our knowledge there has been no written response from CRD yet, but there's a meeting with CRD and municipal staff and Songhees members on May 17 about this.

**Presentation: Early Detection Monitoring – European Green Crab;** Patty Menning, DFO Aquatic Invasive Species Biologist

- New legislation enacted in 2015 gave DFO mandate to manage aquatic invasive species (AIS)
- 13 staff in this unit across Canada
- Draft vision for the national core program:
  - Protect Canada's freshwater and marine ecosystems from introduction and spread of AIS
  - Mitigate negative impacts of established AIS populations
  - Benefit Canada's biodiversity, economy and society
- 4 main pillars in their mission: prevention, early detection, response, control and management
- Jurisdiction: marine is federal; freshwater (e.g. quagga and zebra mussels) is provincial, but levels of government collaborate on invasive species
- European Green Crab is not a new species here, there are many established populations along the outer coast
- Ranked as one of the world's 100 worst alien AIS
- First detected in BC 1999; DFO started sampling for them in 2006
- Females can carry 250,000 eggs
- Live 4 – 7 years, reproductive after 1 yr; can reach 9-10 cm width
- Predators include raccoons, Dungeness and Red Rock crabs
- Had hoped that currents would keep them out of Salish Sea, but there's now a big population in Sooke Basin (Roche Cove), and a few have shown up elsewhere (Witty's Lagoon, Esquimalt Lagoon)
- Green Crabs dig up eelgrass in search of worms etc; can fundamentally alter an ecosystem
- Working with Washington Sea Grant, transboundary project
- Look for pocket estuaries, tidal lagoons, low wave exposure, presence of prey organisms (e.g. small crabs, clams, fish) and absence of predators,
- More like a shore crab, make shelter in overhanging vegetation
- Characteristic identification is 5 bumps on either side of carapace (back shell)
- Not always green, juveniles are very variable in colour
- If very orange underneath – means it's an adult nearing last moult
- Easy to confuse with Dungeness or Graceful crabs
- Found in a range of habitats, seem to prefer softer substrates where they make burrows in overhanging banks; shallow upper subtidal
- 2 types of traps are used: Gee traps used to capture juveniles and to check for prey species in area; Japanese Fukui traps (like a folding prawn trap) for adults
- Bait jar with herring is placed inside the trap
- Don't want the traps to dry out at low tide, also don't want to entice land animals or birds that might drown in the trap, or fish that would die when trap dries out

- Typical sampling program involves monthly sampling April to September when crabs are most active
- There has been an established population in Sooke for several years, but more recent discoveries in the area:
  - Witty's Lagoon: 4 green crabs in in 2018
  - Esquimalt Lagoon: 2 in April 2019; DFO is working with Esquimalt Lagoon Stewardship Initiative volunteers to monitor this population
  - Port Renfrew: 7 in 2018; working with Pacheedaht Nation to monitor
- At Esquimalt Lagoon, a test set was done in April, and one female was found near the bridge – higher current area.
- An eradication program was started – DFO and trained ELSI volunteers set 90 traps all around the lagoon; following day, one female GC found, again near the bridge.
- Today, Patty and Marina set 21 traps along the Royal Roads University shoreline, will pick these up tomorrow and see if any GC are caught [*news update: they found none on May 16*]
- Other areas DFO will monitor are here in the Gorge and Booth Bay on Salt Spring (these areas identified as most suitable habitat for green crab to establish a population)
- Want to know where likely “hot spots” are in the Gorge/Portage Inlet, and where good access points are for DFO staff and/or volunteers. Staff use a canoe and set strings of traps in a long line if the area is very muddy or hard to access on foot. This arrangement is not suitable for volunteers who will do monitoring on foot, with gumboots or chest waders
- Depending on substrate and current, traps are held in place with a steel rod into sediment, and sometimes an extra weight in the trap

A large map of the Gorge was used for people to mark good access points for staff to deploy a set of traps. Part of the reason for attending this meeting was to get local knowledge about good potential trapping sites

**McKenzie Interchange Update:** Sean Wong, MoTI (presentation slides to follow)

- Working outside of the main Highway Interchange Project – designing a restorative treatment for the stormwater from the partial cloverleaf (“parclo”) outfall area, as well as the “east outfall” area
- Appreciates all the efforts that local volunteers and park stewards have made to protect the park, the river, and provide him with so much information to make sure this restorative treatment can be as good as possible
- There are temporary culverts in place to manage flows during the construction phase
- Wants to create a feature that will treat the stormwater coming off the parclo, and provide some habitat for aquatic plants, insects, etc to help filter and treat the runoff before it enters the Colquitz
- There will be mounds, coarse woody debris added, artificial snags nearby to create heterogeneity;
- May add oyster shell for substrate in the treatment wetland, as well as gravel
- Spawning gravel will be added in other areas near the river
- Thinking about improving adjacent disturbed areas of the riparian that are now just flat and grassy – by adding artificial snags, nesting poles and boxes, other habitat complexity
- Sean has access to 1000s of free tree saplings (variety of conifers and alders). Will plant about 5000 alders, coastal bunchgrass and mulch with straw – as extra habitat improvement for the riparian areas (i.e. even outside the area disturbed by this project)
- On riverbank – considering adding dendritic channels for improving salmon off-channel habitat
- Also marsh benching to add more habitat complexity and heterogeneity

- There will also be funding for ongoing monitoring of this restoration after the project (could go to local groups)
- At the east outfall, the meadow has year-round water on it; good place for a wetland pond feature before water discharges to creek; don't want to attract fish into wetland though, as water quality likely to be poor; wetland feature is primarily for water quality treatment, not a wildlife feature
- May release chum fry from other hatcheries, try and re-establish native species
- Sean has surplus seedlings: cedar, fir, alders; they can hold them until the fall if groups want some for other sites
- Are there deer to worry about?
  - Sean is not aware that deer are a big problem in the Cuthbert Holmes Park

**Elk/Beaver Lake Initiative update** – via email from EBLI Coordinator Jill Robinson

- Addressing internal nutrient loading issues in Elk/Beaver Lake through the In-lake Remediation Plan.
- The first phase of the in-lake remediation project is almost complete!
- Received draft reports from consultants that provide a summary review of all data collected to date, identifies critical data gaps in our understanding of the lake and developed a plan to collect critical data in 2019. Will finalize these reports this month.
- Key data gaps identified include: understanding how water and nutrients move between the lakes, and understanding nutrient and oxygen issues in Beaver Lake (most of data collected to date has been focused in Elk Lake).
- We continue to monitor water quality in the lake to better understand lake dynamics, and collect critical information in Beaver Lake.
- Next steps are to finalize Phase 2 – collect the critical data necessary to support the selection and design of an in-lake remediation for the lakes.
- Addressing external nutrient loading through a watershed management plan.
- Expecting to engage public on the watershed management plan throughout the summer and into the fall to develop a plan to reduce external sources of nutrients entering the lake.

**Partner Updates**

**Golden Rods & Reels:** Involved with WFT on the cutthroat trout project; want to recognize the excellent collaboration with CRD Parks and Barri Rudolph from stormwater monitoring group; getting good data, meetings with CRD staff have made it easier to understand the flow data, Barri having another meeting to discuss stormwater; province (Ron Ptolemy) has also been helpful; received lots of useful historical data; heading in right direction with inter-jurisdictional collaboration; blockages on Craigflower Creek from woody debris; need an effort to resurrect “derelict creeks”; wants Parks to have a system set up to make it easier for volunteers to help in parks and along creeks; who to contact about getting appropriate permits to do the works in creeks; permitting is one of the most frustrating parts of doing the work; club is making a financial contribution toward the WFT herring project

**Esquimalt Anglers:** Just finished replacing most of the floats at Fleming Beach, carrying on with streamkeeping on Craigflower

**VCKC:** Held the 38<sup>th</sup> Paddle for the Kids, raised money for kids to go to Camp Shawnigan, Wake up the Gorge regatta, 2 day event; 22<sup>nd</sup> year of cleaning up the Gorge, most of the garbage was found under Colquitz bridge; lots along the highway and Christie Pt; help out with Power to Play, Big Brothers and Big Sisters, also Canada Day, will have canoe rides available; lots of canoe and kayak courses now underway

**GWAS:** Nature House open on weekends; when school is out for summer it will be open weekdays; summer student starting around June 15

**WWF:** Collaborating with Peninsula Streams on forage fish surveys; doing some beach monitoring in the Gorge

**Peninsula Streams:** Bill Thomas is now a director; Sat. Nov 9<sup>th</sup> PSS will hold a gala dinner fundraiser at Saanich Fairgrounds; \$85 each tables of 8, maybe GWI could book a table; looking for donations for silent auction; money will go to core budget; out at Senanus Is. with PSS recently; 30 volunteers went to island to remove ivy, blackberries

**Esquimalt:** stewardship alive and well; 51 volunteers at latest Branch out event, thanks to GVG T Mcloughlin getting closer to reality; concepts being sought for upgrades to Esquimalt Gorge Park, rhododendron garden getting planted; hope to bring concept drawings to next GWI meeting; first farmers market this week, 80 rhodos were donated by Victoria Rhododendron Society; many are very large; massive donation, 35 members came out to plant the shrubs; 600 students for Earth Day at High Rock Park event; WWF and WFT were there, several other exhibitors; goats were there, new trail built; High Rock Park really starting to take shape; Blooming Beautiful – tour will focus on new plots at community garden, also some private gardens

**PIPS:** no report

**WFT:** Herring still their focus; core element is citizen observation of herring fishery and at other parts of life cycle; tried with WWF last summer to introduce a phone app, didn't work so well, looking at other efforts; also interested in marine environment – discussed the upcoming Harbours Stewardship Speakers Series – ECONcrete CEO coming June 4<sup>th</sup>

**ACTION:** Kitty will email the advertisement

**Oysters:** ECONcrete donated some of their product, are trying this out to see if this will help the reef balls; plan to make a new reef ball with ECONcrete product – maybe this will attract oyster larvae better than existing ones; PICI project working well, good partnership with PSS, June 8<sup>th</sup> World Oceans Day at Gorge Nature House; looking for silent auction items

**SIASS:** Originally got their funding from DFO license buyback; used funds for creek restoration; have been in a holding pattern for 12 years when federal funding dried up; keeping the society alive, but now that there is new funding available for this kind of work, group is starting to apply for some of this funding;

**Saanich:** Will have a display at the Canada Day event on the Gorge; major engineering project proposed along Gorge Rd upgrading stormwater infrastructure, open to including stormwater treatment opportunities; are closing off some of the old storm drains; involving a QEP; Peter Kelly is the engineer in charge; timeline – supposed to start later this summer

**Salmon in the City:** Working with a contractor putting a new top on the Colquitz fish fence next week; 10 days ago in the midst of releasing fry with Royal Oak Middle School, there was a “tidal wave” of warm, low oxygen water full of sediment, temperature went from 10° to 18°, O<sub>2</sub> from 9 to 3.5 in a few minutes. It was from Horticulture Centre of the Pacific releasing water from beaver dam upstream; outmigration of coho at risk of being completely wiped out from this, also last fall's fish; FLNRORD reported that they never would have given a permit for this activity, it's unlawful; there's also a natural state covenant where the beaver dam was; CRD responded very quickly, also Saanich engineering

**Q:** Is there an opportunity to create proper land and water management plan?

A: Laws prohibiting this already exist.

**Gorge Swim Fest Society:** Jack asked that group be reminded of the 3<sup>rd</sup> Gorge Access meeting May 30<sup>th</sup> 7pm at the Vic West Community Centre

### **CRD Harbours Program Updates** – Natalie Bandringa

#### **Invasive species:**

- staff report requesting that this should be a program is being prepared, this would require an additional requisition from municipalities;

- Regional Invasive Species symposium May 29<sup>th</sup>, not open to public this year; mostly a working session about disposal in the region
- Lots of outbreaks of knotweed in the region; also poison hemlock which often grows where blackberries have been cut
- Milk thistle outbreaks being treated; hope to have a workshop on controlling yellow flag iris;
- Clean Drain Dry program; CRD is part of the pilot program, getting signs and outreach materials to raise awareness about not transferring invasive animal or plant material (larvae, spores, seeds etc) between water bodies
- Harbours survey RFP being prepared; wanting to do test trial of different methods including orthophoto imagery, satellite imagery, drone footage; want to do an accurate inventory that we can repeat reactively and repeatedly; will include a workshop open to the public at some point

**Coordinator Updates** – Kitty Lloyd

- EConcrete presentation by Shimrit Perkol-Finkel June 4<sup>th</sup> 10am – Noon at CRD; notice to go out later this week
- 2019 Annual Update – text and photos are with the artist, should be ready for GWI review in next couple of weeks
- NatureHood: creating a “naturecache” scavenger hunt to encourage/reward people for getting out into their nearby parks. Hoping to launch on Parks Day July 19

**Adjournment: 9:45pm**