



The Future of Wetlands in the Lower Mainland: A workshop to strengthen capacity and collaboration

Monday February 2nd, 2015

Report



This project was financially supported by:



The Future of Wetlands in the Lower Mainland

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Purpose of Workshop

February 2nd World Wetlands Day was a perfect opportunity to host a workshop for wetlands. “The Future of Wetlands in the Lower Mainland: A workshop to strengthen collaboration among stakeholders” was designed to improve partnerships and collaboration among government, conservation groups, and community stakeholders who are involved with wetland conservation in the Lower Mainland.

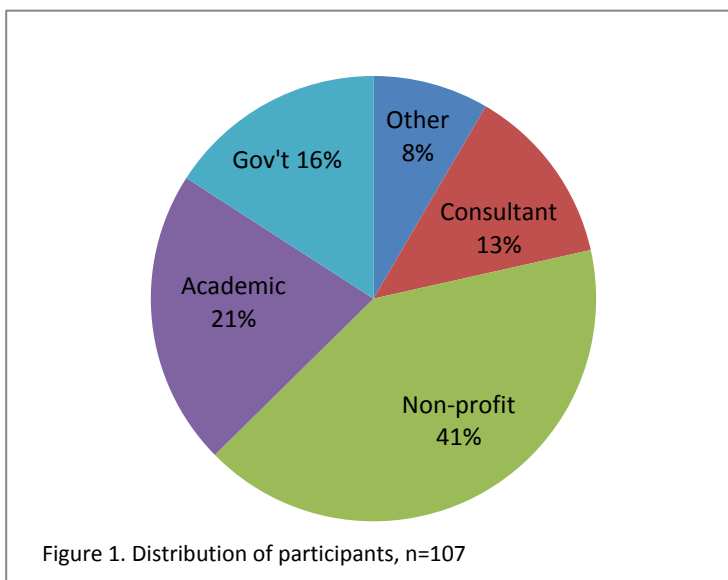
The workshop brought together 107 professionals from the following backgrounds seen in Figure 1. A detailed list of attendees is attached in Appendix 2.

The day consisted of a number of presentations by engaging speakers and presenters from a number of prominent conservation groups including Ducks Unlimited Canada, the Elk River Alliance, and the South Coast Conservation Program. A range of topics were presented and

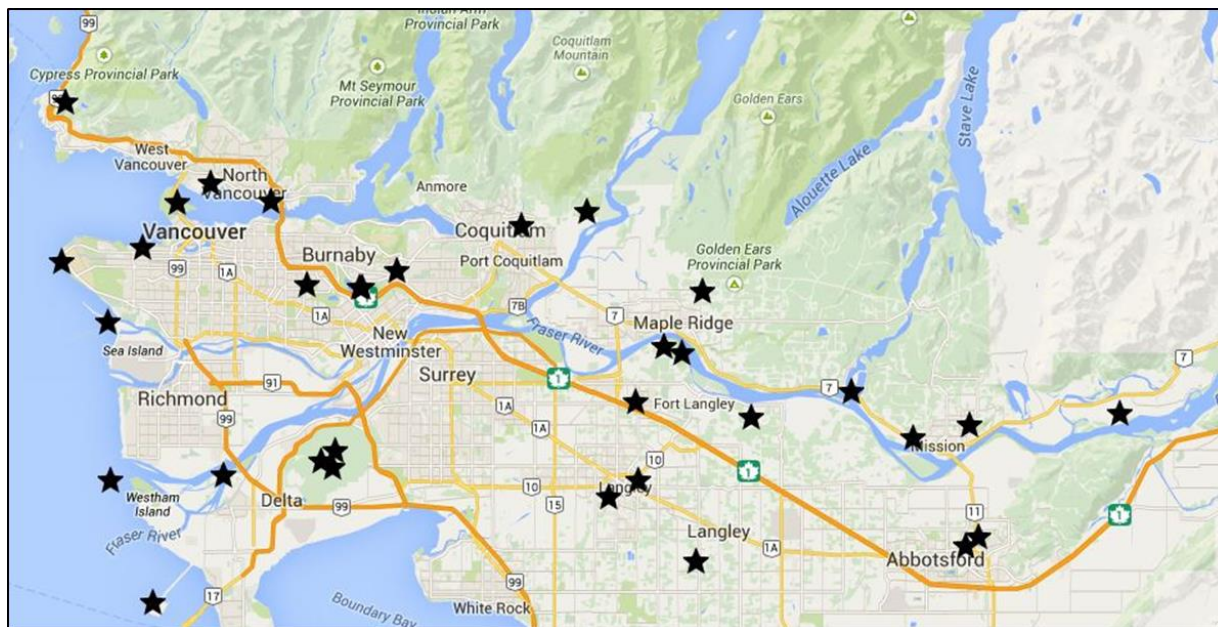
discussed, including an overview of the state of wetlands in the Lower Mainland, how government and conservation groups can work together on important projects, and enhancing local capacities to protect and conserve ecosystems at risk.

In addition, the workshop featured important group discussions to strengthen and foster collaboration among the stakeholders and groups present. Workshop participants were asked to identify opportunities and challenges in the areas of information, political will, resources, regulatory instruments, and policy that they need to move forward to support wetland conservation. Discussion groups were then formed to discuss how working together can help the various stakeholders overcome shortcomings and be more successful in their contribution to wetland conservation. Breakout groups included an exploration of: 1) developing a regional restoration network, 2) enhancing communication, 3) developing a research hub through academia, 4) funding opportunities with the National Wetland Conservation Fund, and 5) enhancing public support and political will.

This workshop built upon the [“Wetland Workshop for Municipalities”](#) November 19th, 2013 in the Lower Mainland as well as the [“Wetland Leadership Workshop”](#) led by the David Suzuki Foundation in June 2012 with the related [Lower Mainland declaration](#) released May 2013.



As another activity to enhance collaboration, workshop participants were asked to add their organizations current wetland projects to a printed map with post-it notes. The projects were then added to this Google Map and an interactive version can be found [here](#).



Map 1. Current wetland projects in the Lower Mainland from workshop participants.

Summary of projects:

Name	Organization	Location
Manley Farm wetland restoration	Northwest Wildlife Preservation Society /BCIT	Cobble Hill
Stop Port Metro Vancouver from building a second container terminal	Against Port Expansion	Tsawwassen
Protecting all estuary wetlands from jet fuel tankers	VAPOR	Fraser Estuary
Zooplankton dynamics	UBC PhD study	Fraser River Estuary
Hydrology monitoring and restoration	Burns Bog	Delta
100 year management plan involves the restoration of the bog	Burns Bog	Delta
Working to educate people about peat land and protecting unprotected Burns Bog	Burns Bog	Delta
Monitoring bird use of habitat at Iona Beach Regional Park	Wild Research	Richmond
Enhance and protect salt marshes at Wreck Beach		Vancouver
Kitsilano Rocky Intertidal 1.8km between Alma St and Trafalgar St		Vancouver
Beaver Lake		Vancouver
Mackay Creek Estuary		North Vancouver

Lynn Creek Estuary Restoration Project	BCIT	North Vancouver
Howe Sound Research and conservation group	Vancouver Aquarium	Howe Sound
Guichon Creek. Proposal for daylighting creek/wetland construction.	BCIT environmental restoration program	Burnaby
Nest Box program at Burnaby Lake	Burnaby Lake Park Association	Burnaby
Stoney Creek. Off-channel pond 2012	Stoney Creek Environment Committee	Burnaby
Coquitlam River Watershed Roundtable. Plan for the lower Coquitlam River		Coquitlam
Minnekhada Regional Park. Invasive management	Metro Vancouver	Coquitlam
Proposed North Langley Wetland Restoration and Education	Langley Environmental Partners Society	Langley
Derby Reach Bog	Metro Vancouver Parks/ Derby Reach Park Association.	Langley
Yorkson Creek	Langley Environmental Partners Society	Langley
Brydon Lagoon	Langley Field Naturalists	Langley
Langley Campus 45 acres of wetland & stream restoration on campus	Kwantlen Polytechnic University	Langley
Forslund-Watson Vernal Pond	Langley Field Naturalists	Langley
WOLF Watchers of Langley Forests (and Wetlands)		Langley
Maple Ridge Park. Wetland creation proposal.	BCIT project	Maple Ridge
Stave River Estuary & off channels	Fraser Valley Watershed Coalition	Maple Ridge/Mission
Silverdale Wetlands	Fraser Valley Watershed Coalition	Mission
D'Herbomez Creek and Stormwater detention pond improvement	BCIT	Mission
Turtle Habitat Protection	Coastal Painted Turtle Project	Mission
Maclure Wetland	Fraser Valley Conservancies	Abbotsford
Willband Creek	Abbotsford/Mission Nature Club/ Local Schools	Abbotsford

Presentation Summary

A contextual overview of the state of wetlands in the Lower Mainland and an introduction and overview of the workshop

Neil Fletcher- BC Wildlife Federation and Dan Buffett- Ducks Unlimited Canada

[Click here](#) to view presentation

Key points of the presentation included:

- Wetlands in the Lower Mainland are most at risk due to conversion and degradation. It is critical that wetlands are secured, but once secured, there are still ongoing impacts of invasive species, restricted water flows, and poor water quality. Wetland loss in the last 2 decades is not high (estimated at 5%) but degradation continues to impact wetland function.
- Projected population growth will affect how we make decisions for the future. Recent population projections include an additional 930,000 people in Metro Vancouver, 109,000 in the Fraser Valley Regional District, and 16,000 in Squamish-Lillooet Regional District by 2041. There is a lot of great work happening with wetlands in the Lower Mainland (as seen in Map 1) that should be celebrated, for example: regional parks have secured many important wetlands, Squamish Estuary has recovered from degradation, Burnaby Lake Park Association engages in great stewardship work, and Burns Bog and nearby estuaries have been designated as RAMSAR sites with international recognition.
- The David Suzuki Foundation came out with [aquatic valuation study](#) that gave \$ value to wetlands, which was \$3,000-\$378,000/hectare per year. In 2012, DSF held a workshop in Lower Mainland that resulted in the development of a [wetland declaration](#) that set a goal of no net loss and to bring back 10% of lost wetlands providing key actions as part of a strategy.
- Past BCWF planners' workshops in Lower Mainland strategized how to work with and support local government. A resource prioritization survey suggests that local government primarily needs better regulatory tools, increased public awareness, and supportive council, and an empowered staff. There is also need for collaboration, financial support, conservation tools (better bylaws, on ground restoration, broad public support), and gatekeepers from local government and non-profits to allow to move forward in conservation.
- Wetland Stewardship Partnership of BC (WSP) works on different initiatives: Green Bylaws tool kit, Wetlands Action Plan for BC, provincial policy, and information exchange for regional initiatives. Wetlands Action Plan goals 1-good information, 2-information to raise awareness, 3-good laws and policies, 4-integration with other processes, 5-secure, conserve and restore wetlands, and 6-partnership to lead and support wetland conservation.
- Why are you here? 24% responded specifically that you want to develop partnerships and enhance learning, while the other 76% want to learn a mix about the local government perspective, restoration opportunities, research opportunities, protection of wetlands, and funds.

Five enabling conditions for government and non-government relations towards advancing watershed conservation initiatives

Lee-Anne Walker- Elk River Alliance

Lee-Anne's master's thesis studied citizen-based science by looking at how to build relationships between community and local decision makers. Since completing her master's in 2009, Lee-Anne has had a few years to implement her 5 thesis recommendations. She spoke to the key ingredients as she experienced them through the development of the Elk River Watershed Alliance. [Click here](#) to view presentation

Key points of the presentation included:

- Elk River Watershed Alliance is bridging the water sustainability gap. Work is connected to early memories connected to place. Environmental citizenship is built through the following ladder: unsupportive → unaware → aware → appreciates → understands → values → behaves → leads. Water can serve as guiding and binding force. Citizens can make personal decisions but don't have legitimacy. Decision makers have legitimacy but need support from citizens. The benefit of citizen scientists is they can provide a very dedicated workforce when there is a role for them, and they can restore trust in decision making processes, but the risks are that it takes time and a need for robust data.
- Visioning for a healthy watershed is important for moving forward. Elk River has various ways to engage citizens. The 5 enabling conditions are:
 - A. View community participants as a strategic investment in social capital, buy in (build relationships)
 - B. Work with community-based water groups to identify, assemble and consider all technical and factual information about the watershed (are you asking the right questions and quality data)
 - C. Share information to foster collective support for water sustainability (decision makers want to see filling of gaps eg, Elk River Alliance working with Tech coal)
 - D. Engage community-based water groups in the design of a monitoring and reporting process (community education component)
 - E. Create framework for integrated adaptive management to make sustainable water development decisions (eg, Elk Valley cumulative effects management framework)
- A visual conceptualization that joins the main concepts of Lee-Anne's enabling conditions and the goals of the Wetland Action Plan, [that of 1. Better information, 2. Increase awareness, 3. Enabling legislation, 4. Supportive Frameworks, 5. Improved land securement and restoration. 6. Enhanced coordination and Capacity] is depicted in Figure 2. This figure was introduced during Lee-Anne's talk and then used as a conceptualization tool for the Settling Pond Activity – (refer to Appendix 5).

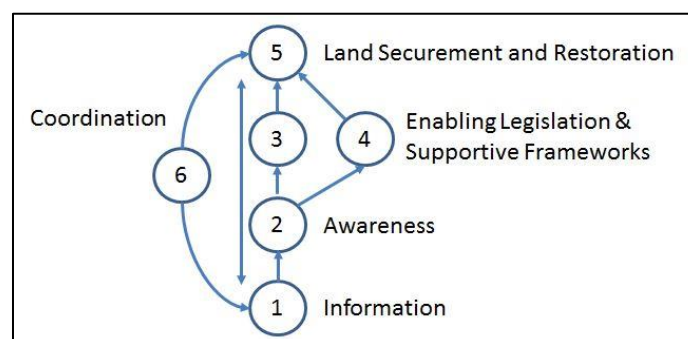


Figure 2. Wetland Conservation Goals

Lessons learned from public engagement and best practices in watershed stewardship

Dana McDonald- Evergreen

Dana spoke about her works as the Greenspace Program Manager at Evergreen BC. Dana has a background in urban watersheds and public engagement in the Lower Mainland. Her work connects communities and cities with nature. [Click here](#) to view presentation

Key points of the presentation included:

- Examples learned from engaging the public. The “Uncover your Creeks” initiative was introduced as an example of an initiative with a goal to build citizen science. It educates people who don’t know what watersheds are and it also builds a group of citizen scientists through monthly stewardship events such as: invasive species removal, native planting, and water quality sampling. Since April 2013 in BC, the program hosted over 110 events that engaged 1200 people including 300 high school students.
- Successes: 1) Make it local, entry level, connect with own watershed. 2) Provide the program in an accessible way and make it inclusive. What is environmental stewardship?.- Purposeful care for a meaningful place. Anyone can be a steward. Build connection to place 3) Create informed volunteers and invest in public. Provide skills to enable them to take long-term care. 4) Foster connection, communication, collaboration. (eg. urban watershed forum).
- Challenges 1) Difficult to balance meaningful and robust data with accessibility. 2) Gaining momentum. Be patient and get the word out (twitter is great) 3) Citizen science. Difficult to motivate individuals to take on long term responsibility. Current program is good for entry level, but difficult to take it to the next level.
- Next steps: 1) More involved stewardship without pushing it. No capacity for further training for volunteers but could partner with Streamkeepers to take on long term stewardship. 2) Great work going on but gap between all available resources . Upcoming forum to engage with policy and decision makers. Direct efforts to maximize stewardship.

The role of the South Coast Conservation Program and recent collaboration with local governments to enhance capacity to protect and/or conserve species and ecosystems at risk

Pamela Zevit- South Coast Conservation Program

[Click here](#) to view presentation and [click here](#) for programs/resources

Key points of the presentation included:

- SCCP works with communities from Powell River to Hope to Pemberton. Focus on endangered species. Supports legislation and stewardship practices to better protect species and ecosystems at risk.
- Lower Mainland population growing rapidly and hotspot for endangered species. Creates stress on wetlands and riparian areas. SCCP works to get people involved and engaged in conservation.
- At least 61 native species on the South Coast are associated with wetlands, not including those found in estuaries and vernal pools. BCCDC 2015
- Funding focused on core programs. Province of BC has initiatives underway working with local government to address species and ecosystems at risk. SCCP is further supporting this initiative at local government level. Not well known that species at risk have to be protected on private land. Want decision makers to be aware of their obligations regarding Species at Risk. Wetlands are key and loss of habitat is related to species loss. We have policies, but we are not using the tools we have available. Need to work more collaboratively. Sharing skills and resources.

The National Wetland Conservation Fund and opportunities to access \$50million over 5 years

Ivy Whitehorne- Canadian Wildlife Service

[Click here](#) to view presentation

Overview: New funding program around less than 1 year. Aimed at wetland restoration and enhancement projects. 5 year program. Call for proposals once a year ~October next year for projects 2016-2017. \$50 million total. \$2million/year for BC and Yukon. Objectives: restore, enhance degraded wetlands, wetland science around restoration efforts. Limited support for land securement. Aimed at larger scale projects \$20,00 - \$500,000/year. Competitive fund. Up to 3 year projects. Priorities for regions with high wetland loss (Lower Mainland is a priority region). Projects with long term benefits.

Requirements: A maximum of 50% of the total project cost can be derived from the NWCF, with non-federal contributions (cash and/or in-kind resources) required to obtain NWCF funding. Minimum of 1:1 matching contributions (from non-federal sources) is required (\$1 match for \$1 NWCF funding).

Please visit the following website for further information on the NWCF:

https://www.ec.gc.ca/financement-funding/default.asp?lang=En&n=56914323-1#_11

Panel discussion with local government

Representatives from local governments were asked to provide their insight into how local governments can collaborate with non-government agencies. This information discussion was led by the following:

Mark Sloat- City of Burnaby

Lee-Anne Walker- Elk River Watershed Alliance

Liana Ayach- City of Surrey

Dana McDonald- Evergreen BC

Hailey Steiger-Tang- City of Richmond

Pamela Zevit- South Coast Conservation Program

Question posed: What are mechanisms/avenues that citizens and non-profits have available to them to advance wetland protection direction within local government?

Mark: Some citizen-based groups have been instrumental in encouraging and supporting good regulations and policy development (e.g., streamkeepers groups). Interest groups can raise their concerns directly to staff or in some cases to the City's Environmental Committee, which advises Council on environmental issues and can request staff input on issues as needed. In Burnaby, there are four citizen representatives on the Environmental Committee.

Hailey: Contacting staff directly in City Hall to find out the best avenues moving forward, and what staff can be most helpful in creating some internal traction. There is the option of bringing a delegation to Council. Also see if the municipality has any citizen advisory committees, or even a committee focused specifically on the environment. Delegating to these committees can be less intimidating than being in front of Council, but can be effective to get wetland/environment issues in front of staff - Councilors may also be on these committees.

Liana: Bottom up approach

Lee-Anne: 1) When making a presentation to mayor city council, staff, regional district planning commissions/councils think about your audience characteristics if you can - what are their backgrounds, experience with your topic etc. and try to relate to them. 2) Summarize information and provide it well in advance for their briefing packages, for example this [Elk River Flood Solution Strategy](#) briefing note was used to make presentations to local government. 3) Open a dialogue on their key questions - what might they need to know to make better decisions? How can you support them to be 'heros'. 4) Be specific with your ask at the end of your presentation - what do you want the city to do? For example: declare World Wetland Day; assign a staff member as a point person for your issue; fund an aspect of your project.

Dana: Each municipality has its nuisances regarding how information is best delivered to council. Ask around on how you can deliver your message. Know where your gatekeepers and access points are so you have the least hoops to jump through.

Pamela: Establish good relationships with local governments. Communication is key. Maintain credibility.

Question posed: What will local government do to protect what natural areas we have left?

Mark: Long range planning helps to identify important ecosystems and recommend policies for protection. Redevelopment gives opportunity to restore and enhance historically degraded streams and ecosystems.

Liana: Surrey Biodiversity Conservation Strategy mapped habitat corridor, then Surrey buys those areas to add land to ensure continuity.

Hailey: Many of Richmond's ecologically valuable areas lie outside the dike, outside of City jurisdiction. One avenue the City has taken is the purchase of the Grauer Lands which are outside the dike, in a unique partnership with Ducks Unlimited Canada. The Grauer Lands are already a provincial WMA / Ramsar designated, but to further protection, Ducks Unlimited will work on research and protection of these lands into the future. In terms of the Jet Fuel project (note: as issue brought up by a participant earlier), many sensitive areas of the Fraser River estuary could be threatened by this project. The City opposed the project, while process and decisions from higher level of government have led to it moving forward. One of the new City councilors has been actively opposed to the project, so may be able to bring more attention to this issue in the future.

Question posed: Are local governments looking back on old material and learning from that? E.g. Biodiversity strategy

Pamela: Worked on biodiversity strategy for 9 years. Biggest learning outcome for them to be effective is that it needs to be very focused. Regional level governments with multiple stakeholders take much longer and can run out of steam like it did. More successful when done at a smaller scale and led by independent organization such as what was accomplished in the South Okanagan. Other examples are City of Surrey and City of Vancouver's biodiversity strategies and environmental policies.

Mark: Yes. Staff always aims to be comprehensive when undertaking review of existing policies and creating new policies, management approaches, bylaws, etc.



Summary and results of Resource Prioritization Activity

As an interactive component of the workshop, we asked participants “if you have 10 resources units, where would you allocate the needs for conserving wetlands?” Each participant checked off 10 resource within areas they thought were most important under categories including: information, political will, instruments, and other. On the form in Appendix 4, participants were encouraged to elaborate with comments regarding each category in the space “swamp bubble” provided. Refer to Appendix 4 for a sample.

This activity was designed to help agencies determine where to allocate time and resources towards wetland conservation based on the following options:

Information

- Mapping
- Statistics and trends

Political Will

- Valuation of services
- Staff
- Engaged council
- Public- local champions
- Public awareness

Instruments

- Regulatory tools
- Voluntary tools
- Policy

Other

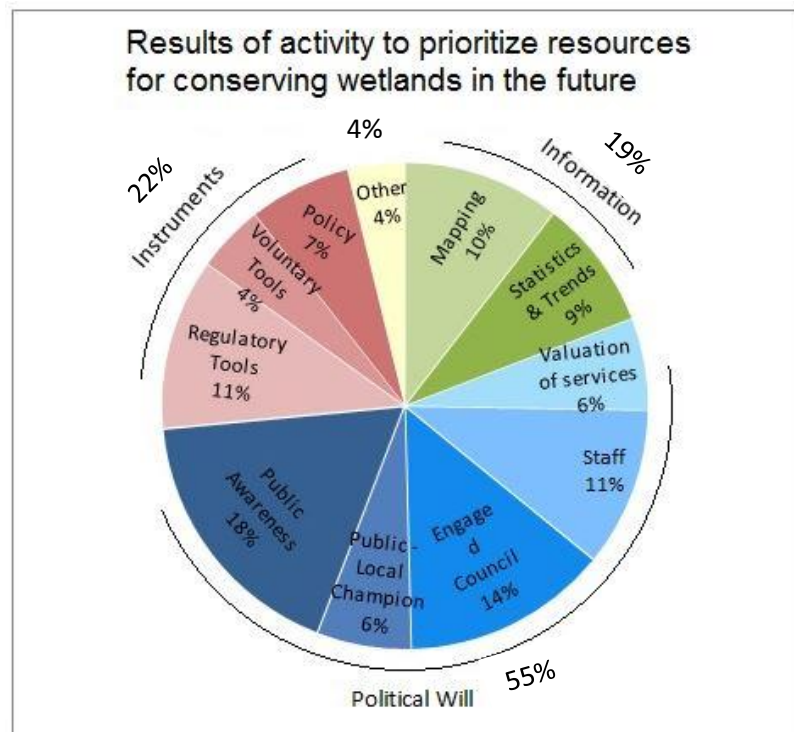


Figure 3. Results of activity to prioritize resources for conserving wetlands in the future. n=75

Results:

Proposed initiatives to focus limited resources	Percent from all participants n=75	Non-Profit n=26	Local Gov n=7	Academia n=14	Not indicated on form n=27
Public Awareness	18% *	24% *	11%	21% *	11%
Engaged Council	14% *	17% *	19% *	10%	8%
Regulatory Tools	11% *	14% *	6%	12% *	9%
Staff	11% *	13%	7%	7%	12% *
Mapping	10%	8%	19% *	11%	12% *
Statistics & Trends	9%	0%	11%	12% *	6%
Policy	7%	5%	6%	7%	13% *
Valuation of Services	6%	2%	4%	10%	12% *
Public- Local Champion	6%	5%	14% *	4%	4%
Voluntary Tools	4%	6%	0%	5%	9%
Other	4%	7%	3%	0%	3%

Table 1. Proposed initiatives to focus limited resources

Based on the results from this survey, participants prioritized: public awareness (18%), an engaged council (14%), and regulatory tools and staff (11%) as the key focal areas we should focus our efforts on for wetland conservation and protection. Table 1 highlights the variation in results based on the different stakeholder groups. Non-profit organizations top 3 priorities were public awareness (24%), engaged council (17%), and regulatory tools (11%). Local governments responded differently with engaged council and mapping (both 19%) as their top priority, followed by public- local champions (14%). Academic groups top priority was public awareness (21%) followed by regulatory tools and statistics and trends, both (12%). Those who did not indicate which group they belong to had an almost even distribution with policy (13%) and staff, mapping, and valuation of services all at (12%).

Summary of Settling Pond Activity

The “Settling Pond” activity was developed to capture all the great ideas and initiatives “floating around” to address wetland conservation issues in the Lower Mainland. Participants were asked to write down how they or their organization can support aspects of the framework introduced in Lee-Anne Walker’s presentation (Figure 2). Next, they were asked to identify an opportunity to support the framework. (See Appendix 5 for a copy of the worksheet). During the lunch break, participants attached their completed sheets to the wall where they think their work best fits based on the 6 goals. Many participants found this exercise helpful to learn about how other groups can support other initiatives and where they can gain support. A detailed table compiled with all responses is available in Appendix 5. This activity was well received from the participants because it helped to facilitate information exchange among the large group of participants. One participant stated in the evaluation, “the settling pond activity was informative – again - thinking structure”.

Overall, there was a good distribution (as seen in Table 2) among the Wetland Conservation Goals (1. information, 2. awareness, 3. enabling legislation, 4. supportive frameworks, 5. land and securement, and 6. coordination and capacity). After on reading the responses, many individuals listed several goals in the work they are doing. A “wild card” option was where several key groups placed their sheet, as they are involved in several areas to support wetland conservation.

Results from “Settling Pond”	Total	Total n=81	Non-profit n=20	Gov’t n=11	Academia n=20	Consultant n=6	Other n=17
Goal 1. Information	26%	21*	8*	1	8*	4*	0
Goal 2. Awareness	22%	18*	6*	2*	4*	0	6*
Goal 3. Enabling Legislation	7%	6	1	0	0	1*	4*
Goal 4. Supportive Frameworks	7%	6	3	1	1	0	1
Goal 5. Land and securement	15%	12*	1	4*	5*	1*	1
Goal 6. Coordination and capacity	7%	6	3	2*	1	0	1
Wildcard: fit in multiple goals or unsure where to fit	15%	12*	6*	1	1	0	4*

Table 2. Results from “Settling Pond”. A * refers to one of the top 3 choices in that group

The results show that information and awareness were the overall area where individuals have focused their effort or identified an opportunity. Table 2 shows the variation in priorities for different stakeholders. Non-profit organizations listed information followed by awareness and wildcard as areas of focus. Government organizations had different results with land and securement as their area of focus. Academic groups and consultants both chose information as their area of focus. The other column in Table 2 includes those who did not put their name on the sheet. The areas with least focus, based on participants in the room, are enabling legislation, supportive frameworks, and coordination and capacity.

	Organization,	Key points on projects	Location	Name, Code (see Appendix 5)
	1. INFORMATION			
Gov	The Corporation of Delta	Support and engage citizen scientists	Delta	Sarah Howie (I)
Non-profit	LEPS	Mapping, awareness, landowner contact	Langley	Sarah Atherton (J)
	Little Campbell Watershed Society	Share information on watershed.	Langley	David Riley (M)
	Echo Ecological Habitat	Monitoring fish and wildlife populations before and after wetland restoration	North Shore	Tara Matthews (P)
	Fraser Valley Conservancy	Collect and share info on Oregon Spotted Frog	Fraser Valley	Aleesha Switzer(R)
	Pacific Streamkeepers Federation	Wetlandkeepers and streamkeepers programs work together to add to database		ZoAnne Morten (S)
	Stoney Creek Environment Committee	Water quality monitoring in Stoney Creek with SFU Environmental Sciences Dept.	Burnaby	Alan James (U)
	Community Mapping Network		Across BC	Rob Knight, (B)
	Friends of Semiahmoo Bay Society, Volunteer	<i>General statement:</i> Communicate science to public	Across Lower Mainland	Keith Sorenson (E)
		Endangered species programs. Engage funders. Share information		(K)
Consultant	A Rocha Canada	Monitoring and inventory of 11 species at risk in Little Campbell River Watershed and communicating findings.	Langley	Andrew Baylis (N)
	Hammera	Communicate science to decision makers and public	Lower Mainland	Jim Roberts (H)
	Hammera/ Wildresearch	Monitoring bird use of wetland and riparian areas in Iona Regional Park	Richmond	Renae Mackas (T)
Academia	UBC PhD study	Zooplankton dynamics	Fraser River Estuary	Joanne Breckenridge, (A)
	KPU Urban Ecosystems Program	Research project to restore stream on campus	Langley	Tom Peterson (C) and Kristen Hudson (F)
	2. AWARENESS			
Local Gov	Metro Vancouver Regional Parks	Many awareness programs eg. interpretive programs, stewardship program, park partnership program, brochures, signage, park staff, restoration projects, collaboration	Lower Mainland	(GG)

Non-profit	Bryne Creek Streamkeepers	<i>General statement:</i> Impact on information and awareness. Volunteers educate public	Burnaby	(V)
	Burnaby Lake Park Association	Host work parties eg nest box program to promote awareness	Burnaby	(X)
	Green Teams of Canada	Hands-on outdoor experiential education	Lower Mainland	Lyda Salatation (BB)
	Burns Bog Conservation Society	Campaign against development in Burns Bog. Planning "Wetland Nature Festival"	Delta	Gerard Cowan (HH) Maureen Vo (NN)
		Trout Lake bog restoration project spreading awareness through engaging volunteers, using social media, monitoring success.	Vancouver	(II) (JJ)
	Vancouver Aquarium	20 years producing impactful images as a tool for conservation. Also build awareness through strong online presence		Jonathan Wong (KK)
	Coastal Painted Turtle Project	Share info and implement bylaws to protect Western Painted Turtles		(MM) Deanna MacTavish
Academia	BCIT Ecological Restoration Program	Various project proposals in Lower Mainland	Burnaby	Rebecca McMurray (Z) Stephen Bonetti (AA)
	KPU Urban Ecosystems Program	Research project to restore stream on campus	Langley	Marie Pudlas (EE) (CC)
		Protect Red-legged frog habitat from skytrain construction		(DD)
		Educate the public through interpretive nature walks		(W)
		<i>General statement:</i> Teach students		(Y)
	City of Surrey Volunteer	<i>General statement:</i> Share experiences with other volunteers	Surrey	Theresa Coles (LL)
		<i>General statement:</i> Lead by example to promote awareness.		(FF)
3. ENABLING LEGISLATION				
		Surveying species at risk on private land and sharing data with municipalities		(OO)
		<i>General statement:</i> Demonstrate importance of wetlands to council to repair watersheds		(PP)
		<i>General statement:</i> Invasive species removal and monitoring		(QQ)
		<i>General statement:</i> Consultants help provide valuable information to ngo's and stewardship groups		(RR)
4. SUPPORTIVE FRAMEWORK				
Gov	City of Burnaby		Burnaby	Mark Sloat (TT)
Non-	Stanley Park Ecology Society	Monitoring information and volunteer capacity	Vancouver	Robyn Worcester (VV)

Academia	Tri-City Green Council	Involved in Coquitlam River Roundtable	Coquitlam	Melissa Chaun (XX)
	Bowen Island Nature Club	Ensure no net loss of ecological and wetland function at Grafton Lake and wetlands	Bowen Island	Bernie Claus (YY)
	BCIT Ecological Restoration Program	Formed student chapter of the Society for Ecological Restoration to facilitate collaboration for restoration projects	Burnaby	Charlotte Adamson (WW)
5. LAND SECUREMENT AND RESTORATION				
Local/regional gov	Metro Vancouver Parks	Land securement and wetland awareness. Ability to manage wetlands with non-profit groups	Lower Mainland	David Sheffield (ZZ) (AAA)
	Metro Vancouver Parks	Facilitate environmental stewardship projects with volunteers and community groups	Lower Mainland	Brian Titaro (GGG)
	District of North Vancouver	Coordinate volunteer groups into wetland work. Coordination and awareness is a big part	North Van	Graham Knell (DDD)
NP	Langley Field Naturalists	Establish vernal pond to increase frog and salamander reproductive	Langley	Bob Puls (BBB)
Consl.	Green Admiral	Working to ensure restored estuaries remain in a restored state	North Shore	Alards-Tomalin (FFF) Julia
Academia	Trinity Western University	<i>General statement:</i> involved with restoration and research projects	Langley	Melissa Oakes (CCC)
	BCIT Ecological Restoration Program	Various project proposals in Lower Mainland. Eg. Investigating different ways to manage invasive plants in restored wetlands in Cobble Hill	Burnaby	Anne Fisher (III), Sarah Thomasen (EEE), Elise Mackie (KKK)
	KPU Urban Ecosystems Program	Research project to restore stream on campus	Langley	Martin Leung (JJJ)
		Get Roberts Bank into RAMSAR	Delta	HHH)
6. COORDINATION AND CAPACITY				
Gov	Environment Canada	Support partnerships for the governance and conservation of ecosystems		Ian Rogalski (MMM)
Acad	KPU Urban Ecosystems Program	KPU established new degree program Urban Ecosystems. Planning institute for wetland studies. Plan to daylight small creek under parking lot on campus.	Langley	Kathy Dunster (RRR)
Non-profit	Evergreen BC	Gain support to work together with local gov't and stewardship groups to address goals	Lower Mainland	Dana McDonald (OOO)
	SCCP	Information and awareness about species and habitat conservation		Lovena Morton (PPP)
	BC Swallows Conservation Project	Swallow conservation	Across BC	Greg Ferguson (QQQ)

		Community engagement		(NNN)
WILDCARD- may fit best in multiple categories				
FN	Tsawwassen First Nations	Link First Nations to species of concern in their communities	Tsawwassen	Nicci Bergunder (CCCC)
Non-profit	Port Moody Ecological Society	Outreach events, work with community and ngo's for invasive plant pulls, tree planting, habitat restoration	Port Moody	Brian Wormald (TTT)
	Ducks Unlimited Canada	<i>General statement:</i> Stats on wetland loss/increases. Secure/restore land		(UUU)
	Friends of Semiahmoo Bay Society	Training workshops, school programs, brochures, events, and restoration projects	White Rock	Marg Cuthbert (VVV)
	BC Nature	<i>General statement:</i> Local naturalists offer wealth of knowledge of their area.		Peter Ballin (XXX)
	Fraser Valley Watershed Coalition	Salmon habitat and enhancement projects, education about healthy watersheds, coordinate multi-year/multi partner projects, wetland mapping	Fraser Valley	Natashia Cox (YYY)
	Fraser Valley Conservancy	Restore wetlands, promote awareness, partner with other local groups and local gov't to assist with coordinating wetland projects, collect mapping and survey data.	Fraser Valley	BBBB)
		Return Brydon Lagoon back to health by mid-2015	Langley	(SSS)
Acad		Student project to re-start nest box program	Squamish Estuary	(ZZZ)

Breakout Activity Summary

In the afternoon, the breakout activity allowed participants to learn more about a certain topic and ask the presenters questions. Participants divided themselves into the following groups: 1) academic wetland hub, 2) restoration hub, 3) advocacy and protection, 4) communication hub, and 5) funding opportunities. Notes were taken on flip chart paper and the transcription can be found in Appendix 6.

Academia - Should there be a wetland hub research group in the Lower Mainland?

- The group came to the agreement that a hub or group would be beneficial. The main purposes of such a hub would be to: facilitate communication between academic institutions, as well as outside the realm of academia; gather data on wetlands and related research so as to not repeat efforts and be able to identify gaps; connect academic research to the needs of the community, in relation to wetlands; and to share past and ongoing wetland projects. The hub would be centered in the Lower Mainland and have a board with members from each lower mainland and Island schools to maximize results while minimizing workload on a single person/institution.
Note: Needs a lead coordinator

Restoration Network- Networking around restoration in the Lower Mainland

- A restoration network would be useful for sharing projects, accessing funds, and even sharing tools. The group highlighted several local and current initiatives that could feed into the network such as the Green Team and South Coast Conservation Program. The network could also be used to connect academics and consultant to build on knowledge base. The group had a hard time deciding who would take the lead, but BCIT students stepped up and offered to take lead through the student's regional chapter of the Society of Ecological Restoration.
serbcit@gmail.com . A resource recommended during the discussion was Fostering Sustainable Behavior by Doug McKenzie.
- Another point the group discussed was the need to connect local stewardship groups with private consulting companies to increase capacity in the form of *pro-bono* work (surveys, etc...) to allow stewardship groups to move forward on projects. Members of consulting groups (Hemmera) have expressed an interest in giving back to the community in this capacity.

Advocacy/ Protection- How to be better advocates for wetlands in our region

- Discussion about improving legislation and regulations and reiterating the needs to request more from provincial and local government. Concerns with the current structure of regulations not covering watershed scale development. Government at various levels, need to have stronger regulations and need to implement their policies better (enforcement). There needs to be a better way to communicate the need to advocate these improvements. Along with targeting government, groups need to target the general public to get broader support for wetland conservation and protection. An example that worked in the past was Burns Bog that advocated internationally raising the profile of wetlands. Using easy, simple language and emphasizing "how does something impact me?" is important when advocating to government and the public. For better advocacy and protection, communicators need to identify and emphasize the value of wetlands and industry and governments need to better treat them as

infrastructure. Focus on garnering support from the public who are willing to take in more information and environmental knowledge as this is where greatest gains can be made for public awareness/support and behavioral/attitudinal changes.

- Key strategies: make message relational, language simple and accessible, consider the behavioral changes as a measure of effectiveness, and connect with youth as they are the ones responsible for the future.

Communication Hub- Suggestions on how to increase capacity for communication within groups

- A communication hub would be beneficial because there are so many groups in the Lower Mainland and there are too many “tools” (blogs, Facebook, Twitter, newsletters). The group visualized the hub as a website that is just for groups in the Lower Mainland. The ideal hub would be able to have links to all of the group’s websites, project sharing, events, volunteers, and searches for specific areas. The group addressed some challenges such as who would run this hub, how to keep it from being too political, and how inclusive it should be. There was also discussion on how it is not good to divide into too specific of groups such as just a wetland network, stream network, or invasive network because there is overlap. A “hub” might work best in smaller communities.
- The group also discussed tips for better communication. 1) Face to face communication is always best, like at this workshop. 2) Websites need to be clear, updated regularly, and be interesting. Some groups have success with newsletters, while others say twitter is best because it is to the point and reaches a broader audience. 3) Build good relationships with media and reporters. 4) Take advantage of social media, and take classes if you aren’t experienced.

Summary of Emerging Themes/Opportunities/Gaps

As you can imagine, with 107 people in the room, a lot of dialogue occurred throughout the day. We tried to synthesize the key themes/opportunities/gaps that were identified by the participants that should be pursued to further wetland conservation in the Lower Mainland. To accomplish this, we sifted through some of the survey questions we asked the participants throughout the day. We found opportunities for information sharing and collaboration was important to participants as a stated objective of why they attended the workshop; it was also considered a key next step for advancing wetland conservation in the Lower Mainland. Other areas that were highlighted include enhancing political will and public engagement. Although opinion was divisive among the participants regarding the need for stronger regulatory tools (as some participants felt there were sufficient regulatory tools but they were not being fully exercised), the strengthening of regulatory tools was identified as an area that may require effort moving forward (or clearer messaging on what current regulations exist that can safeguard wetlands and a review of their effectiveness). Finally, the provision of additional support to local government staff was considered an important area to invest resources.

Below are the associated questions we based the above assessment on.

- a) "What are your main goals of attending today's workshop?" (Appendix 3-pre-questionnaire)

Wetland knowledge and information	36%
Networking opportunities	29%
Collaboration and partnership opportunities	13%
Learn about current wetland projects	13%

- b) "What do you see being the next step in protecting wetlands in the Lower Mainland?" (Appendix 7-post-questionnaire)

More communication and collaboration among groups	28%
Political awareness	21%
Increase public awareness	21%
Implement and enforce existing policy/regulations	13%

- c) "If you have 10 resource units, where would you allocate the needs for conserving wetlands?" (Appendix 4 and page 10)

Public awareness	18%
Engaged council	14%
Regulatory tools	11%
Staff	11%

Outcomes from Workshop

The World Wetland Days Workshop had a lot of positive feedback. Based on the evaluations at the end of the day, 82% (n=51) of the participants plan to take action on what they learned. Overall, this workshop was successful in accomplishing the main outcomes which were:

1. **Networking and collaboration:** Prior to the workshop, many participants noted that networking was one of their goals of attending the workshop. In the post-questionnaire, 78% (n=51) said that they networked and many of these responses provided specific examples of connections and plans to collaborate in the future, (see Appendix 7).
2. **Bridging the gap:** One of our main goals of the day was finding opportunities to support one another and building bridges between various stakeholders. We focused on non-government and local government connections through the speaker's sessions. We also had an opportunity to explore a possibility of an academic hub during the breakout sessions.
3. **Knowledge exchange:** In the pre-questionnaire, participants were asked what they wanted to get out of the workshop and 36% said they wanted to learn more about wetlands conservation opportunities and general information. By the end of the day, the post-questionnaire highlighted that 86% (n=51) gained insight into barriers and opportunities for wetland protection/conservation.

Next workshop: Almost immediately after the workshop, we were asked if we were going to make this an annual event on World Wetlands Day, and 86% (n=51) said they would attend similar workshops in the future. We are exploring options to carry on these conversations next year, as well as supporting smaller workshops or meetings where possible. When originally planning this workshop, we were targeting 60 participants, but in the end, we brought in 107. This was the largest workshop the BCWF Wetlands Education Program hosted. There were some challenges associated with accommodating such a large group and the recommendations will help us prepare for next year. Suggestions for future workshops were to allow for more networking time, include senior level government or elected officials in room, and restructure the breakout group discussions. Further details available in Appendix 7-question 5.

Appendix 1- Agenda

The Future of Wetlands in the Lower Mainland: A workshop to strengthen collaboration among stakeholders



Target audience: Municipal and regional governments, local stewardship groups, researchers

Date: Monday February 2nd, 2015 (World Wetlands Day)

Time: 9:30 am to 3:30 pm

Location: Burnaby Lake Rowing Pavilion. 6871 Roberts Street, Burnaby, BC

Outline: This workshop will explore frameworks that support community partnerships among multiple stakeholders to conserve and restore wetlands in the Lower Mainland. Partnerships among municipal and regional governments, non-profit stewardship groups, and research groups are important to build relationships and enhance project opportunities in communities.

9:15 – 9:30	Sign in – Coffee/Muffins	
9:30 – 10:00	Neil Fletcher Wetland coordinator, BC Wildlife Federation and Dan Buffett Head of conservation programs, Ducks Unlimited Canada	Introduction and overview of the workshop and a contextual overview of state of wetlands in Lower Mainland.
10:00 – 10:45	Lee-Anne Walker Executive director, Elk River Alliance	Five enabling conditions for government and non-government relations towards advancing watershed conservation initiatives.
10:45 – 11:00	<i>Break</i>	
11:00 – 11:30	Dana McDonald Manager Green Space Programs, Evergreen BC	Lessons learned from public engagement and best practices in watershed stewardship.
11:30 – 12:00	Pamela Zevit Coordinator, South Coast Conservation Program	The role of the South Coast Conservation Program and recent collaboration with local governments to enhance capacity to protect and/or conserve species and ecosystems at risk.
12:00 – 12:30	<i>Lunch</i>	

12:30 – 12:45	Ivy Whitehorne, Coordinator of National Conservation Fund, Canadian Wildlife Service	The National Wetland Conservation Fund and opportunities to access \$50million over 5 years (Lower Mainland is a priority region.)
12:45 – 1:30	Panel discussion	What are the most effective actions that non- government and the public can do to support initiatives of local government? What are the different avenues available?
1:30 – 1:45	<i>Break</i>	
1:45 – 3:15	Discussion	How can we strengthen our collaborations to move towards more effective conservation and protection of wetlands? What are the next steps?
3:15 – 3:30	Final thoughts and workshop evaluation	

This workshop would not be possible without the generous financial support of the following contributors:



Environment
Canada

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Canada

Appendix 2- List of Attendees

<u>Name</u>	<u>Organization/ job title</u>
Andrew Baylis	A Rocha Canada, Conservation Biologist
Matt Humphrey	A Rocha Canada, Stewardship Coordinator - Little Campbell River
Roger Emsley	Against Port Expansion, Executive Director
Chris Lee	AquaTerra Environmental Ltd., Principal / Senior Biologist
Byron Kirkham	AquaTerra Environmental Ltd., Partner / Senior Biologist
Olga Fedianina	AquaTerra Environmental Ltd., Environmental Technician
Bill Wilde	Arbor Vitae Tree Consultants, Owner/operator
Cynthia Ederis	Baseline enviro consulting Ltd., Biologist
Jude Grass	BC Nature, Lower Mainland Regional Coordinator
Peter Ballin	BC Nature, Wetland rep, conservation committee
Larri Woodrow	BC Wildlife Federation, Retired
Elise Mackie	BCIT, Student
Charlotte Adamson	BCIT, Student
Julian Gan	BCIT, Student
Kiirsti Owen	BCIT, Student
Kimi Balsillie	BCIT, Student- Ecological Restoration
Lota Colobong	BCIT, Student
Rebecca McMurray	BCIT, Student- Ecological Restoration
Sarah Thomasen	BCIT, Aquatic Ecologist
Stephen Bonetti	BCIT, Student- Ecological Restoration
Vanessa Isnardy	BCIT, Student- Ecological Restoration
Hannah Nieman	BCIT, Student- Ecological Restoration
Sasha Gale	BCIT, Student
Anne Fisher	BCIT, Student- Ecological Restoration
Berni Claus	Bowen Island Nature Club
Elaine Golds	Burke Mtn. Naturalists, Conservation Chair
Marg Anderson	Burnaby Lake Park Assoc., Volunteer
Ann Green	Burnaby Lake Park Association, Volunteer Co-ordinator
Maureen Vo	Burns Bog Conservation Organization, Education Coordinator
Eliza Olson	Burns Bog Conservation Society, President
Gerard Cowan	Burns Bog Conservation Society, Research and Communications Assistant
Walter Davyduke	Burns Bog Conservation Society, Director
Bev Bly	Burns Bog Conservation Society, Operations & Development Manager
Paul Cipywnyk	Cipko Consulting Ltd., President
Cliff Caprani	Citizens Against Port Expansion, Board Member
Steve Clegg	City of Chilliwack, Environmental Services Specialist
Shannon Wagner	City of Coquitlam, Parks Resource Technician
Hailey Steiger-Tang	City of Richmond, Environmental Coordinator

Ken Crosby	City of Surrey, Natural Area Technician
Liana Ayach	City of Surrey, Environmental Technologist
Shirley Jones	City of Surrey, Stewardship Assistant Volunteer
Jeff Ross	City of White Rock Parks Labourer
Deanna MacTavish	Coastal Painted Turtle Project, Field Biologist & Habitat Restoration Specialist
Rob Knight	Community Mapping Network, Director
Kyle Empringham	David Suzuki Foundation, Public Engagement Specialist
Graham Knell	District North Vancouver, Trail & Habitat Co-ordinator
Tiffany Bentley	District of West Vancouver, Parks Planning Assistant
Michael McPhee	Douglas College, Faculty- Department of Geography
Tara Matthews	Echo Ecological Habitat, Conservation Specialist
Ian Rogalski	Environment Canada, Senior Ecosystem Analyst
Joanne Day	Fisheries and Oceans, Biologist
Joanne Neilson	Fraser Valley Conservancy, Executive Director
Aleesha Switzer	Fraser Valley Conservancy, Conservation Intern
Natashia Cox	Fraser Valley Watersheds Coalition, Project Manager
Keith Sorenson	Friends of Semiahmoo Bay Society, Volunteer
Margaret Cuthbert	Friends of Semiahmoo Bay Society, President
Julia Alards-Tomalin	Green Admiral Restoration, Technician
Lyda Salatian	Green Teams of Canada, Founder and Executive Director
Jim Roberts	Hemmera, Project Biologist
Renae Mackas	Hemmera/ WildResearch, Biologist (Hemmera)/ Director (WildResearch)
Ken Summers	KS Biological Services, Biologist
Marie Pudlas	Kwantlen Polytechnic University, Student- Urban Ecosystems
Martin Leung	Kwantlen Polytechnic University, Student- Urban Ecosystems
Tom Peterson	Kwantlen Polytechnic University, Student- Urban Ecosystems
Katherine Dunster	Kwantlen Polytechnic University, Head- Urban Ecosystems Program
Kristen Hudson	Kwantlen Polytechnic University, Student- Urban Ecosystems
Robert Puls	Langley Field Naturalists, Retired
Rhys Griffiths	Langley Field Naturalists, Executive member
Erin Enns	LEPS, Water Conservation Program Coordinator
Sarah Atherton	LEPS, Executive Director
David Riley	Little Campbell Watershed Society, Director
Freida Schade	Metro Vancouver, Division Manager
Markus Merkens	Metro Vancouver, Natural Resource Management Specialist
David Sheffield	Metro Vancouver, Park Planner
Janice Jarvis	Metro Vancouver Regional Parks, Natural Resource Management Specialist
Paul Berlinguette	North Shore Wetland Partners, President
Jeremy McCall	Outdoor Recreation Council of BC, Executive Director
ZoAnn Morten	Pacific Streamkeepers Federation, Staff
Dave Bennie	Port Moody Ecological Society, Director
Amy Burns	RSPB, Nature reserve warden

Brian Wormald	Self Employed, IT Consultant
David Cook	self-employed, Biologist
Robyn Nitychoruk	Self-employed, Biologist
Shaun Hollingsworth	Seymour Salmonid Society, President
Lovena Morton	South Coast Conservation Program, Wildlife Habitat Protection Intern
Edith Tobe	Squamish River Watershed Society, Executive Director
Brian Titaro	Stanley Park Ecology Society, Conservation Technician
Robyn Worcester	Stanley Park Ecology Society, Conservation Programs Manager
Alan James	Stoney Creek Environment Committee, Member-at-Large - Education
Greg Ferguson	Suncity Environmental Services, Biologist
Nicci Bergunder	TFN / Matcon Civil Joint Venture, First Nation Liaison
Erin Clement	The Corporation of Delta, Environmental Officer
Sarah Howie	The Corporation of Delta, Urban Environmental Designer
Melissa Chaun	Tri-City Green Council, Ecologist/Sustainability Planner
Melissa Oakes	TWU, Restoration and Research Coordinator
Jessica Jin	UBC, Student
Joanne Breckenridge	UBC, PhD Student
Alanna Strangway	University of the Fraser Valley, Student
Jonathan Wong	Vancouver Aquarium, Biologist
Otto Langer	VAPOR / Fraser River Gravel Stewardship Comm (FRGSC), Fisheries Biologist / Aquatic Ecologist
Bruce McArthur	West Vancouver Old Growth Conservancy, North Shore Wetland Partners, NGO Director
Larry Surkan	Western Landscapers LTD, Registered environmental professional
Sofi Hindmarch	Wildlife Biologist
Jennifer Brown	Volunteer
Paul Langley	Retired
Theresa Coles	Volunteer
Irene Mencke	Environmental Scientist

Appendix 3- Pre Questionnaire

Name	Company	Job Title	What are your main goals in attending today's workshop?	If you're involved in wetland conservation, can you briefly describe your role or project(s) and geographic boundaries/jurisdiction (point form is fine)	If relevant, what are some challenges you are facing in conserving wetlands?	Where do you need support from other individuals/groups/agencies to help you accomplish your wetland conservation targets?	As a person/organization/agency, what can you offer to others to support wetlands conservation?
Andrew Baylis	A Rocha Canada	Conservation Biologist	Networking	Wetland restoration and species monitoring in the Little Campbell River watershed		Advice about wetland building/restoration, amphibian conservation in southwestern BC	Collaboration and partnerships, volunteer support
Roger Emsley	Against Port Expansion	Executive Director	Understanding ways to get more effective collaboration amongst individual groups	Our group is opposed to Port Metro Vancouver container terminal expansion on Roberts Bank	Raising the profile, gaining support from other groups, getting people out to protest	Publicizing the project, garnering support, assistance in opposing the project and protests	Our experience in dealing with Port Metro Vancouver
Chris Lee	AquaTerra Environmental Ltd.	Principal / Senior Biologist	update knowledge of wetland conservation and challenges.	Beaver Lake (Stanley Park), Hale Road Wetland, etc.		Funding partners	Knowledge of wetland conservation challenges, appropriate data collection, and realistic restoration targets. Species-at-

							risk expertise, invasive species management, First Nations consultation and meaningful involvement incl. capacity building).
Byron Kirkham	AquaTerra Environmental Ltd.	Partner / Senior Biologist	update knowledge of wetland conservation and challenges.	Beaver Lake (Stanley Park), Hale Road Wetland, etc.		Funding partners	Knowledge of wetland conservation challenges, appropriate data collection, and realistic restoration targets. Species-at-risk expertise, invasive species management, First Nations consultation and meaningful involvement incl. capacity building).
Olga Fedianina	AquaTerra Environmental Ltd.	Environmental Technician	update knowledge of wetland conservation and challenges.	Beaver Lake (Stanley Park), Hale Road wetland, etc.		Funding partners	Knowledge of wetland conservation challenges, appropriate data collection, and realistic restoration targets. Species-at-risk expertise, invasive species management, First Nations consultation

							and meaningful involvement incl. capacity building).
Cynthia Ederis	Baseline enviro consultin g ltd.	Biologist	Continuing education and networking	Burnaby		Government, NGO collaboration	Project management, community outreach
Jude Grass	BC Nature	Lower Mainland Regional Coordinator	.	Also involved with Langley Field Naturalists and member of the Semiahmoo Fish and Game Club and on their board		.	.
Peter Ballin	BC Nature	Wetland rep, conservation committee	information; links for Naturalists' clubs of BC	w. painted turtle research east of Kamloops		links, information	links
Larri Woodrow	BC Wildlife Federation	Retired	to learn from others & networking	Superport/foreshore , US Powder River coal, Toxic Waste facility location Chwk, Salmon River Langley, Yorkson Creek Langley, Regs for riparian areas/property development/applica tion, watchdog fill sites unpermitted, lobbyist ALR removal/Wall	Premier & BCL MLA policy, local council, Fed Conservatives, uninformed public	My fellow members BCWF, local citizens	my time in retirement

				Property			
Rebecca McMurra y	BCIT	Student-Ecological Restoration	Networking and expanding my knowledge on wetland restoration	Student learning ecological restoration, built wetland in logan lake this year	The use of non-native seed mixes	most likely I need help getting a paid position	volunteer hours
Sarah Thomason	BCIT	Aquatic Ecologist	Learn about wetlands in the lower mainland	- worked as Aquatic Ecologist in Ontario, now taking ecological restoration at BCIT		not sure	knowledge of many ecological processes and species that live in wetlands, familiar with many impacts to wetlands and some restoration techniques
Elise Mackie	BCIT	Student	Learn more about BC wetland conservation	N/A		N/A	N/A
Sasha Gale	BCIT	Student	To hear about local projects and possible job opportunities.	One of three people working on a term project on (enhancing) Lynn Creek Estuary		I am interested in hearing what has and hasn't worked on different projects and learning from others	Hard work from a motivated and passionate student that's graduating in May
Vanessa Isnardy	BCIT	Student-Ecological Restoration	Learn more about wetland restoration. Networking.	Student study	Employment opportunities, internships	Engagement, work opportunities	Training and education, passion and interest
Stephen Bonetti	BCIT	Student-Ecological Restoration	To gain a deeper understanding of wetlands in the lower mainland, and to look at possible restoration options	currently working on a project proposal to design a wetland		funding, traditional knowledge of the sight, culturally significant plants, species at risk	manual labor, experience, time
Kimi	BCIT	Student-	Get connected with	- Applied Researc		Guidance,	Experience from

Balsillie		Ecological Restoration	others	Project component - Logan Lake Wetland Construction		recommendations for building a wetland in an urban area and upland of a stream that has once flooded an area	building a wetland and ecological restoration components
Julian Gan	BCIT	Student	To learn more about opportunities and techniques to conserve and restore wetlands in the Lower Mainland	Project leader, Beaver Creek Bog Restoration, Stanley Park; Restorationist, Meadow Creek Golf Course, Logan Lake.	Finding available land, convincing property owners of the benefits of wetland conservation/creation/enhancement	Acquiring letters of support, volunteer labour	Experience with groundwater wetland restoration, knowledge of appropriate plant species, 2 years of academic training
Lota Colobong	BCIT	Student	to avail of my time helping preserving our environment	not yet involved	- - - - -	experienced people to support you and more training	my time and finances
Anne Fisher	BCIT- Ecological Restoration	Student	To learn more about how partnerships can be developed to support wetland conservation and restoration	Currently working on a wetland restoration project in the Cowichan Valley		Finding funding	Volunteer labour
Berni Claus	Bowen Island Nature Club	.	1) Learn about recent developments, status and programs related to wetlands in the lower mainland 2) Networking	In past years, I managed large federal environmental reviews where industrial projects could impact wetlands.		.	.
Marg Anderson	Burnaby Lake Park Assoc.	volunteer	to learn more about successional restoration on wetland like Burnaby	volunteer with Burnaby Lake Park Assoc.	encroaching urbanization and impacts of pollutants from urban runoff	getting information out to general public who have limited knowledge of	Burnaby Lake Park Assoc runs two very unique programs within the park, a

			Lake			environmental issues and concerns and teaching the general masses how small steps can help	nestbox program and a weedbuster program that has been ongoing for 10 years. We have invested countless hours on restoration and can offer support and guidance to others .
Ann Green	Burnaby Lake Park Association	Volunteer Co-ordinator	To find out who is working on wetlands in the LM and get an overview	The BLPA is a non-profit org. providing environmental stewardship activities around Burnaby Lake. I organize the events.	Urbanization and population pressure	I'm hoping that this workshop will help me figure out some of the possibilities	Some of our experience and things learned with working with the public with volunteer stewardship activities
Maureen Vo	Burns Bog Conservation Organization	Education Coordinator	Learning more about the state of wetlands and what can be done to help conserve	I am the Education Coordinator at Burns Bog Conservation Society and help educate the public about peatlands and how to conserve.	spreading the word	Funders, sponsors, and partners to help develop programs and spread the word	Education
Eliza Olson	Burns Bog Conservation Society	President	conservation of Burns Bog and other peatlands through education	My role is that of the President & Volunteer Executive Director. Projects: field trips, summer day camps, building of boardwalks in the Delta Nature Reserve on the edge of Burns Bog, public	Lack of understanding by governments about their importance and their failure to take action to protect them. Lack of funding, especially lack of funders understanding how	Yes, especially in the campaign against "conflict palm oil" and the MK Delta development proposal	Ways to fundraise, information about peatlands & their role in climate change.

				education through awareness campaigns	important peatlands are to climate change, wildlife, lack of time to collaborat		
Walter Davyduke	Burns Bog Conservation Society	Director	Learn more about wetlands & connect with other like-minded people	conservation of Burns Bog and other peatlands through education	Lack of funding to raise awareness about the importance of peatlands and other wetlands here and worldwide.	collaboration and funding	knowledge about peatlands
Gerard Cowan	Burns Bog Conservation Society	Research and Communications Assistant	To learn more about wetland conservation	Communications assistant at the Burns Bog Conservation Society. We campaign to raise awareness about the importance of Burns Bog as an ecosystem.		More support from the municipal level would be good.	We have 26+ years of experience in education and raising awareness about the importance of Burns Bog and a good list of contacts. Personally, I have done some research into wetlands and ecosystem services.
Paul Cipywnyk	Cipko Consulting Ltd.	President	Learning, networking	President of Byrne Creek Streamkeepers Society in SE Burnaby	Development	Be nice if DFO and EC still had a presence on the ground ;-)	Local knowledge and contacts. Also wider provincial/federal contacts as a board member of SEHAB
Cliff Caprani	Citizens Against Port Expansion	Board Member	networking	habitat banking opponent		not sure	not sure
Shannon Wagner	City of Coquitla	Parks Resource	Learn what others are doing and start	City of Coquitlam. I work on invasive	Invasive species, capacity, land	land aquisition, community interest,	volunteer opportunities, park

	m	Technician	forming some partnerships	plant management and ecological restoration projects in our parks and natural areas.	ownership, drastically altered landscapes	capacity	land to complete studies/research on, habitat for some at-risk species
Shirley Jones	City of Surrey	Stewardship Assistant Volunteer	Education	wildlife protection, tree planting, invasive plant removal		volunteers	interpreter
Liana Ayach	City of Surrey	Environmental Technologist	learning about new projects in the region and discovering potential project collaborations	occasionally get sites that require small wetland restoration works or opportunities for new installations	finding suitable sites where they are in need	finding the sites to work on	I can offer students in Surrey to work on wetland development projects
Ken Crosby	City of Surrey	Natural Area Technician	To learn what other agencies/organizations are doing in wetland management and restoration.	Lead on restoration projects within and adjacent to wetlands in Surrey park natural areas.	We are in the early stages of developing a wetland management plan.	It would be beneficial to hear what other agencies are doing and see what management plans they have.	Volunteer opportunities and partnerships for restoration in Surrey parks.
Jeff Ross	City of White Rock	Parks Labourer	To learn more about the Lower Mainland wetlands and how to protect and enhance them.	Removing invasive species at Blackie Spit		More information on the wetland conservation groups.	Horticulture/Plant identification knowledge
Deanna MacTavish	Coastal Painted Turtle Project	Field Biologist & Habitat Restoration Specialist	hear latest info from those carrying out wetland restoration in the LM.	Assessing turtle populations & habitat usage. Invasive species removal.		sourcing materials,	info on wetland microhabitat types preferred by turtles
Rob Knight	Community	Director	Seeking ways CMN can assist with	BC Wetland Atlas for BC wide wetland		resources to assess eco function of	web mapping and information/data

	Mapping Network		conserving Lower Mainland wetlands	inventory in collaboration with BCWF & Wetlandkeepers		FREMP/BIEAP habitat compensation sites (1968 to present)	management resources of CMN
Kyle Empringham	David Suzuki Foundation	Public Engagement Specialist	Connecting the wetlands workshop to our natural capital work	Not involved in conservation.		Information	Natural capital evaluations in the Lower Mainland.
Graham Knell	District North Vancouver	Trail & Habitat Co-ordinator	to be further enlightened on Wetland protection, in the light of Global warming.	Yes I work to protect and restore wetlands in the District of North Vancouver	Funds and political will	Pacific Salmon Foundation has been very helpful.	Trucks, tools, bags and the removal of Invasive Species
Michael McPhee	Douglas College	Faculty-Department of Geography	To learn about wetland protection, education and visitor opportunities to wetlands	I did one of the first projects in the Lower Mainland on the status and protection of wetlands. It would be interesting to see if this has been updated.		N/A	Education and undertake projects
Tara Matthews	Echo Ecological	Habitat Conservation Specialist	Networking and learning about what other wetland projects are happening in the lower mainlands	Working on restoring estuarine/wetland habitat on the north shore		funding, information	time, project collaboration, labour
Ian Rogalski	Environment Canada	Senior Ecosystem Analyst	Explore opportunities to support wetland conservation planning in the Lower Mainland	I am a potential funder of wetland conservation planning		local knowledge/expertise	funding, referral to appropriate expertise

Joanne Day	Fisheries and Oceans	Biologist	learning about other programs going on	Working with Community Involvement in the Salmon Enhancement Program, DFO		From volunteers around BC	network of projects
Joanne Neilson	Fraser Valley Conservancy	Executive Director	learn more about what other groups are doing for wetlands in the region, and hopefully how we can be more successful by working together strategically	As a land trust we own a property with a large wetland we are currently doing a feasibility study on restoring in Abbotsford BC	the impact of the urban environment on our wetland and how that limits our ability for restoration options	generally we are well supported on this issue - but we have actively sought it out	knowledge sharing about our area and willingness to work with partner organizations
Aleesha Switzer	Fraser Valley Conservancy	Conservation Intern	Networking, learning!	Field technician for Oregon Spotted frog projects and other wetland restoration projects in the Fraser Valley.		I'm the boots on the ground, so I'm not sure!	Technical skills in data collection and management.
Natashia Cox	Fraser Valley Watersheds Coalition	Project Manager	Learning about what others are doing to enhance, restore and educate about wetlands - how it relates to project design, incorporating multi-species and fish perspectives. Provide my experiences to the stakeholder, collaboration	Project feasibility coordination, small-scale enhancement work, public education (hands on opportunities) in conjunction with larger message about healthy watersheds.	Timing (stakeholders etc), surrounding infrastructure limiting restoration; conserving/enhancing to support SAR (re-introductions); Wetlands on private property.	Learning from others experiences (what factors to try, to avoid, project implementation planning- how to better engage Muni's and Stakeholders to support and/or contribute to project.	My experiences - what our organization has learned in restoration on the ground- permits, appropriate baselines, etc- and our experience navigating multi-partner driven projects.

			process. Partnerships				
Margaret Cuthbert	Friends of Semiahm oo Bay Society	President	gaining knowledge, networking	Boundary Bay watershed planting, invasive removals, marine surveys, bird surveys, eelgrass mapping, nest boxes, community and school education	funding, human disturbance, political will	funding, professional expertise	networking, experience
Jim Roberts	Hemmera	Project Biologist	Professional development (biology); assist with client-related activities (involved in wetland restoration project in Lower Mainland)	More involve in restoration than conservation (project design/permitting/m onitoring - tidal and freshwater wetlands)		na (see above)	biological expertise
Renae Mackas	Hemmera / WildRese arch	Biologist (Hemmer a)/ Director (WildRese arch)	learn more about wetland conservation efforts in the lower mainland, and hope to get an idea of if there are opportunities to get involved as part of citizen science group (WildResearch) or environmental consultant (Hemmera)	Have had minor role in environmental monitoring for projects that have built ephemeral ponds and/or marsh habitat as part of habitat compensation efforts		for WildResearch, would like to look into the possibility of collaborating with groups that do this sort of work. At this point, we may not have our own "targets", but likely would have volunteers who would like to participate and learn more	WildResearch has many keen volunteers who could likely help out with labour or monitoring associated with wetland conservatoin
Katherine Dunster	Kwantlen Polytchni	Head, Urban	network, find out funding opps, let	KPU - 4 campuses south of the Fraser	funding	funding	trained students, research, setting up

	c University	Ecosystems Program	people know KPU plans				an Institute for Wetland Studies
Marie Pudlas	Kwantlen Polytechnic University	Student, Urban Ecosystems	network, find out job opps	KPU - Langley Campus	funding	funding, job opps	training
Martin Leung	Kwantlen Polytechnic University	Student, Urban Ecosystems	network, find out job opps	KPU - Langley Campus	funding	funding, job opps	training
Tom Peterson	Kwantlen Polytechnic University	Student, Urban Ecosystems	network, find out job opps	KPU - Langley Campus	funding	funding, job opps	training
Kristen Hudson	Kwantlen Polytechnic University	Student, Urban Ecosystems	network, find out job opps	KPU - Langley Campus	funding	funding, job opps	training
Rhys Griffiths	Langley Field Naturalists	Executive member	Seeking ideas to prevent another major fish kill in our wildlife sanctuary, Brydon Lagoon in Langley	Conservation representative on Field Naturalists Society. Member of Langley City Parks and Environmental Advisory Committee			
Robert Puls	Langley Field Naturalists	Retired	Learn about wetland conservation	Forslund/Watson Wildlife Area, Langley	Developing new pond	Need provincial permission and financial support	LFN educates members
Erin Enns	LEPS	Water Conservation Program	Discussing wetlands in the Lower Mainland and connecting with	water quality program coordinator - surface water physical and	Recognizing wetlands and encouraging citizens and farmers to	Project funding and recognizing the need to protect them.	Work partner and hands on support to complete wetland projects.

		Coordinator	other potential partners	chemical parameters	protect them.		
Sarah Atherton	LEPS	Executive Director	conversation about wetlands	Township of Langley/City of Langley: riparian restoration; wetland enhancement		funding	information; volunteers; manpower
David Riley	Little Campbell Watershed Society	Director	gaining knowledge, networking	Little Campbell River watershed, parts of Boundary Bay	political will, development, funding, human disturbance	funding, expertise	experience, networking
Markus Merkens	Metro Vancouver	Natural Resource Management Specialist	learning about other peoples' work in wetland restoration, learning about funding opportunities	regional park management, implementation of management plan for the Burns Bog Ecological Conservancy Area	funding monitoring and research, reducing impact of development outside of conservation areas.	information on what is working and what is not working	staff time and insight into peatland restoration efforts
Freida Schade	Metro Vancouver	Division Manager	Unknown	Work for GVRD Regional Parks Division		Yes	Specialize in Park Planning
David Sheffield	Metro Vancouver	Park Planner	Unknown	Work for GVRD Regional Parks Division		Yes	Specialize in Park Planning
Irene Mencke	n/a	Environmental Scientist	To learn about more about wetlands and wetland conservation, how I can become more involved, to meet and engage with other people attending, and to have a fun day out.	n/a		n/a	volunteer time

Paul Berlinguette	North Shore Wetland Partners	President	networking & finding out what your up to	mostly northshore invasives bio physical inventory board walk through wetlands education	lack of desire from public & those in power	we are not used to getting much help from others we just keep doing what we do though it would be good if we stand together on important shared visions	20yrs of volunteering we share contacts & experiences with those we feel are worthy of our time
Jeremy McCall	Outdoor Recreation Council of BC	Executive Director	Exploring relationship between impact of changes in wetlands on BC's endangered rivers. The Outdoor Recreation Council publishes its Endangered Rivers list in April each year.	Publisher of BC's Endangered Rivers list	Threats to the Bert Brink Wildlife Management Area from the planned Aevitas hazardous waste plant in Chilliwack	See above	Endangered Rivers List
ZoAnn Morten	Pacific Streamkeepers Federation	Staff	Ideas for policy for protection of waterways	province wide - work with a variety of groups to promote stream and wetland care (insurance to monitoring protocols)	showing their full value when they aren't functioning at 100% at this time	I love the support networks we have, lots of communication opportunities. Easy to get overwhelmed but groups are learning to focus as they find their own groups strengths	(insurance to monitoring protocols)
Dave Bennie	Port Moody Ecological Society	Director	Working on building a wet land	For educational programs at Noons creek hatchery		volunteers	Help

Amy Burns	rspb	nature reserve warden	networking, information sharing and gain an understanding of challenges facing Canadian NGOs	manager of lowland wet grassland reserve with previous blanket bog and reedbed management experience	funding!	difference land management techniques and ways of working	UK land management practices and challenges facing UK conservation groups
Robyn Nitychoruk	Self-employed	Biologist	networking and education	grants, advice, project partnerships	biological expertise		
David Cook	self-employed	Biologist	to gain information	consultant		others	consulting
Shaun Hollingsworth	Seymour Salmonid Society	President	Networking	Estuary work		Funding and geese issues	Experience on projects
Edith Tobe	Squamish River Watershed Society	Executive Director	networking	Check out http://www.squamishwatershed.com/amphibian-wetlands.html		Not certain. Will be good to hear what challenges others are facing	Experience, knowledge, and know-how
Alan James	Stoney Creek Environment Committee	Member-at-Large - Education	Connecting with other similar groups to work on regional co-ordination	- Stoney Creek and Burnaby Mountain; - salmon habitat restoration; road salt contamination of waterways coming from Burnaby Mountain	getting volunteers	A municipal or regional streamkeeper co-ordinator	Data on Stoney Creek
Sarah Howie	The Corporation of Delta	Urban Environmental Designer	learn about current wetland conservation issues in the Lower Mainland	I am the project manager for the hydrological restoration of Burns Bog in Delta		n/a	Information about how Burns Bog was conserved by government, and how Delta and Metro Vancouver

							share the responsibility of managing Burns Bog.
Melissa Chaun	Tri-City Green Council	Ecologist/ Sustainability Planner	To get reconnected with the wetlands conservation field so I can be better equipped to help Coquitlam River Watershed Roundtable (CRWR) with incorporating riparian and wetlands conservation into its watershed plan.	Stewardship rep. on CRWR. With BIEAP-FREMP, assisted Fraser R. Discovery Centre updating its interpretive signage on wetlands conservation; provided office space for other NGOs to convene while drafting the 2013 Wetlands Conserv. declaration.	There appears to be significant fisheries focus (in-stream collection of data); want to see broader scope on data collection i.e., health of riparian and wetland areas in the Lower Coquitlam River.	Help from those who have integrated wetlands conservation in watershed planning would be ideal.	Worked in Seattle area for 10 yrs conducting delineations per US Army Corps of Engineers delineation manual; classifying wetlands per the WA State Dept. of Ecology's classification system; designing/implementing restoration + monitoring plans.
Melissa Oakes	TWU	Restoration and Research Coordinator	learn more about restoring wetlands for SAR	Salt Spring Island and Langley Area		Guidance on what has and has not worked in wetland restoration for SAR	We are collecting wetland water quality data in the Langley area and RLF surveys
Joanne Breckenridge	UBC	PhD Student	To learn about current wetland conservation priorities and efforts in the lower mainland, particularly those involving the Fraser River and Estuary	I'm studying the zooplankton of the Fraser River Estuary, from the Strait of Georgia to New Westminster. The hydrograph of the Fraser is changing and my aim is to understand how these organisms will respond to earlier	Poor baseline data	My target at this point is simply information, however, the project would benefit from funding for summer students	Unique knowledge of the Fraser River Estuary, study design skill, statistical analysis

				peak river discharge.			
Jessica Jin	UBC	Student	Learning about wetland conservation in BC	Current project: stream daylighting		Opportunities to be involved in stream/water-related projects	Skills, knowledge
Jonathan Wong	Vancouver Aquarium	Biologist	Networking	River works program k-12 education		Collaboration, online	Tech support
Otto Langer	VAPOR / Fraser River Gravel Stewardship Comm (FRGSC)	Fisheries Biologist / Aquatic Ecologist	Develop ENGO focus on the bigger environmental protection projects of the day like jet fuel in the Fraser and RBT2	-have been involved in wetlands protection for over 45 years. - Lower Fraser River area and some Interior sites. - developed No Net Loss for FR estuary, harbour environmental management plans - involved in major wetland protection projects over 45 yrs	Lack of large ENGO and F&G club involvement in major wetland protection issues like RBT2.	WWF, BCWF, Raincoast, Watershed Watch, Living Oceans, DSF, etc.	Experience in management plans like that in the past FREMP, relevant law and court work, environmental assessments, enforcement.
Bruce McArthur	West Vancouver Old Growth Conservancy, North Shore Wetland Partners	NGO Director	Education and Networking	support the identification and preservation of wetlands on North Shore Upper Lands	Education, especially thinking of wetlands as part of a system and not a stand alone entity	more collaboration between agencies, governments and NGOs	just my time
Larry Surkan	Western Landscap	Registered	Hydroecology	Certified plant ecologist ESA			

	ers LTD	environm ental professio nal					
Sofi Hindmarch	Wildlife biologist	Learn more about wetland conservation	More grassland conservation in the Lower Mainland and the Fraser Valley but these grasslands are often linked/connected to wetlands	habitat loss- residential development			outreach, awareness, I do a lot of surveys on private land and talk to land- owners about conservation/species at risk

Appendix 4- Resource Allocation Activity: Swamp Bubble Summary

**Wetland Conservation in Eastern Vancouver Island:
A workshop for municipal and regional stakeholders**

BCWF
B.C. Wildlife Federation
Wetlands Education Program

*If you had 10 resource units, where
would you allocate the needs?*

Swamp Bubbles

INFORMATION

Mapping ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Statistics & Trends ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

POLITICAL WILL

Valuation of Services ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Staff ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Engaged Council ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Public - Local Champion ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Public Awareness ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

INSTRUMENTS

Regulatory Tools ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Voluntary Tools ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Policy ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

OTHER

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Participant	INFORMATION		POLITICAL WILL					INSTRUMENTS			OTHER
	Mapping	Statistics & Trends	Valuation of services	Staff	Engaged Council	Public - Local Champion	Public Awareness	Regulatory Tools	Voluntary Tools	Policy	Other
1	1			2	3	1	1	2			
2			2	3	1	1	1	1		1	
3	2	2			1	1	1	1		2	
4						2		5		3	
5								7		2	
6		1			2	1	3	2		1	
7		1	1		3		3	2			
8	1	1		1			3	1			3
9	1	1		1			2	1		1	3
10	1	1		1	1	1	1	2			2
11							5		5		
12	1		1	3	2			3			
13	2	1		2	2		2	1			
14	1	1	1	1	1	1	1	1	1	1	
15				4	2	1		3			
16	2				4		2				2
17	5	2	3								
18				5		1	2				2
19	2	1				1	3		3		
20	2	1		1	1		2	1	2		
21	4			2	2		2				
22	2	2					4		1	1	
23							10				
24	1			2	1		2	1	1	2	
25					4	2		2	2		
26	2	3	1				1		1	2	
27	1			2	2	1	1	1			2
28		2	2		2		3			1	
29	1	1					2	1	1	1	3
30	2	1	1	1	1		2		1	1	
31			1	2	2		3	2			
32	2		2				3	3			
33				2	2	1	1	2	1	1	
34	2	2	2		3		1				
35		1	5				2	1	1		
36		3			2		1	1		3	

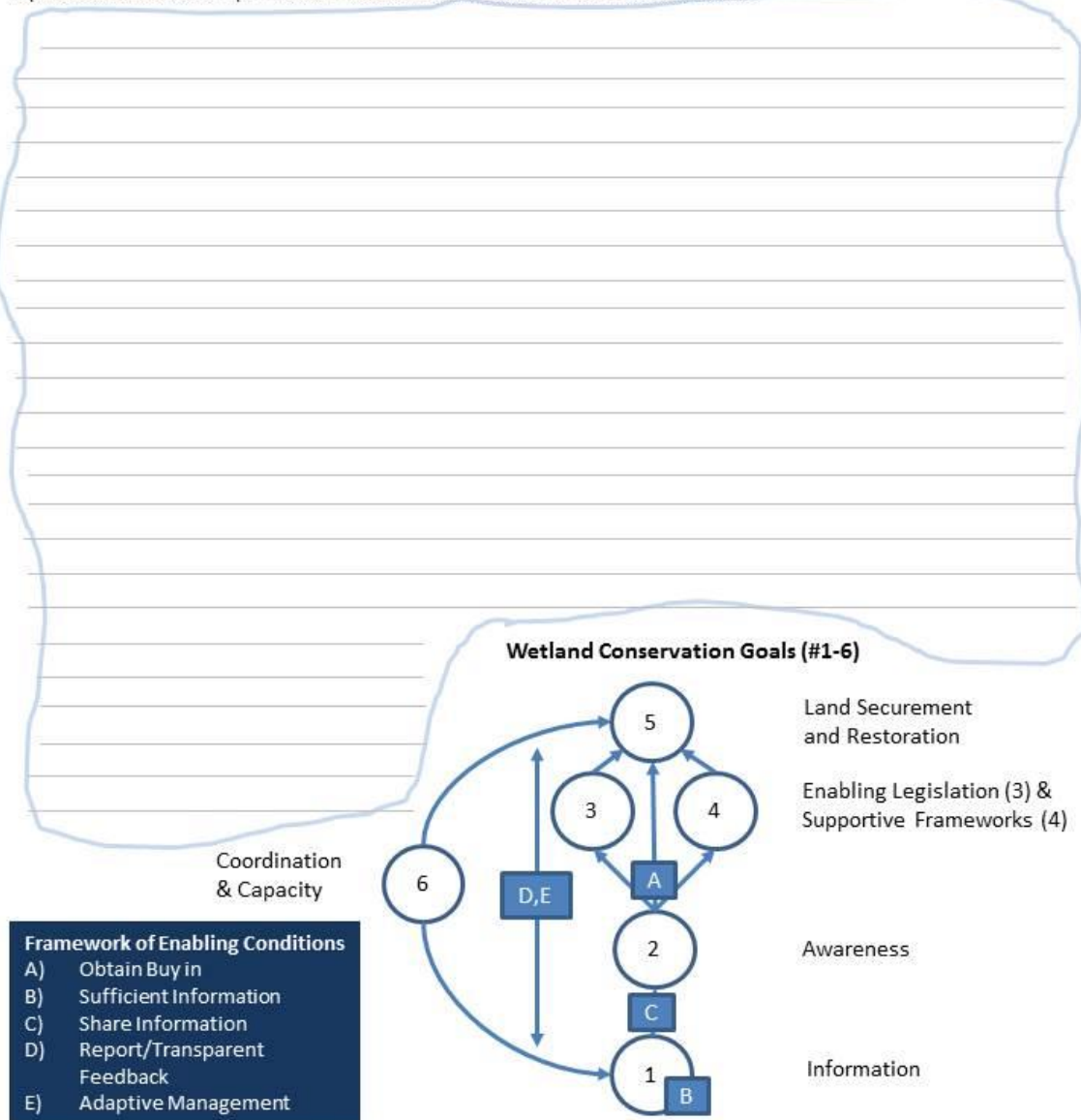
37				4	2	1	1	1			
38			1	1	1	2	1	2		2	
39	3	2	1	1	1		2				
40	1	1			1	1	2	1	1	2	
41	1	1	1	1	1		2	2	1		
42	2			2	2			4			
43	1	1	2	2	1		2			1	
44			4	4		1	1				
45	1		2	2	1	1	1	2			
46	1	1		2	2		2	2			
47	2	2		1			2	1	1	1	
48	1	2	1	1		1	2	1		1	
49		1			2	2	2	1	1	1	
50	1	1	1	1	1	2	1	1	1		
51	1	1		1	1	1	1	1	1	1	1
52	2	2			1			3	2		
53					2	2		1		1	3
54					5			5			
55		2		3			3			2	
56		1		1	3	1	3			1	
57				3	7						
58	1		1	1	3	1		1		2	
59	1	1		1		3	2			2	
60	2				1		2				5
61	2	1	1	1	1		2			2	
62		3	1		1		3	1		1	
63	1	1	1	1	2	1	2	1			
64	2	1				2	3			2	
65					5	5					
66				1	1	1	1	2	2	2	
67	1	1		2	3		3				
68		1	1	1	2		3				
69	1		3		1	2	2	1			
70	1	1		2	1		2		2	1	
71		2		1	1	1	3		1		1
72	6	4									
73	3		1	1			1	3		1	
74	1	2	1	1	1		3			1	
Total	77	64	45	78	101	46	130	84	33	50	28
	10%	9%	6%	11%	14%	6%	18%	11%	4%	7%	4%

Appendix 5- Settling Pond Activity

Name:

MORNING ACTIVITY: THE SETTLING POND

Many of you have great ideas “floating around” on how to address wetland conservation issues in our region and who are working on great initiatives. This “Settling Pond” will capture your ideas and initiatives in an effort share and report out on them. At the bottom of this page there is a framework for conserving wetlands (this framework will be explored in the first few presentations). Your job is to: (1) write how you, or your organization, can support various aspects of this framework; (2) identify an opportunity to support the framework. *Note: An example of how to fill out the form is on your table.* We will post all of your responses over lunch and then compile them for a public report after the workshop. PLEASE PRINT CLEARLY! TO COMPLETE BEFORE LUNCH



1. Information

	Step 1: Write down how you, or your organization, can support various aspects of this framework	Step 2: Identify an opportunity to support the framework (needs/opportunities)
A) Joanne Breckenridge, UBC PhD student	1 → B. I'm studying the zooplankton of the Fraser River Estuary, from Sand Heads in the Strait of Georgia to New Westminster, with a focus on the South Arm. Zooplankton dynamics are strongly influenced by current velocity, the residence time of overarching goal is to predict the influence of an earlier Fraser River freshet (due to earlier snowmelt) on the zooplankton community	C → 2 This project offers an opportunity to identify zooplankton species present in the estuary, including the non-indigenous ones, and their centers of abundance. These organisms are at the base of estuarine food webs but are often ignored.
B) Rob Knight, Community Mapping Network	1 → B, C → 2. Supporting and facilitating citizen focused information and literacy using standardized methods training and internet resources using http://cmnbc.ca resources.	6 → E → 1 Responding to ENGO needs and ambitions to strengthen and expand the first activity.
C) Tom Peterson, Kwantlen student	B → C. As a soon to graduate student from Kwantlen Polytechnic University, Horticulture Degree with a major in Urban Ecosystems, I may be able to provide support in collection and sharing of information related to wetland management. I may also report transparent feedback as a citizen and for a professional. Provide accurate assessments of ecological community. 5 → E As a horticulturist, I can make informed plant selections for gardens near wetlands.	
D) Kiirsti Owen, BCIT student	1 → B. As students in Ecological Restoration, we learn about the importance of wetlands, how to inventory different parameters (water quality wildlife/plant surveys, etc), and why and how we should create/restore wetlands.	Goal 1 → C. Goal 5. Goal 6. Many of the current ER students are undertaking restoration projects, many of which are wetland or estuary restoration projects that include baseline monitoring, developing a restoration plan, connecting with local community and stakeholders. (Creating awareness, giving us skills to move forward in this field, in some cases actually implementing restoration, coordination with different groups (local gov't, community members, NGOs, First Nations, etc).
E) Keith Sorenson, Stream ecologist	My background & skills suit me for collecting robust data and reaching out to potentially interested parties to build their awareness and inspire them to value wetlands and their functions.	Goal 1 → C → 2. I can reach out to technical and lay audiences alike to provide them with both relevant information, and the context by which to judge its value.
F) Kristen Hudson, Kwantlen student	As a current student studying Urban Ecology and Watershed Management, I can 1B provide information and 2- provide awareness to student colleagues and the general public. My applied knowledge + skills may also allow me to conduct or lead restoration projects such as invasive species removal, re-vegetation, and canopy cover plantings.	My final research project aims to restore a stream which is present on our campus, by reintroducing native edible/medicinal plants. This will provide awareness of traditional plant use while creating a diverse, productive contribution to our watershed.

G) Kimi Balsillie, BCIT student	BCIT Ecological Restoration program provides up to date information B + C + D + E awareness and hands on experience with constructing wetlands. 1 + 2 + 5 + 6 Education is key! Implementation is action ← BCIT offers this. Me: Learning to implement and apply adaptive management.	2 + 1 + B + C + A. Daylighting Guichon Creek (helping in the cumulate efforts). Constructing wetlands to increase water flow to help with fish migration upstream. Reducing invasive plants within riparian habitats to increase biodiversity of plant species and wildlife. Increasing 1 + 2 of restoration efforts in this area (students at BCIT and surrounding communities)
H) Jim Roberts, Hemmera	Part 1: As a professional biologist, I have an interest in providing information that can benefit good decision-making. I also, outside of work, have an interest in providing information (including wetland ecology) at a community level. Part 2: The company I work for has been developing local use of eDNA (environmental DNA) as a technique for identifying aquatic species at risk (including wetland species). This technique can benefit conservation effort, by demonstrating presence of at risk species.	Land securement and restoration- Database (web-based map integrating wetland mapping with land ownership → to drive engagement and dialogue with owners.
I) Sarah Howie, The corporation of Delta	1 → Z → A. Engage citizen scientists in collecting data in our local streams. As a municipality we can support this with materials and training. As we discussed this goal at our table, we discovered that there is a pre-existing network in our area of streamkeepers monitoring water quality. We are going to work with Delta's streamkeepers to join this network! Yay!	
J) Sarah Atherton, Langley Environmental Partners Society	1 → B. Map wetlands of north Langley collect data on health/fragmentation status. 2 → A,C,D. Landowners contact/community awareness/support from landowners	5 → A,B,C,D,E. Work with private property owners to enhance/restore maintain wetlands on private property. Create awareness in community about ecological functions of wetlands. 5 is ultimate goal, but goal 1 and 2 must proceed first. *Based upon proposed for wetland education and restoration/enhancement project currently under review.
K)	Step 1: Develop classroom material on local endangered species. Step 2: Reach out to potential funders to engage them in saving wetlands.	Step 3. Share information between wetland organizations to let each of us know what we are doing.
L) Hannah Nieman, BCIT student/Burnaby Lake Park Association	1 + B. Hoping to involve public in monitoring restoration efforts → training groups of volunteers to collect vegetation data that can be compared to pre-restoration base line data, also potential involvement in photo monitoring.	2 + C. Reaching out to individuals about impacts on restoration site and general park location and what area use to look like (ei historical conditions). A + B. At events we run recycling/compost collection → create awareness in people at events and want to voice concern over lack of recycling/compost bins in various facilities and parks (where appropriate)
M) David Riley, Little Campbell Watershed Society	Share technical information about built environment effect on watershed.	E- Act as contact between affected property owners developers and munis.

N) Andrew Baylis, A Rocha Canada	<p>B→ C→ 2. We are conducting ongoing monitoring and inventory surveys on 11 species at risk (including Northern Red-legged Frog, Western Toad, and Salish Sucker) in the Little Campbell River Watershed, and communicating our findings to partners, volunteers, and visitors in the form of reports, updates, and blog posts.</p> <p>B→ C→2. We are monitoring water quality throughout our watershed in order to complement existing monitoring projects by local groups</p>	<p>A→ 3,4. We are assembling an overarching Watershed Stewardship Plan for species at Risk that highlights key areas for conservation and can help to inform protection, restoration and stewardship by decision and policy-makers and partners.</p> <p>A→ 5. We are assessing the watercourses in our watershed and identifying potential contamination sources and opportunities for habitat restoration, in collaboration with City of Surrey and Salmon Habitat and Restoration Program (SHaRP).</p>
O) Student	As a student, I've found hands on field work to be very useful. I think incorporating student training with the need to obtain long term monitoring on specific sites can be very beneficial to different projects. This can increase knowledge sharing, capacity, and coordination.	As part of a year long project, my team of three is working on a proposal to restore Lynn Creek Estuary
P) Tara Matthews, Echo Ecological	1→B. Support information. Collect data from wetland/riparian areas on the North Shore. Share info- Make information available to varying bodies and management organizations.	We are monitoring fish and wildlife populations in wetland restoration sites before and after the completion of restoration works to determine the effects of the changes.
Q) Student	BCIT is a school of various trainings being offered. Good quality of ____ which starts in the information. I think information is important to start setting goals how one can move forward in strengthening our collaboration with our partners in the government. The academic like BCIT is a good venue to promote this awareness at the level of the students. Then, we can make our ____ paper backup with good opportunity how to do it; like tapping _____ support from private or non-profit organizations with similar goals.	
R) Aleesha Switzer, Fraser Valley Conservancy	1→B. As a biologist I collect information on endangered species and habitat (Oregon Spotted Frog)	2→ A. Share information about Oregon Spotted Frog through social media.
S) ZoAnn Morten, Pacific Streamkeepers Federation	C. Much of the data could be rolled into the streamkeepers database such as water quality and bugs.	Streamkeepers and wetlandkeeper programs were designed to work together. We share same trainers so cross pollination could be done more effectively. Government not along in silo building☺
T) Rena Mackas, Hemmera/WildResearch	Goal 1B . Goal 1C2. A biologist in training with a consulting company and a NGO , I have a technical + professional background that can help transition information to the awareness stage. WildResearch brings together volunteers to help citizen science and conservation programs in BC (mainly Lower Mainland). We are focused on answering scientific questions and try to adhere to the scientific method to produce and provide meaningful scientific data.	WildResearch is currently monitoring avian (bird) use of wetland/riparian areas at Iona Regional Park in Richmond. We also are developing a program that will monitor + compare bird nesting behaviors and how it is affected by the removal of invasive blackberry and planting of native plant species.

U) Alan James, Stoney Creek Environmental Committee	A recent initiative is a collaboration with SFU Dept of Environmental Sciences to install a continuous water quality monitoring station on Stoney Creek. The data will be publically available and used by SFU students who use Stoney Creek as an environmental classroom.	This supports conditions B&C & goals information & aware.
2) Awareness		
V) Bryne Creek Streamkeepers	Byrne Creek Streamkeepers have most impact at the information and awareness levels. Much of our volunteer resources are devoted to education of kids + the general public	We also advocate for protection + restoration at the municipal level.
W)	My education + background (55years) in biological sciences has prompted me to develop what I call the reconnecting with nature program which aims to educate the public about nature, conservation, etc by leading interpretive nature walks and giving lectures in addition, I work with local government advocating conservation/management of natural areas.	
X)	1→ C→ 2. We have a nest box program around Burnaby Lake for wood duck, swallow, flying squirrel, and others. We run public parties to bring an urban population to the lake to learn about the species and the importance of the take and wetland areas to the region (awareness and information). Framework a) buy-in. c) share information.	6→ Building capacity and coordinating some of the environmental stewardship efforts. Plus have some fun! Clearly communicated environmental needs to the public-policies with all parties involved. Education of citizens- resources needed- what do citizen lose if development happens?
Y)	-Create awareness, knowledge set, understanding among ____ students of wetlands, ____ and ____ -Train students to be more informed; to have technical skills in protecting + restoring wetland ____ inventories. -Work with local governments on ____ projects (lost streams), etc.	
Z) Rebecca McMurray, BCIT student	Gathering info: as a restoration practitioner I am trained to monitor different aspects of ecosystems including wetlands. Awareness: bringing these issues p in other community groups I work with + relating it to their agendas. Spreading the work to friends, family, and my community. Land securement + restoration: restoration practitioner!	Awareness: Dewdney CORE program & other CORE education programs use kids to get their parents involved. Kids might not be able to gather the info but they can get their parents thinking + aware of issues. Restoration project at HPSS → getting schools involved. Be more collaborative between groups→ too many different messages confuse citizens and don't reach critical mass.
AA) Stephen Bonetti, BCIT student	Goal: To increase awareness about wetland benefits and wildlife.	Opportunity: for example, when restoring and constructing wetlands, choose available urban space and include educational signs and public involvement in the project

BB) Lyda Salatation, Green Teams of Canada	1+2+4+6. Green Teams of Canada restores and conserves ecosystems through hands-on outdoor experiential education. We connect people to nature, connect people to existing stewardship and environmental groups, build community amongst like-minded individuals, restore habitat, educate about environmental issues facing ecosystems. We are very collaborative. The Lower Mainland Green Teams (started in 2011 with 2000+ volunteers) works with (co-runs activities like invasive plant removals, plant native species...) 44 others (BC Parks, Metro Van Parks, municipalities, environmental/watershed stewardship groups). We also just started the Greater Victoria Green Teams (360+ volunteers so far) in Aug 2014. We run on social media and have tapped into the 10-45 year old demographic. We are very transparent and share photos, volunteer info. Every single activity has a write up online and a photo album for all to access. Our goal is to encourage people to become environmental in the everyday lives and connecting them to nature is a start to building an consciousness.	Interested in volunteering visit the Lower Mainland Green Team (there is a long list of 44 other groups along with their urls we work with on our main page for those looking for other volunteer opportunities aside from the Lower Mainland Green Team). I also have a page I created to list specific contacts for additional volunteer opportunities HERE .
CC) Student	University environmental students advocating wetland protection/workshops/citizen science projects to public school students/teachers. → Cheap way to spread education knowledge and allows for accurate citizen science data collection if competent students are advocating and teaching/assisting.	As part of curriculum in both university/post-secondary and grade school. → Inexpensive, “more” accurate collection of meaningful data. → Instilling protection/conservation in youth.
DD)	1&2. Skytrain construction has ____ red-legged frog habitat. We have tried to make local ____ aware of the need to restore ponds etc ____ frogs. 3. 5. These frogs need a forest around the wetland as adults yet ____ forests have been mostly destroyed and limited the ____ CP Rail refusing to replant on their property.	6. Solution?
EE) Marie Pudlas, Kwantlen student	Information: Gathering data on historical streams that once flowed through the Langley campus parking lot.	Awareness: Marking the parking lot to show where the stream was for students, staff, faculty, et... to visually see and better understand.
FF)	Awareness is a necessity. Not enough perception and education is consumed by the general population. A good step is lead by example.	There should be an emphasis on producing a special “icon” that indicates wetlands and this mark should be shown on all of the mapping that is produced. Make us more aware of wetland locations and the connectivity to water courses.

GG) Metro Vancouver Parks	Metro Vancouver Regional Parks have many awareness + programs that can be used to raise awareness + inform the public about the importance of wetlands. Examples: interpretive programs, stewardship program, park partnership program, kiosks/brochures/websites, signage, park staff, restoration projects, collaboration with others.	
HH) Gerard Cowan, Burns Bog Conservation Society	1→C→2 To raise awareness about the importance of Burns Bog as an ecosystem that provides many valuable ecosystems services to the people of Delta and the Lower Mainland.	1→C→2. At present, the number 1 objective of our organization is to campaign against the Mk Delta Lands development proposal that will be built on the vital 'LAGG' zone of Burns Bog. Were this development to go ahead, it would have repercussions for the water table in a large section of the bog.
II) Trout Lake Bog Restoration Project with Camosun Bog Society.	1. Using information from this workshop to better understand how to collaborate with other parties.	2. Spreading awareness about the importance of bogs and wetlands through public involvement and education. -getting volunteers involved -using social media -monitoring success
JJ) Trout Lake Bog Restoration Project with Camosun Bog Society and Van Parks	1. Potential for public education + awareness as to the importance of natural spaces/ecosystem values especially bog ecosystems. 2. Restoration of degraded ecosystems + habitats in a very densely populated, highly used urban park.	I believe our opportunity to support awareness is our largest potential contribution. There is a huge potential for volunteer engagement + public education/awareness raising.
KK) Jonathan Wong, Vancouver Aquarium	2 (B+C). I have take__ SARA + other species of concern and tried to show their intrinsic value + aesthetic worth to instill passion for conservation. - I notice a need to diversify our communication to maximize outreach opportunities. I've spent 20+ years producing, directing + photographing industrial, educational + entertainment video + photography. I think using multi-media (impactful images) improves all our communication, and projects, programs + goals. - For online presence, a steady stream of updates, written connect, videos, photos improves communication of efforts and progress made. This is important not only for community outreach, but it is a powerful set of tools to attract prospective grant funding, approaching policy makers, and to serve as a visual record of conservation efforts.	
LL) Theresa Coles, City of Surrey Volunteer	I gain valuable information and share ideas with the community. I volunteer with my city to host events and connect to the citizens so that we can establish a passionate group of people to make a difference in a local level. I went to broaden my knowledge and experience so that I can pass it on to my community.	

MM)	<p>1→ C. Information: provide data and info sheets to interested parties – presented turtle habitat use to the western painted turtle recovery team</p> <p>3→E. Legislation: work to implement bylaws for protection of turtles and associated species. –Have achieved legislation to prevent sales of freshwater turtles as they are often released into the environment.</p> <p>2→A. Awareness: work to spread awareness of SAR. – have achieved support of private landowners to protect turtles.</p>	
3. Enabling Legislation		
NN) Maureen Vo, Burns Bog Conservation Society	<p>2→C→3. We are planning to deliver a multi-day festival “Wetland Nature Festival” inviting elementary students to Burns Bog for a day of hands-on learning about wetlands and their local environment in an actual wetland.</p> <p>-Topics will align with BC curriculum and emphasize the importance of wetlands, species at risk, biodiversity, etc.</p> <p>-We hope to work with local high school students to develop environmental and leadership programs allowing opportunities for them to organize projects, campaigns, fundraise, and teaching elementary students on festival days.</p> <p>-The festival will be set up throughout the Delta Nature Reserve with interactive stations.</p>	<p>We are seeking support, ideas, and collaborations to develop the educational units, organize ideas, and plan for the event. If this is something you could contribute to, please contact me!</p> <p>Info@burnsbog.org 604-572-0373</p>
OO)	<p>2→3→4: Awareness→ My work involves surveying for species at risk on private land. Hence identifying important __ habitat for species and talking to land-owners about species at risk and habitat is one of my objectives.</p> <p>→ I share a lot of my data with municipalities</p> <p>→ enabling legislation</p>	<p>Do follow up work with land owners re: species at risk → supportive framework.</p>
PP)	<p>2→3→4. The economic benefit of keeping and assisting the Lower Mainland wetlands could be highlighted more to all levels of government.</p> <p>Development of property has short term gains for a few, but preservation of the natural areas will become a shared resource for the growing population. People do seek out the natural beauty in BC and through recreation, health, being livable and sustaining nature a case can be made to showcase the valuable wetland assets. If this larger group worked together to contact all the municipal mayors and council throughout the region, it would demonstrate how important this issue is and how passionate people feel about the threats. We are fortunate in that BC, despite all the population and growth, still has many possibilities and chances to help and repair watersheds.. If you travel to other places in the world you can appreciate how much beauty is right here at home.</p>	

QQ)	C→2. Invasive species removal and monitoring sites in future 1-5 years to note change in successional stages.	A→3,4. Pollution monitoring of storm drainage legislation and heavy fines with forced cleanup of spills and continued monitoring. A→3,4,5. Protection of foreshore from development. Open House discussions before development to include all parties legislation to include mitigation of the removal of lands into development by the creation of natural areas within developments ie bio swales
RR) Consultant	A→3,4. Consultants serve to help NGOs and stewardship groups to provide valuable information that has been scientifically reviewed + QA/QC'ed	Through collaborative efforts, this can offer NGOs + stewardship groups more 'legitimacy' to earn more support + push/enable legislation
SS)	Municipal gov policy for environmental impact on every development (urban/agriculture/____ to include all environmental dynamism, function complexity for bio-diversity sustainability and consequence endpoints.	We need baseline midpoint endpoint restoration of all land use change to assist ecosystem function to recovery and resilience.If this policy initiative is not reated immediately, the science is not applied the ruining of the earth will lead to mass extinction. ____ the earth is dying of cancer and need ____ medical attention or it will die?
4. Supportive Frameworks		
TT) Mark Sloat, City of Burnaby		1. Update the city's environmental sensitive areas mapping 4. Develop an updated strategy for ecosystem protection, including species and ecosystems at risk 6. Work with our streamkeeper groups to understand their needs and how the city can continue to support them
UU)	As local government can support enabling legislation/policy/bylaws to support preservation of environmentally sensitive areas	More information/awareness/ education support from community groups can often do a better job at that to build social capacity and understanding for ecological preservation
VV) Robyn Worcester, Stanley Park Ecology Society	2↔ C↔→1. Providing monitoring information and volunteer capacity to build community and local government awareness of wetland conservation issues and opportunities. B↔→6→5. Helped to coordinate and provide capacity to result in active restoration of Stanley Park wetlands.	2→A→4→5. Can use our current work and frameworks being created to positively impact wetland projects in other areas of the city.
WW) Charlotte Adamson, BCIT student	4. We recently formed a local student chapter of the society for ecological restoration at BCIT. One of our goals is to facilitate coordination and collaboration between different stakeholders working on restoration projects.	5. We could also be able to provide skilled volunteers/students to create and undertake restoration projects to gain skills supervising volunteers or for course credit

XX) Melissa Chaun, Tri-City Green Council	As a volunteer member of the Tri-City Green Council, established by community volunteers to hold local government accountable, I've been participating on the Coquitlam River Watershed Roundtable (CRWR) for the past year plus as it holds various inclusive workshops designed to help form the new Watershed Plan for the Lower Coquitlam River. This has been a revolutionary understanding based on the open standards for conservation model (used widely in the US) geared to be as inclusive and assessable as possible. Federal, provincial, regional, and local government representatives sit on the CRWR, including members from industry, academia, stewardship community, and the public	
YY) Bernie Claus, Bowen Island Nature Club	2→A→5 (Grafton Lake Wetlands) Supporting decision-makers (largely the municipality) to ensure there is no net loss of ecological and wetland function and services as a several 100 acre property is developed, that is home to Grafton Lake and large wetlands, and Bowen Islands largest domestic water supply	1→C→2 (Educational literacy) Raising and sustaining the level of public and local government literacy regarding watersheds and wetlands.
5. Land Securement and Restoration		
ZZ) David Sheffield, Metro Vancouver Parks	Metro Vancouver acts as an organization to lead regional sustainability initiatives and runs media campaigns addressing waste and recycling issues.	Metro Vancouver could use its media capability to focus attention on wetland awareness and programs to engage community groups in wetland protection and restoration. Land securement is a key component of the Regional Park system → the renewed focus of this system is conservation with riparian conservation a key land selection criteria.
AAA) Metro Vancouver Parks	As a representative of a regional district and in particular a regional parks agency, we can and do support all aspects of the framework below. However, one thing that we can do that many others cannot do, is the land securement part. We have a land acquisition budget that can be used to purchase and set aside wetlands and other ecologically important lands. Further- we have the ability to manage those lands and to do work with non-profit groups and the public to restore, remove invasive species, etc, carry out educational programs, provide data, etc.	How can we make sure our land purchase funds are spent on the most important areas? It would be interesting to know as a result of this workshop- what/which aspects can/should be done better eg. areas for improvement. It is often difficult to give funding directly to many worthwhile groups. How could we help in other ways?
BBB) Bob Puls, Langley Field Naturalists	2→A→B- 5,6. Establish vernal pond on crown land "wildlife area" managed by Langley Field Naturalists to increase frog and salamander reproductive habitat, but discourage bullfrog reproduction. 2-D-C. Report to LFN and Ministry of Forests on ongoing basis. 1-B. Identify structural parameters, cost of implementation and funding required – identify funding sources, partners, and apply for funding.	

CCC) Melissa Oakes, TWU	I am involved with restoration and research projects as funding permits.	As a citizen and biologist, I can contribute buy-in, sufficient info and sharing information, reporting and adaptive management.
DDD) Graham Knell, District of North Van	Local gov't- Coordinate volunteer groups into wetland work. Removal of garbage, invasive species, and then re-planting of native wetland plants Co-ordination and awareness is a big part.	Need more \$ to be effective
EEE) Sarah Thomasen, BCIT aquatic ecologist	BCIT ecological restoration students spend a lot of time learning about wetland restoration and the threats they are facing... students also like to volunteer to learn about future jobs... these students are a great resource for citizen science groups that need more support with research and education	BCIT ecological restoration students are always looking for projects to do for course credit and also in their free time and wetlands are well-loved ecosystems. Many students would be interested in volunteering in wetland restoration projects and applying their knowledge to local initiatives.
FFF) Julia Alards-Tomalin, Green Admiral	We are working to restore estuaries on the north shore.	To get to this point has required all of the other steps but in order to maintain these restored areas, we need to keep going through the cycle of steps. Long term funding and a network of stewards is the only way to ensure these areas remain in a restored state. It is hard to get people excited once a project is "completed" but in reality these projects are never truly over. Nature doesn't exist in a vacuum. We need to continue to engage, educate, and gather information.
GGG) Brian Titaro, Metro Vancouver Regional Parks	2→A→5. Help facilitate environmental stewardship projects in regional parks with volunteers and community groups to raise public awareness on the threats to parks/protected areas. This leads to an interested and aware citizen base that engages in local restoration projects.	5→E→1. Monitoring and research of restoration techniques that can help develop BMP/procedures in how various invasive species can be managed effectively in an urban setting with community volunteers.
HHH)	5. Get Roberts Bank into RAMSAR	3,4. Wildlife Management Area does not provide protection. The Roberts Bank Area is in the W.M.A. and yet it is likely to be seriously degraded. Put teeth into W.M.A. to get it actual protection.
III) Anne Fisher, BCIT student	5. We are working on a project to restore a wetland in the Cobble Hill area of Vancouver Island. B. As part of this project, we are investigating different ways of managing invasive plants in restored wetlands.	

JJJ) Martin Leung, Kwantlen student	<p>We are restoring/reclaiming a patch of land (riparian area) overtaken by blackberry, where we can raise awareness about invasive species and riparian management. Aimed at local stakeholders; we could install signs to provide information or simply spend the information mouth to mouth.</p> <p>We are advocating for permission to be able to day-light a stream underneath a parking lot, it was once part of Logan Creek.</p> <p>We have surveyed the parking lot for parking needs/demands. We have also conveyed the idea around and it is currently ongoing</p>	
KKK) Elise Mackie, BCIT student	<p>5→E→6→1. As a student studying the science of restoration ecology, it is essential to enhance adaptive management initiatives through scientific research. This research is essential to building the framework for continuing and new wetland restoration projects. With a good framework in place with better data an information gathering there is higher likelihood of successful restoration projects occurring.</p>	<p>1-C-2. At BCIT we are taught to create through restoration initiatives, which should be accessible to the public. Promotion of these projects would garner community involvement and awareness through a scientific manner. Project signage is essential for public awareness, as well as respectful and open communication.</p>
6. Coordination and Capacity		
LLL)	<p>1-B. Information to DM using 2 page summary concept notes. Be specific about ____ with DM. Encourse effective useful tools in place.</p> <p>5. Land securement through compensation programs, carbon offsets, carbon tax, no net loss trade offs (ie use to motivate developers)</p> <p>4-A. Supportive Framework- new ways to raise long-term money by doing “fee for service” to regional governments. Be local consultants. Share resources and skills.</p> <p>6-D. We tend to do a lot of work leading up to decision making. Need to track impacts – value conservation/restoration. Track accountability and value of success. I told others into future to account. Feedback to DM and community.</p>	
MMM) Ian Rogalski, Environment Canada	<p>Priority: Supporting partnerships for the governance and conservation of ecosystems.</p> <p>→funding coordination efforts, supportive frameworks, + science based information to facilitate decision making and management</p> <p>→coordination among local partners across the province/region to share and capitalize on best practices across governance mechanisms.</p>	6,4,1
NNN) Regional government	<p>Building capacity through community engagement in stewardship activities.</p> <p>Recent development of an organized Natural Resource Stewardship Program has increased public participation in park ecological restoration programs.</p>	

OOO) Dana McDonald, Evergreen BC	2→A→3. We are trying to garner support from local governments and stewardship groups to work together to address goals laid out in plans (climate adaptation; stormwater management, biodiversity) together→ maximize efforts of all involved.	1/6. We are a large organization and may have access to different pools of funding than other, smaller groups. Our strength lies in engagement and our broad network puts us in the position to be coordinators/convene around urban environmental issues.
PPP) Lovena Morton, South Coast Conservation Program	The South Coast Conservation Program (SCCP) works on a number of different levels. We provide information and awareness about species and habitat conservation but also coordinate with local governments, stewardship/conservation groups and landowners.	→If you are a landowner interested in learning how to enhance your property's ecological values see our landowner stewardship program. →If you are a government looking to plan how to conserve species at risk, see our Primer for local governments. We provide a fee-for-service program. → If you are an educator, learn about enhancing awareness by incorporating SAR in your curriculum with our species at risk in the classroom program.
QQQ) Greg Ferguson, BC Swallows Conservation Project	Information: Collecting sightings, nest locations and monitoring. Awareness: Engaging mostly naturalist and general public in swallow conservation and information collection. Legislation: Collecting data to better understand swallow species trends and put data towards recovery under SARA. Restoration: Help private and public partners with swallow conservation and stewardship Coordination: Awareness, collaboration	
RRR) Kathy Dunster, Kwantlen head of program	1→ABC→5. KPU established a new degree program in 2013. BSc Major in Urban Ecosystems to educate the next generation of urban parks and natural areas managers a planners. The program has a heavy focus on hands-on experiential learning. Our lab is the 45 acre Langley campus which includes a ____ of the ____ and wetlands → all in need of restoration, inventory assessment and monitoring. 1→6. KPU Faculty have been talking for past 12 months of establishing an institute for wetland studies to coordinate research across BC and move the Wetland Action Plan forward. We need to talk! 1→B,C→2 Through applied adaptive management projects on the Langley campus become a working example of how to do things right at various scales and technology. 1→A→5 We have been buy-in from university to begin a long-term plan to remove a piece of parking lot and restore a small creek that was long powered over after 150 years of ____ use.	Need \$\$\$
Wildcard		

SSS) Brydon Lagoon City of Langley	<p>-In summer 2014, suffered major fish kill due to significant water temperature increases and poor oxygenation when installed aerator broke down.</p> <p>-Brydon Lagoon Environmental Task Force approved by city of Langley- representatives from 4 environmental groups and 2 public volunteers.</p> <p>-Depth of water in Lagoon seriously reduced over recent years. Task Force to develop plans to ensure future health of the Lagoon by mid- 2015</p> <p>Lagoon is part of Nicomekl Floodplain and is City owned</p>	-Dredging alternatives represent a major financial challenge
TTT) Brian Wormald, Port Moody Ecological Society	<p>Port Moody Ecological Society supports the framework in a number of different aspects.</p> <p>Information: We participate in many outreach events yearly</p> <p>Awareness: We hold several public events/festivals each year to bring awareness to the community about salmonid enhancement, riparian health, local species</p> <p>Coordination + capacity: We work with other community and NGOs to go invasive plant pulls, tree planting, habitat restoration etc.</p> <p>Land securement + Restoration: We work with the local city, MOE + DFO to ensure local streams are restored to health or remain so during any related work.</p>	<p>Port Moody Ecological Society Supports every aspect of the framework, except “enabling legislation”- although we work very closely with the city of Port Moody to provide input to any environmental/ecological concerns.</p> <p>We also support the framework by providing bursaries/scholarships to qualifying student volunteers each year to assist them in their formal education in environmental studies. This facilitates continuity to environmental education and opportunity for change!!!</p>
UUU) Ducks Unlimited Canada	<p>-We can support (as part of our mandate) 1) Information, 5) Land secure/restoration, 6) Coordination.</p> <p>-We work cooperatively as a partner to 4) support frameworks and could have a supportive role and 2) awareness.</p>	<p>1) Info: DU, CWS, Metro Van have GIS/expertise to map and create broad landscape stats on wetland loss/increases</p> <p>2) Land secure/restore: have tech expertise on both, have knowledge of broad/fine scale of locations</p> <p>3) Coordination: DU works through several partners on conservation usually at broader scales: BC (provincial)</p>
VVV) Marg Cuthbert, Friends of Semiahmoo Bay Society	<p>1→B→C→2. We offer free methods training workshops, school programs, and have published numerous products-Georgia Basin Habitat Atlas, Boundary Bay brochures on Boundary Bay, Eelgrass, ___ fish, beach etiquette, etc. We also host events such as World Ocean Weekend, the Birds on the Bay & Beyond Program and the Beach Hero Interpretive Program, etc.</p> <p>A→3. We _____ and continue to do on the sustainability charter, Biodiversity Strategy and numerous working groups in the City of Surrey. We are a source of information to local gov’t, City of Surrey, City of White Rock.</p> <p>A→5. We conduct numerous restoration projects in Boundary Bay, Little Campbell River (planting, invasive plant and debris removal). We also conduct _____ to determine change _____ time to influence restoration planning- eelgrass mapping & monitoring, _____ fish spawning habitat surveys and streamkeepers _____ surveys.</p>	<p>6→D,E. We began and continue to work in partnerships to share resources and coordinate numerous projects with other NGOs, gov’t agencies, First Nations, and local business. We have and continue to encourage volunteers of all ages and cultural backgrounds to participate in our organization and project work.</p>

WWW)		<ul style="list-style-type: none"> -Be a watchdog. Report to bylaw enforcement officers. -Monitor local development, eg siltation control measures during periods of heavy rainfall -Lobby your mayor and councilors and staff, build positive professional relationships -Write letters to editors (they don't always get published but persevere) -Make presentations to your council (PowerPoint) -Increase your network by joining other groups -Develop relationships with property owners, especially farmers. -Introduce others, particularly youth to wetlands and forests. Take them off trail into the water using waders at daybreak inspiring servicing nesting boxes, for example -Focus on your youth to fix their values for life -Become familiar with property re-zoning process and become active
XXX)	Naturalists clubs + members can input 1) increase, 2) give input + critique, 3) may be/are involved with 5).	
Peter Ballin, BC Nature	<p>-Local naturalists can often provide a wealth of historical knowledge of their area. Given the demographic in the clubs, there's lots of experience and connections to the community and government. Potentially, there's lots of ____ for projects, Many individuals sport excellent communication and presentation/skills.</p> <p>-Local clubs have ____ been involved with conservation issues and special places.</p>	
YYY)	5→ Significant habitat + enhancement projects (in FVRD electoral area) focusing mainly on salmon habitat- including other values (SAR, FN's archeology, municipalities, parks and rec). Both instream and riparian and wetland.	
Natashia Cox, Fraser Valley Watersheds Coalition	<p>2→ Education, outreach + hands-on learning- bringing communities to restoration projects- UFV, school districts, scouts, clubs, etc... learning modules about healthy watersheds.</p> <p>6→ Coordinate multi-year/multi-partners (gov, NGO, FN, communities) projects (restoration, monitoring, landowner contact, education, facilitation, and watershed planning)</p> <p>1→ SHIM, watercourse + wetland mapping + classification</p>	

ZZZ) Student	So...I am going to re-start a nest box program in Squamish Estuary after contacting local groups and see if I can build on success of other organizations like Burnaby Lake	As a student, I am constantly searching for meaningful volunteer experience. Pulling invasive plants, although beneficial, can be done by volunteers that are content with this level of commitment. I think There are many budding citizen scientists of all ages that want to make a meaningful difference and learn new skills but there are not enough leaders with the time, experience, training, or empathy to channel this energy into meaningful data. It needs funding, support and a model to follow that can be standardized (like streamkeepers). We need a depository for this data especially in smaller communities that may have a smaller pool of experience to draw from.
AAAA) Jennifer Brown, Surrey volunteer	I am an active volunteer. I lead by example. I encourage other dog owners to clean up after their dogs. I encourage others to be active in their city by volunteering☺	
BBBB) Fraser Valley Conservancy	5- We protect habitat including wetlands as part of our mandate as a land trust. -We restore wetlands on our properties and work with other local groups on restoration projects on crown and private land. 2- We promote awareness about wetlands as part of our larger biodiversity messaging at community events we further promote awareness by engaging community members/volunteers in restoration work/events 6- We partner with other local groups and local gov't to assist with coordinating wetland projects 1- We collect mapping and survey data as a fee for service/part of funded projects and make the information available	
CCCC) Nicci Bergunder TFN	1. I am working to link First Nations to species of concern in their communities to economic, employment, and training opportunities within the communities. We can provide/ make opportunities that encompass all those goals (we are doing it, but we need partners/supporters to continue). Much of the remaining wetlands is either within FN lands or is utilized by FN communities. 2. Currently we include First Nation trainees on our invasive species, habitat construction, and maintenance projects. We are bidding on new projects continually and have begun applying for grant funding in partnership with local stewardship groups.	We have opportunity in Tsawwassen with a habitat/park project to be designed this year, we will be looking for partners/team members and hope to develop long lasting relationships that we can bring to other projects.
DDDD)	- Need a collaborative approach on B→1→C→2→A. Many groups collecting terrific data and other groups unaware of all the resources regionally available. -Need for roundtable discussion/updates on group projects unfolding so that other interested partners can collaborate.	Greater need for internal government departments to collaborate on project development and discuss stewardship initiatives. (eg think of Lee-Anne's example about government person giving her Alliance \$100,000, they needed to know about the project to be able to support it) -Internal collaboration with different departments.

Appendix 6- Group Breakout activity

Academia – Should there be a wetland hub in the academia space?

- The group agrees yes.
- The main purposes of such a hub would be to:
 - to facilitate communication between academic institutions as well as outside the realm of academia.
 - to gather data on wetlands and related research so as to not repeat efforts and be able to identify gaps.
 - to connect academic research to the needs of the community (in relation to wetlands). ie. Encourage relevant, impactful research.
 - To share past and ongoing wetland projects. Successes and failures.
- The hub/group would also contain the following properties:
 - Possibly a board with members from each lower mainland and Island school so as to maximize results while minimizing workload on a single person/institution.
 - Will not simply be “hard science”. It will involve a number of different disciplines (ex. Visual arts or Recreation).
 - Be centered on the lower mainland
- Other notes:
 - Should it be used to coordinate mapping efforts?
 - Look to the Peatland Ecology Research Group as a model?
 - Information should be housed on a school website so it will have funding.

Restoration Network

- Soc. Ecological Restoration (BCIT)
 - Network through website
 - Workshops
 - Online forums
- Lower Mainland Green Team
- Work w/FN groups
- Policy initiative enviro.
 - Encourage/advocate
- Projects that groups are doing? Where is the info?
- Funnel funds to “Grass Toors” orgs. How?
- Technical aspects
 - What are they?
 - Grow together
- Cannot solve all env. Issues
- Sust. Env. Issues
- Pamela –Diversity – s/c Conservation

- Diversity by Design
- Wetland Designs to encourage wildlife
- Pt. Moody- Hatchery- volunteers
- Ecological goods + sus – restoration to private land
- Plot restoration on map to encourage participation
- Fostering Sustainable Behaviour (Doug McKenzie)
- Networking , shovels, equipment, etc (supply hubs)
 - Pt Moody Hatchery
- Training opportunities for staff.
 - What is useful then teach volunteers.
 - Group rates for training
- (SER int'l)
 - Needs to be local relevant restoration proj.
 - BCIT has L. Mainland chap.
- Volunteer opportunities for Admin Staff
 - List areas
 - Populate databases
- Stewardship centre – still running?
- Social events. Community centered
 - serbcit@gmail.com
- Use local academics to help in restoration projects
 - Knowledge base
 - Consultant group; stewards w/tech experience to help
- Learn from others mistakes
- Positive collaboration of groups
 - Having contact pts/persons at each group

Advocacy/ Protection

- Beyond LEEDs
 - Loop holes
 - Consider entire development (account for environment)
 - Need broader perspective (watershed) level assessments
- Ability to mitigate is dropping
- Compensation is not or often not effective
- Citizens need more involvement in
- Better protection for ALR
 - Δ Tax system
 - It's important to all of us (multiple stakeholder) to be involved and informed
 - Regional Growth Strategy – need to follow local government
 - No local government laws + ALR law/power its with BC government (need to advocate)

- Blue dot movement –advocacy to local government
- Water sustainability act.
 - Room for involvement in regulations
 - Webinars Canadian Freshwater Alliance in spring
- BC has no SAR legislation (Wilderness committee)
 - More people need to be aware, too much spin.
- Green infrastructure and ecosystems evaluation (Metro Van working on this, broader approach)
- Local government is important (they can have a big influence)
 - But there's need for advocacy to all government levels
- Developments need to fully assess impacts at local level
- Sending info (e.g. newsletter to MPs (fee, inform))
- Broader ecosystem approach (regional, landscape)
- Federal government needs to Δ
- Envir. Litigation fund
 - Down in money (issue), need to change.
- More networking with local government staff (eg. Help the out)
- Need to stop having to put out little fires. We should be moving forward +beyond old problems
- Book – Don't Be Such a Scientist (better/easy communication)
- Use international pressure to influence fed + prov (wetlands international, UN)
- Integrated storm management process (eg streamkeepers)
 - Good avenue to change at local government
- Carbon credits (eg. There's research, their value is large)
 - Can be involved at local government
 - Be based on environment not just economy
 - Education/awareness
- Public Awareness/Behaviour
 - Give worst case scenario (urgency)
 - How does something impact me?
 - Simple language
 - Restoration/education at public schools in SUV driving communities
 - Connect them to environment
- Need social scientists to develop programs (eg. Cultural norms)
 - Need to measure effectiveness
- Ed. At an early age that is effective!
- Use multimedia (video)

Communication Hub

- Too many tool? Too many groups
- Search engine for area
- Blog or network for Lower Mainland with all the groups or region

- Connects collective websites
- Lots of overlap between groups eg. Restoration wetlands, streamkeepers
 - Network for all?
- Need to go beyond facebook
- Community model works. Face to face is best
- Project sharing, how to help
- How to communicate hard data?
 - Mapping
- Need updated, clear websites to communicate
- Local restoration projects on umbrella site new chapter
- Current
- Political if too big of umbrella group
- Need for corporations on enviro side
- Inclusive eg Banks
- Follow up meetings to this event.
 - Keep momentum going
- Newsletters good for following up after community events
- Capacity for communication within non-profits
- How to keep interesting/stand out
- Take advantage of linked-in. Even for this group
- Twitter.
 - Good for new contacts
 - To the point
- Community based social marketing survey. How to get message across. There are classes available for groups for better social marketing.
- Competing events at same time
- Relationships with reporters/media
- Easy to communicate in smaller communities
 - Gap in metro van
 - Scale issue
- No real coalition in MetroVan. Eg. Community advistors with DFO or Fraser Valler Coalition
- Bad to divide into groups e.g. wetland network, stream network, invasive network.
 - Too much to be part of all.
 - Wetlands is too broad
- Website/forum with volunteer work for all organizations.
- New connections.
 - Volunteer opportunities.
 - Connect them
 - Projected growth.

Appendix 7- Post Questionnaire

- 1) Did you gain insight into barriers and opportunities for wetland protection/conservation in the Lower Mainland? Please explain.

Total= Yes: 44 No: 4 Unclear: 3

- a) Lack of organization to set many ENGO joint priorities especially to get government to better conserve and protect wetlands
- b) Yes, looking at citizen science and capacity and funding. Need higher level on top down support in local government.
- c) Yes, though I had learned about many barriers through school, it was good to hear about the influx + importance of citizen science (though I wonder how scientifically robust it is)
- d) Private ownership, particularly by developers.
- e) Somewhat, good opportunity to understand range of stakeholders and their interests.
- f) Yes, some of the new programs/initiatives. Not sure I learned anything new re-barriers.
- g) Barriers→ need more management structure. Opportunities→ 50 million wetland funding
- h) Yes, how to reach city councils and planners
- i) Somewhat. I found this workshop to have a lot of information on funding, policy, etc, but perhaps could use more practical information. (eg tips on applying for funding or engaging the public)
- j) Not really, maybe its because I am in school now but I feel like I've heard this before. Speakers weren't clear on exact issues or things they overcame.
- k) Yes, the different perspectives of the various groups shows the diversity, but they also highlights the common threats throughout the province on this issue.
- l) Always helpful to meeting face to face. CWS funding of interest
- m) Protection not so much
- n) Yes, see # 3 below
- o) Lack of awareness of the importance of wetlands. We have focused too much on trees and not enough on how trees started and their need for wetlands to survive.
- p) Perhaps policies are, at present, more a barrier than a mechanism for moving forward.
- q) The understanding at all levels as to what protection policy is indeed in place and how it is intended to work. Glossary of terms that have meaning.
- r) Yes, pleased to hear about SCCP and the work they are doing with local government on SARA. Think this is a great opportunity for increased protection of the ecosystems the lists species depend on.
- s) Yet to learn and explore more
- t) Learned barriers: nostalgia for old days (we are never going back there) need to move forward. Opportunities: connections with local gov't to influence policy and instruments eg OCP. Partnerships with academic institutions a repository for wetlands institute resources
- u) Yes. Barriers- lack of funding for stewardship groups. Opportunities- collaboration with like minded groups (share info/ experiences)
- v) Organizations. Funding.

- w) Yes funding and presentations
- x) Zoning bylaws are base and changeable, until politicians become motivated, wetland loss will continue for agriculture to expand and for housing as we continue insane population growth.
- y) Some insight
- z) Not as much as I hoped
- aa) Yes, need for further group collaboration and a definition of the steps of progress required for conservation goals through NGO/government projects.
- bb) I didn't know that SARA is applicable on private property
- cc) I felt that opportunities was relatively, well covered, but that we didn't address barriers, (or go into discussion about how to overcome barriers).
- dd) Yes the workshop provided opportunity to build communication between groups.
- ee) Yes, from Ivy Whitehorne's talk and also from comments made during the panel discussion. Short memories seem to be an issue.
- ff) Barriers- need to navigate each municipality differently. Opportunities- once you understand how to navigate them, there are opportunities.
- gg) Yes. Many opportunities and an understanding of overcoming communication barriers.
- hh) Pamela was great! Excellent insight into SARA.
- ii) Yes, a sense of the level of fragmentation (lack of collaboration) among stakeholders.
- jj) Yes, we are a small organization who struggles with getting information out and volunteers in to our organization, so was good to see some ideas for solutions.
- kk) Yes, learnt some funding opportunities.
- ll) Yes, was great to hear from gov't groups on ways to talk with decision makers.
- mm) Yes, needs to be more effective two way communication/collaboration between the stewardship community and local/regional government.
- nn) Yes, especially in awareness of how government operates
- oo) Yes, although it is clear there are different issues/barriers depending on the location/municipality where the wetlands are located.
- pp) Yes, priorities with respect for local government buy-in + overall awareness are similar to these in the Okanagan, where I have more experience.
- qq) Yes, degradation + understanding ability to coordinate between groups/agencies etc
- rr) Yes, it was interesting to find out what other organizations are doing. It was particularly interesting to hear about citizen scientists.
- ss) Problem population growth
- tt) Yes, there are a lot of steps to take before major changes can take place.
- uu) Otto Langer is spot on. Protection- biggest challenge when Metro did not map the wetland crumbs for SEI- municipal staff do not recognize need to protect if not mapped.
- vv) Yes, it was good to hear about how to approach government to get stuff done.
- ww) Yes, citizen engagement, council support, quality data, higher level opportunities, and funding. Opportunities- partnerships between groups to fill expertise gaps, provide better service and opportunities for volunteers.

- xx) Yes, as got updates on initiatives on a number of different fronts and how other agencies approach problems common to many wetland advocacy agencies.
- yy) Yes, coming from the eastern Fraser Valley, it was nice for meeting other organizations for collaboration.

2) What do you see being the next step in protecting wetlands in the Lower Mainland?

- a) Quit talking and implement policy that exists and maybe enforcement and protection the back bone of that policy.
- b) Education and increasing awareness of their values and ecosystem services as well informing policy makers and government of any and all legal requirements to maintain/preserve, save and tools for local government.
- c) Pushing for already establish policies to be followed or/and enforced
- d) Lobby local government to protect them.
- e) Identification of key priorities, to focus limited dollars... potentially at a local level through establishment of working groups.
- f) Engaging the broader partners, use of social media, indicators, state of wetland reports. Lots for better municipal, provincial, federal protection- laws, regulations, etc, + staff to implement!
- g) Construct a list of action items (list all current efforts and link connectivity)
- h) Awareness programs to increase support and restoration
- i) More collaboration between difference groups/levels. More public awareness!
- j) Public awareness
- k) Working with the newer elected officials throughout the regional districts to deliver a consistent message about the economic and social value of wetlands to their community.
- l) Funding and projects are good, acquisition is in my view a priority
- m) Make it illegal to destroy wetlands.
- n) More public engagement
- o) Keep building awareness. Find ways to mutually support each organizations education programs
- p) Disallowing development of wetlands locally, provincially, federally.
- q) Not compromising even our small wetlands if a small wetland has limited value so do our large ones.
- r) Increased communication and education about where wetlands are in the Lower Mainland and their importance.
- s) Active participation in various organizations that advocate similar purpose in protecting our environment
- t) Restoration partnerships/networks with resources (time of volunteers with ENGOS and efficiency of approvals)
- u) Funding environmental volunteers to take action to restore and conserve wetlands. Focus on grassroots environmental organizations in engaging the public.
- v) Use the funding. Get exposure with local govt.
- w) Educating the general public and politicians. Awareness will bring progress.

- x) Much increased information to inform the public- they ensure political action at – provincial and municipal levels.
- y) .
- z) Put some teeth into protecting wildlife management areas.
- aa) Connecting NGO projects with avenues in government to support (eg assess the needs of NGO in a concise list of “asks”)
- bb) We need to get wetlands out of private ownership if those lands are at risk of development. Can we lobby for a wetland conservation fund for the purchase of wetlands (not just restoration)?
- cc) Moving some of the responsibilities/land that is currently on NGO’s into municipal and provincial government.
- dd) City of Burnaby, to hire a stewardship volunteer coordinator
- ee) Addressing how predicted changes in climate will influence wetlands.
- ff) Protective legislation and enforcement
- gg) Better communication between organizations/citizens/public government. Better use of resources (sharing/collaboration)
- hh) Acknowledgement (financial: political: socially) for ecosystem services provided by wetlands. Increased awareness. Enforcement of regulations.
- ii) Umbrella organization in lower mainland/Fraser Valley to improve situation in 1 above.
- jj) I think we need to engage the general public with the importance of wetlands.
- kk) A coordinated approach; perhaps develop a consolidated mission/strategy for a core group, made up of all grass-roots organization representatives.
- ll) Better policy/legislation (sp?) that protects wetlands.
- mm) Better implementation of existing policy/enforcement. Specifically inviting social scientists to this table to ensure on education/outreach/engagement strategies are indeed effective + enduring.
- nn) Mapping so we know where they are. Could use a process like what Kelowna used a few years ago
- oo) The land has to be protected from infilling in some credible form ie bylaws, acquisition, etc.
- pp) Locally driven, but regionally supported.
- qq) Strategic acquisition, collaboration of partners for visioning, implementation + enforcement of regulations at the same time as education outreach, enhancement- fostering a sense of value in place.
- rr) .
- ss) Goal co-habitation
- tt) Education
- uu) Building a strong coalition across the region to generate into, build awareness, get political, and most important, bureaucratic buy-in at local gov’ts so the right people can be hired to apply policy and manage on the ground.
- vv) Need to get more wetlands under protection and efforts to restore them underway.
- ww) Coordination between groups. Priority, will, spearhead groups, government buy-in.
- xx) Coordinated purchase programs coupled with strict protective legislation.

yy) More collaboration!

3) How has this session helped in your wetland conservation objectives? Do you plan to take action on what you learned today? If yes, please explain.

Total= Yes: 42 No: 2 Unclear: 7

- a) Convince all stewardship groups that you have to protect what you have.
- b) This helps to provide information and spark ideas
- c) I plan on utilizing what I've learned today in future restoration projects and as ways to engage the general public
- d) Introduction to possible partners
- e) Yes, to some extent... I am less involved in conservation and more in creation and restoration. I saw some good frameworks for understand.
- f) Will help me in my classes, engaging university students.
- g) Ensure that my effort as maxed
- h) Awareness of municipal hurdles and processes. May help direct actions to gain support for our restoration project.
- i) In some ways- the funding lecture might turn out to be useful. Also, there was some practical information provided in each lecture.
- j) I think I'll contact more stewardship groups.
- k) Yes, to continue working with different community groups and organizations to assist their projects and advocacy, sharing info, like the Ivy Whitehorne presentation, in Stream Talk newsletter.
- l) Networking helpful
- m) We have been doing since 1988.
- n) Communication is key to success. Communication at all levels: between group, within group, objectives, results of efforts, available resources, etc.
- o) Fight harder to save unprotected Burns Bog. Other peatlands through awareness- education programs-events.
- p) I plan to continue efforts to join stewardship groups and local governments on urban water issues, which could, ideally, to extend wetland work.
- q) Will continue on works showing where wetlands keepers and streamkeepers share common values.
- r) .
- s) I need to connect more to people/organizations to better understand because I am new to the endeavor.
- t) Broader perspectives. Specific new ideas eg. funding, green team, local gov + tips.
- u) Got to meet people that I will stay in connected with and potentially work with!
- v) Gathered focus for leadership of an array of local groups.
- w) Yes to apply for funds to re-activate the salmon river counting station built and abandoned by DFO on private farmland. We need funds to renew the lease which DFL let expire.

- x) It has confirmed that we are on the right track; our need is for more young “manpower”. Our youth groups are “young” learners rather than young workers.
- y) .
- z) .
- aa) Helped with networking with other organizations.
- bb) I like the idea of using public amenity funds from developers for wetland conservation.
- cc) Good to network with other groups/organizations→ hope to contact them after today.
- dd) Yes, will work on building more social capital for our restoration projects.
- ee) No
- ff) Helped me learn what is happening in the lower mainland
- gg) Yes. Greater roll in community, more volunteering through a greater variety of organizations. Environmental stewardship.
- hh) .
- ii) Plan to look into community based social marketing resources.
- jj) I will definitely use the 5 steps of engagement in our future endeavors.
- kk) Yes, to engage with local city council to discuss development- based funding opportunities.
- ll) .
- mm) The Coquitlam River Watershed roundtable is currently preparing its watershed plan for the lower Coquitlam River. I will identify wetland restoration opportunities with the CRWR and let them know about the new funding available from the CWS National Wetland Conservation Fund.
- nn) I now have a better awareness of a framework for approaching funding groups. The “settling pond” activity was informative – again - thinking structure.
- oo) Not really
- pp) Identified opportunities to support partnerships.
- qq) Not sure
- rr) .
- ss) Nature guiding to stewardship growth
- tt) Yes, continue to educate the youth and inspire them to value, respect, and protect wetland and the environment.
- uu) Yes, we have buy-in (from university presents- his idea) to move on idea of an institute of wetland studies. Yes, will continue with wetland and riparian restoration and creation on the Langley campus.
- vv) A lot of what was said today was review for me, but it was good to network with like-minded individuals.
- ww) Yes, coordinate with other groups that are involved in volunteer habitat, restoration opportunities to provide the species at risk expertise aspects while also increasing awareness about SAR and our program.
- xx) Will set up meetings with some organizations contacted
- yy) Yes, I plan on including western groups in Precious Frog (Oregon Spotted Frog) education and outreach.

4) Did you network with others whom you expect to collaborate with in the future? If yes, please explain.

Total= Yes: 40 No: 5 Unclear: 6

- a) Not much!
- b) Yes, tied with Evergreen's water quality "atlas" program with City of Surrey and LEPS
- c) Hopefully, Got to talk to lots of different people I know and didn't know, but as I'm starting out my career I'm not sure who will be in my future... probably many people that I've met.
- d) Yes, project to establish vernal pond on crown land managed by LFN. Hope to add other partners to LFN, BC Min FLNO, and DU
- e) Some, but mostly networked with individuals who I know from other work/roles and over the years.
- f) To some extent, contact with potential partners
- g) I will be in contact with a few people. Guidance on experience in construction of wetlands /invasive removal.
- h) Yes, former students may be working on restoration project, that can use some support.
- i) .
- j) No could've used more networking activities
- k) Met others and it would be good if the BCWF could act as a distribution of information and future sessions/projects that participants are involved in.
- l) Yes, working on a potential project
- m) I met a lot of people who I will call later
- n) No new connections but ongoing interaction with other was re-stimulated.
- o) .
- p) Yes there exists a lot of cross-over between urban watershed work and local wetland groups. Hope to work with Seymour salmon society education initiatives, city of surrey on training volunteers to be long term stewards in Tynehead Park.
- q) So many great faces, passion renewal
- r) Yes, met people that I have emailed with many times. Great to finally meet them in person and to meet new people.
- s) A little or handful of these people. Please help me connect with them. My program with BCIT is in environmental Eng technology. I am looking for a sponsor to my research project.
- t) Not from area but would love to call folks so look forward to contact info.
- u) Yes, I run volunteer activities and got to meet a lot of our collaborators.
- v) Turtle recovery
- w) Yes, reps from FVRD, BC Nature, Langley Field Naturalists, FV Watersheds Coalition.
- x) Yes- Transcanada trails reps! Confirmed continuing co-ordination with LEPS.
- y) Some networking, I'm new to this.
- z) Yes- talked to various attendees
- aa) Yes, working with uncover your creeks coordinator
- bb) Yes, I met staff at another municipalities and also made a connection with an NGO
- cc) Yes!! Good to know of other organizations that might want to collaborate, provide funding, share materials and/or lessons learned, etc.

- dd) Yes, we want to engage with the community mapping network.
- ee) Perhaps, though not as extensively as I would have hoped.
- ff) Yes, I learned who is involved in restoration, identified future employers.
- gg) Yes, networking with future volunteer and career opportunities, as well as past.
- hh) Yes. Many partnership opportunities for current and future projects.
- ii) Yes, several organizations with respect to wetland conservation
- jj) I think that we always meet like minded people at these events and almost always end up engaging with them in some way.
- kk) Yes, many different focus groups.
- ll) .
- mm) Reconnect with municipal staff and BCWF; old friend and made new one, both in different fields (restoration, water resource management). Hoping to work with RAR (riparian areas regulations) again but at the provincial level!
- nn) Yes, City of Burnaby, some of the streamkeepers.
- oo) Yes, will continue to build relationships/partnerships with groups based out in core region (fraser valley)
- pp) Yes, I was introduced to groups I have followed online + others who may be candidates for funding.
- qq) Yes, will continue to foster partnerships in Fraser Valley Region
- rr) .
- ss) Yes, fish and wildlife endangered species.
- tt) Yes, I received several good leads of collaboration and partnerships.
- uu) Yes, SCCP, TWU, Langley Naturalists, and all the unusual suspects.
- vv) Yes, it was great to see other people in the restoration field
- ww) Yes, other groups that do restoration work whose specialty is getting large #'s of volunteers out but may be lacking in different expertise areas, we could offer SAR education component.
- xx) Yes, renewed some prior contacts.
- yy) Yes, list of groups to invite to precious frog

- 5) What else could be added or deleted from this workshop? If you were to attend another workshop for conserving wetlands, what training/speakers/resources would you like?
- a) Evaluation of gov agency policy and need for enforcement and conservation
 - b) Perhaps some case studies as following a process of wetland protection + protection + monitoring.
 - c) More of a training/workshop session would be nice.
 - d) ?
 - e) Technical/ecological type discussions, innovations, etc
 - f) Speakers/dialogue → get gov't decision makers onside. Followed by field trips.
 - g) 2 day workshop. Action items list. Guide to what exists (in your region etc)
 - h) More case studies

- i) Could use more time to network. The panel discussion was interesting but maybe could be better organized (just a lot of questions from audience that steer away from the discussion- but often hard to avoid that)
- j) Background on Elk Alliance didn't talk enough on framework but had a lot of background on citizen science? Add overarching goal & narrower objectives/theme for more directed dialogue.
- k) I felt this was well organized. It is always a challenge to find speakers about every topic and reaching a wide audience is always challenging even in the age of the internet. Effective communication is key and difference messages in different ways to reach people (not just twitter)
- l) Policy/decision makers attend + listen to NGOs etc
- m) Sound could have been better
- n) .
- o) A better P.A. system. Lee-Anne Walker was excellent. Hearable- missed some of the visuals- too low for me to see at the back of the room.
- p) Less presentations, more breakout opportunities.
- q) Where will PPT's be housed?
- r) .
- s) Excellent topics. I think with lack of time to network with others. We need to know each other more not just on theory but enhance human relations.
- t) Found the number of people and noise in the room very challenging for breakout groups to listen. Would nice to be in the field outside.
- u) Add contact info next to names of participants!
- v) Case studies.
- w) Reps from Metro Van, Mayor, Developers(UDI) eg Nancy Wilkins (retired so she would be willing) or Mike Pearson RPBio
- x) Specific ideas about fundraising- not just the methodology but "funding sources" themselves. PS after lunch good! But more options next time.
- y) I found the quality of speakers to be quite uneven: Lee-Anne's information was very old wisdom.
- z) Get senior levels of government to attend and speak. BC and Federal. Have more small group breakout sessions.
- aa) Great format as is
- bb) Maybe don't provide people the opportunity to get on a soapbox about semi-related topics and sideline a good discussion.
- cc) Think would be helpful to have more time for unstructured mingling between attendees, or introduction activities to learn more about what other people are doing (through difficult with a group this big!!)
- dd) Several speakers talked too fast. Perhaps have slides available on a website for later review.
- ee) Introducing people who work on similar topics or in the same area. Also sending ut the homework in advance would be helpful.

- ff) Breakout session could be shorter length of time and with smaller groups... maybe 2 in the day instead of 1 long one.
 - gg) More government/cabinet/council
 - hh) Facilitation of group discussion- more guidance. Breakout rooms- large open space not conducive to breakout sessions. Speaker volume hard to hear at some times.
 - ii) A working social networking process for attendees to join!
 - jj) Funding writing how to's may be helpful
 - kk) More resources from gov't/city authorities that can speak to policy and can influence developing on any outcomes.
 - ll) Would have liked more networking opportunities
 - mm) Social scientist(s) to evaluate effectiveness of our education/outreach/awareness programs. Great venue except for acoustics hard to hear most speakers, including during our breakout sessions. Wish our lunch/refreshments leftover materials had been composted☺
 - nn) I'll need to think about this more but one thing might be Grant Writing 101 kind of session. How do you learn to pitch ideas and projects?
 - oo) For a group this size the breakout groups need to be more specifically managed or maybe stick to more speakers + group discussions/questions.
 - pp) Good to have perspectives from a variety of groups with different concerns around the same issue
 - qq) This was policy driven/focused. May be beneficial to have side group talking about requirements (permits, stakeholders...) from an on the grounds action perspective. ("How to")
 - rr) .
 - ss) State your goals
 - tt) Group discussions were a bit long and hard to manage ideas, thoughts, etc. It seemed there was a lot of opinions, but hard to agree to action plans.
 - uu) More on overarching trans boundary initiatives- PJV, Ramsar, etc. More on trans boundary cooperation between municipalities on wetlands and watersheds shared across jurisdictions, eg half our campus is city of Langley and the other is township.
 - vv) Great speakers and everything was well run. Great workshop.
 - ww) .
 - xx) Could add a speaker from another jurisdiction (say us [metro Vancouver]) where wetland conservation/ restoration has been very successfully implemented.
 - yy) Better audio, hard to hear from the back
- 6) Would you attend another similar workshop in the future? In 2016?
 Total= Yes: 44 No: 2 Unclear: 5
- a) Yes
 - b) Yes
 - c) Likely if I had time

- d) Yes
- e) Yes, potentially in 2015
- f) Sure
- g) Yes
- h) Yes
- i) .
- j) I think these could be very useful but don't think I took much from this workshop maybe it was too broad?
- k) Yes, and I plan on attending the SFO SEP Community Workshop in may 2015 in Port Alberni.
<http://workshop.pskf.ca>
- l) Possibly
- m) Yes
- n) Yes
- o) Yes
- p) Yes
- q) Sure. The SEP (salmon enhancement/streamkeepers) workshop is coming May 15-17 in Port Alberni, Province wide workshop.
- r) Yes.
- s) Yes I am looking forward to attend your seminars in the future.
- t) I'm going to repeat this perhaps I my backyard. Transport the format as a system for pushing wetland conservation and restoration agenda forward
- u) Yes! I really appreciated the strong showing of grassroots organizations at this workshop.
- v) Yes
- w) Yes
- x) Yes, but next time I'll confirm my intention to attend more effectively!
- y) Unlikely
- z) Depends on the program.
- aa) Yes
- bb) Maybe in a few years to see what has been done since this workshop.
- cc) Yes! Yes!
- dd) Yes
- ee) Yes
- ff) Yes
- gg) Yes
- hh) Yes, great gathering. Perhaps a partnership with LEPS- assist in hosting.
- ii) Yes
- jj) Definitely
- kk) Yes
- ll) Yes!
- mm) For sure! Thank you!
- nn) Yes
- oo) Would depend on the speaker list (which is usually how I decide to attend any workshop.

- pp) Definitely
- qq) Yes
- rr) .
- ss) Yes
- tt) Yes
- uu) Yes, should be an annual gathering on Feb 2.
- vv) Yes! For sure😊
- ww) Yes
- xx) Yes
- yy) Yes

7) Is there anything else about the workshop you would like us to know?

- a) Lack of history on stewardship from 1970s to 2015 and what has worked and not worked and the key role of gov (EC, DFO, MOE, FNRM) agencies and seed monies. Appears to have great intent but totally inadequate implementation of policy + law + real planning.
- b) .
- c) .
- d) .
- e) .
- f) Good start
- g) Color coded name tags (consultants, gov't, students). 15 sec interaction speed talking (sign up and do at end). Surrounding sound system.
- h) .
- i) Lunch was really delicious, the event was really well organized and the speakers were well chosen. I think this workshop might have been very helpful for some but less so for students (as I thought it might be)- except for the networking opportunities.
- j) Needs more direction, too broad and not much focus on provincial gov't.
- k) .
- l) .
- m) Good attendees
- n) .
- o) 1. "You can't move your cause forward without money. Kim Klein, grassroots fundraisers. 2. Keep working on "the Future of Wetlands in the Lower Mainland" until you get it perfect, it's important. 3. Invite potential funders of wetland projects. 4. Invite potential funders who don't understand that if they don't fund and support wetlands their work is wasted. 5. Promote ways to plan, create a campaign to save wetlands. 6. Invite selected industry decision makers who don't understand a healthy environment is key to a healthy work force. 7. Disappointed I couldn't hear the speakers.
- p) Scheduling, great. Things moved along well. Food was good.
- q) I should move to front of room, sound of speakers if muffled. Not as clean to hear. I thought I might learn more about local wetlands and the specific challenges they are facing and what we can do to help them. Day is not over, so maybe more will come (comment written at

- lunch). I was hoping for more talk on protection but it was more leaning towards getting funds and advice on restoration. Policy- protection. When policy fails- restoration or at least a two year attempt. And then Otto said it clearly!
- r) .
 - s) I think the location of the power point; speaker is so glaring that the background is blurry due to lighting. Everything is good but with just minor things to consider in the future.
 - t) .
 - u) It would have been beneficial to emphasize putting names on the morning activity sheet. Most people didn't put their names on their responses and knowing who wrote what. Would have helped in building connections. For example I saw responses that illustrated a strong like-mindedness, but I have no idea who they are. Excellent sticking with agenda and time. Well organized. Wonderful workshop! Thank you😊
 - v) Might have more white-heads on panel. Last discussion groups too long. Better to shorten than summarize to everybody. Thanks for organizing and lunch!
 - w) A great success. Well done staff! Neil, you did a fine job!
 - x) .
 - y) .
 - z) .
 - aa) .
 - bb) Great food. Thank you for the bus from the skytrain. Good mix of speakers.
 - cc) .
 - dd) Perhaps start a list serve to connect this group
 - ee) .
 - ff) .
 - gg) Very good, very good speakers, informative
 - hh) .
 - ii) .
 - jj) Many thanks for putting it together. Kudos to all who worked so hard at the organizing
 - kk) Well run. Panel session was good. Perhaps more time could be allocated to it.
 - ll) .
 - mm) More time for overall Q & A as large group
 - nn) Thank you for putting this together. It was extremely valuable.
 - oo) .
 - pp) Depending on the desired outcomes of the workshop, smaller groups may be beneficial... perhaps two workshops: Metro Van and Fraser Valley
 - qq) May want to include a First Nations component- level of government was missing. Elk River Alliance speaker was fantastic! She really drove home the ideas of storytelling developing sense of place space meaning of time.
 - rr) .
 - ss) Present overviews, visual of accomplishments and how the positive results were done.
 - tt) Great collaboration of ideas, people, organizations, etc. Thanks for organizing.
 - uu) Thanks for expanding the registration

- vv) More time to fill out the sheets would be good. Hard to do during talks or on breaks when you want to network.
- ww) The volume on the microphone was sufficient to hear a lot of what the speakers were saying. A different venue would be better to have a better view of the screen. Speaker and for breakout session ex) classroom setting- lecture theater for large groups, smaller classrooms for breakout session. Metro Vancouver Parks Workshop 2014 setup.
- xx) .
- yy) Lunch was great☺