



Watershed Stewardship



*"Protecting and restoring
the natural environment
through education,
cooperation and action"*

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Outline

- ▶ LEPS
- ▶ Watersheds
- ▶ Stewardship and actions
- ▶ Invasive species control



Introduction: LEPS

- ▶ Non-profit, non-government, environmental organization
- ▶ Started in 1993
- ▶ Full time and seasonal staff
- ▶ Core programs:
 - ▶ Watershed stewardship
 - ▶ Agricultural stewardship
 - ▶ Restoration
 - ▶ Education

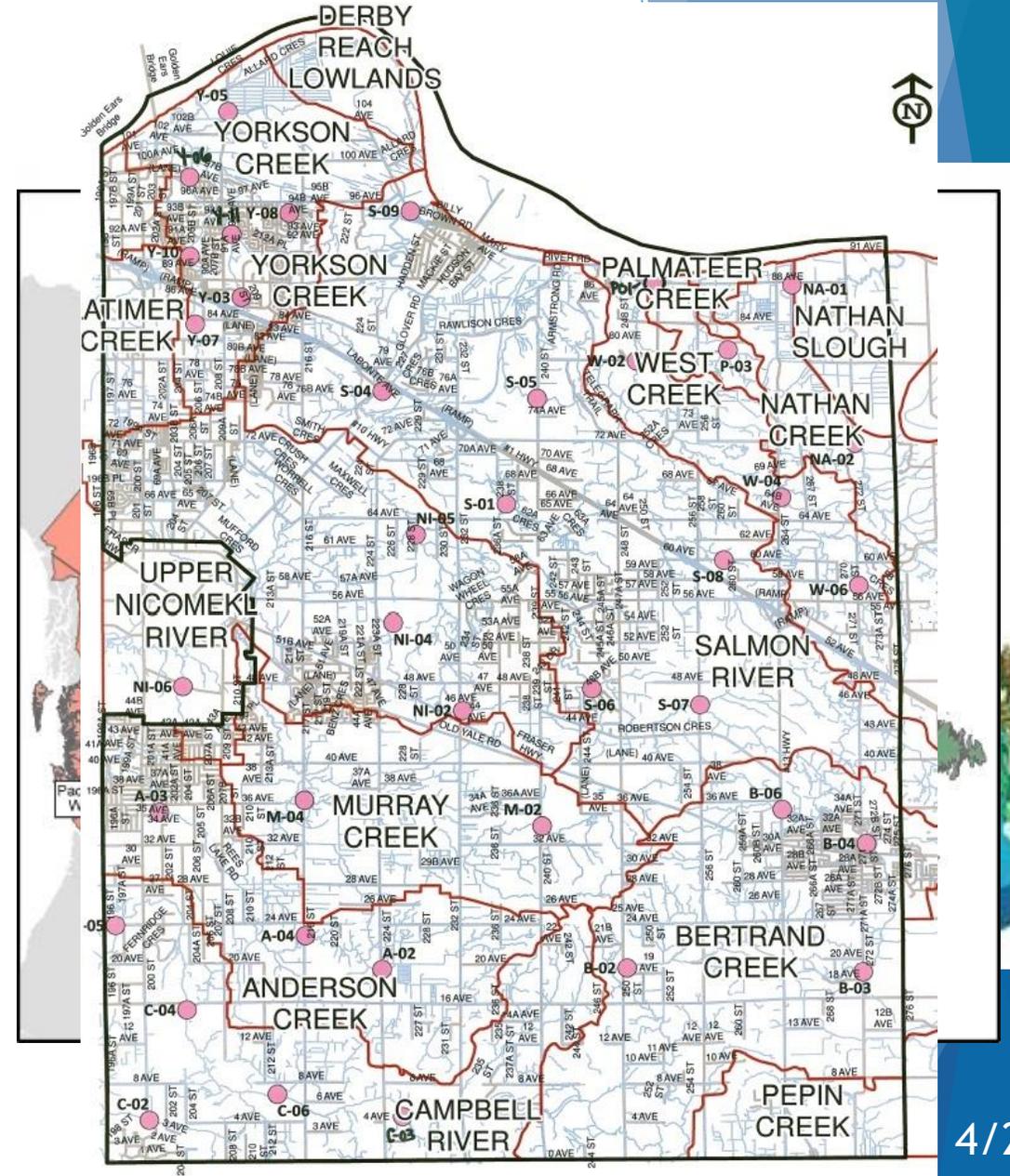


Introduction: Watershed

- ▶ *"that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."*

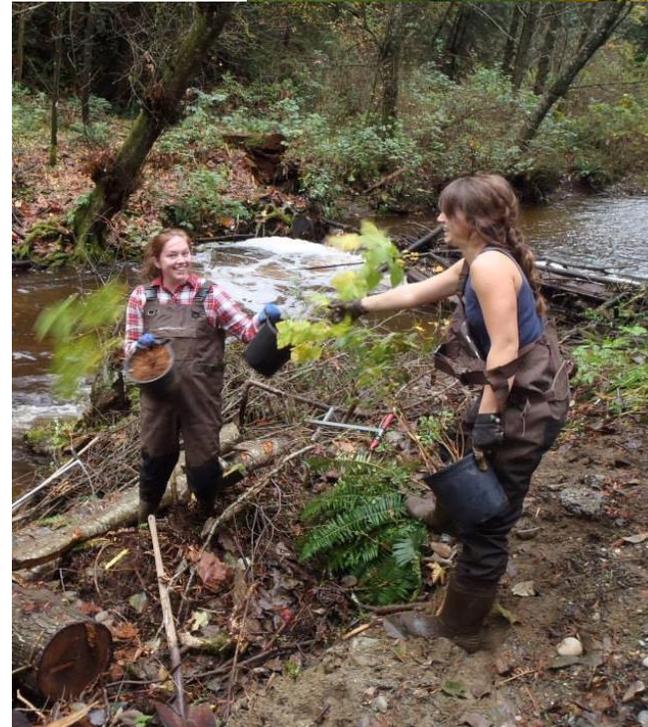
- John Wesley Powell

- ▶ Canada has 5 major watersheds: Pacific Ocean, Arctic Ocean, Hudson Bay, Atlantic Ocean and Gulf of Mexico.
- ▶ Langley has several watersheds; largest being Salmon River, Nicomekl River, Little Campbell River, Bertrand Creek, Yorkson Creek, West Creek and Nathan Creek



Introduction: Stewardship

- ▶ The careful and responsible management of something entrusted to one's care.
- ▶ Watershed Steward: A person who cooperates to maintain or improve the overall health of a watershed.
- ▶ But what is it really...?
 - ▶ Hands on experience to learn new skills and get dirty!
 - ▶ Your actions that create positive change
 - ▶ Meet new people and make new connections



Stewardship Actions

- ▶ Education/outreach
- ▶ Advocacy
- ▶ Surveys and monitoring
- ▶ Garbage clean ups
- ▶ Tree planting
- ▶ Invasive plant control



Outreach/education

- ▶ Share your experiences with others
- ▶ Educate your family and friends
- ▶ Ripple effect



Advocacy

- ▶ Working to influence public policy in social, economic, political, and cultural spheres in order to bring about justice and positive change.



Surveys and monitoring

- ▶ Can often be done in your own backyard
- ▶ Usually on your own time
- ▶ Monitoring programs include birds, salmon, water quality, bats...
- ▶ Experience can be can be expanded with further investigations and use of data collected (great for resumes... 🤪)



Surveys and Monitoring

- ▶ Monitoring programs are our most barrier free activities
- ▶ Important baseline information to make responsible decisions in the future

- ▶ **Wildlife:** Bats, Salmon
- ▶ **Birds:** Backyard birds, Community bird counts
- ▶ **Lichen**



Wildlife

- ▶ Bats
 - ▶ a climax species in our nocturnal food web
 - ▶ Monitoring is at dusk or dawn from backyards or walks around neighbourhood
 - ▶ Monitoring numbers and locations
- ▶ Salmon
 - ▶ Keystone species
 - ▶ Surveys during spawning season: late Oct. through to early Jan.
 - ▶ Daytime only due to safety issues
 - ▶ So far only Yorkson Creek in Walnut Grove



Birds

- ▶ Several bird counts organized throughout the year both community and backyard
- ▶ Establishes baseline information and great indicator for other environmental issues
- ▶ Don't need to be an expert! They need recorders, spotters and drivers for many of the surveys
- ▶ Two great place to start:
 - ▶ Project FeederWatch (on now)
 - ▶ Derby Reach Brae Island Park Association count in late winter

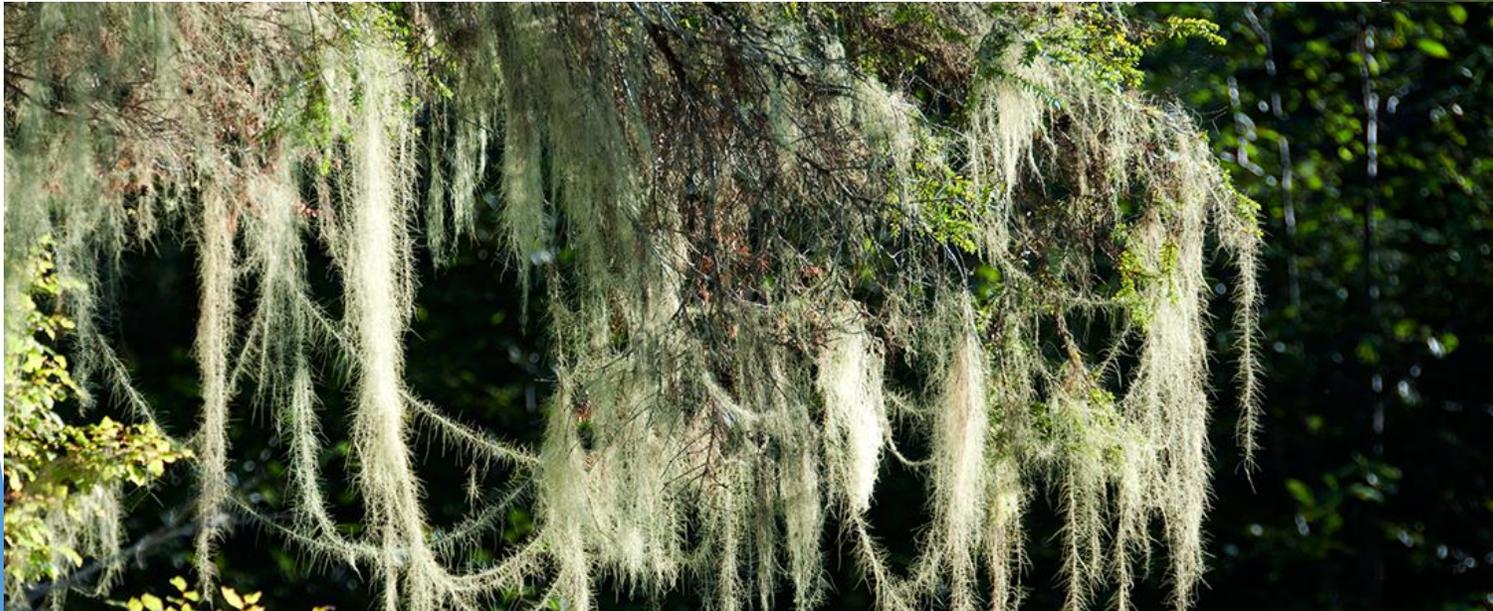


Lichen

- ▶ Fabulous symbiotic relationship between fungus and algae
- ▶ Some forms are not tolerant of poor air quality



Photo by Phil Bendle



Garbage clean-ups

- ▶ *“Garbage begets garbage”*
- ▶ Hazards to local wildlife and people
- ▶ World problem – Great Pacific Garbage Patch



Tree planting

- ▶ Yeah, so... planting trees.



Invasive plant control

- ▶ Invasive species are non-native species that thrive in our ecosystem without the checks and balances that would be found in their native habitat
- ▶ Control of invasive plants in our natural spaces is essential to ensure their ecological integrity – plus it is really fun!



Economic impact

- Agricultural impacts:
 - Decline in forage quality
 - Animal health/poisoning
 - Food production
- Infrastructure damage
- Property damage



Health and safety impact

- Toxic plants
- Some cause burns
- Allergies
- Damage to local infrastructure
- Fire hazards
- Risk of falling trees



Ecological impact

- Loss of biodiversity
- Altering natural ecosystems
 - Loss of wetlands and streams
 - Displaced nesting habitats
 - Disrupted food webs that support both plants and animals
- Increased need for chemical control



Volunteer Groups and Environmental Associations

- ▶ Langley Environmental Partners Society (LEPS)
- ▶ Local stewardship groups
- ▶ Langley Field Naturalists (LFN)
- ▶ Metro Vancouver Park Associations
 - ▶ Campbell Valley Park Association
 - ▶ Derby Reach/Brae Island Parks Partnership Association
- ▶ Metro Vancouver Parks Ecological Restoration Team on *Meetup.com*
- ▶ Lower Mainland Green Team (LMGT) on *Meetup.com*
- ▶ Wildlife rescue organizations: Critter Care Wildlife Society/Raptor Ranch/Reptile Guy Rescue and Education Center...
- ▶ Great Canadian Shoreline Clean-up



Questions?

“Unless someone like you cares a whole awful lot, nothing is going to get better. It's not.”

- “The Lorax” by Dr. Seuss

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