



Salt Spring Island Water Preservation Society

FEBRUARY 2015 NEWSLETTER

Maggie Squires, Ph.D. - AGM Speaker

Maggie and the WPS board became acquainted through our mutual activities associated with the SSI Watershed Protection Authority, or SSIWPA*. Happily, our invitation for her to speak at the AGM was accepted as an opportunity to explore limnology (the study of lakes) with some avid WPS lake-watchers. Maggie describes her background below:

On a road trip from North Carolina to Alaska, a gas-stop at Muncho Lake in BC's Northern Rockies led to a job working at a lodge, then a camp job, and eventually to a Park Naturalist gig at the Liard Hot Springs Provincial Park. Hot springs, cold lakes and wild landscapes viewed from the back seat of a Piper Super Cub eventually led Maggie back-to-school. Trained in limnology and biogeochemistry, Maggie has contributed to scientific research into biogeochemical processes responsible for the diverse ecologies among the tens of thousands of lakes dotting the Mackenzie River Delta, NWT. Over twenty years, her study sites have included arctic, boreal, Laurentian, and South-Western BC lakes.

Recent projects have ranged from work on pristine lakes to human-altered lake aquatic systems, as follows: Assessment of change over five decades in water quality, hydrology, exports, and snow cover in seven Great Slave Lake sub-catchments; Evaluation of monitoring programs designed to detect effects of diamond mining on pristine arctic lakes; Investigation of impacts of fertilization on reservoir food webs; and Study of effects of iron mine effluent on lake productivity.

Passionate about teaching, learning, and creating a sense of belonging, Maggie has instructed courses at Simon Fraser University in World Ecosystems, the Geography of BC, Natural Hazards, and Organizing Communities. Her commitment to science, community, and education coalesce in volunteer work as a journal reviewer, scientist, and community service provider.

We are delighted to welcome Maggie as our speaker at this year's WPS AGM.

** The Salt Spring Island Watershed Protection Authority is a collective of elected officials, government agencies, and resident scientists working together to evaluate the water quality and water supply status of Salt Spring Island's lakes.*

Water Preservation Society AGM

Tuesday, March 10th 2015

Lions Hall

12:30-1:00 WPS AGM

1:00 Cookies and Tea

1:30 Presentation by Maggie Squires

Is Lake Colour Skin-Deep?

The talk will dive beneath the lake surface to explore the chemical mix that gives lakes colour and character, blooms and biological structure.

If you have not yet renewed your membership for 2015, please complete the enclosed form. If you will not be able to attend the AGM, please complete the Proxy Form on the reverse, and return it as noted. Thank you.



You Are Invited!

Water Conservation House Tour – Saturday, March 21, 2015

(a tour of island homes with water collection systems)

Water Fair at Farmer's Institute – Sunday, March 22, 2015. 10am – 3pm

The Water Preservation Society is collaborating with SSI Water Council (WC) and the Salt Spring Island Watershed Protection Authority (SSIWPA) to sponsor what may become an annual Water Fair.

The Fair will consist of booths sponsored by local water-related organizations and businesses that sell water-conservation products. There will also be food booths, entertainment, a children's area with entertainment just for the younger folks, and a series of lectures on water topics.

This event should answer just about any question that you might have about water on Salt Spring Island! It is being held on World Water Day, March 22. Everyone should know by now that the government is not going to solve all our water problems, and that residents must be involved in the solution. It is up to us all as citizens to work together. No one else is going to solve our water problems.

Watch for details of the Water Conservation House Tour and the Water Fair in the Driftwood, on posters, on the SSI Exchange and elsewhere, so mark the dates on your calendar and plan to attend.

See you there!

Three of our Gems - Salt Spring is blessed with a treasury of lakes



above: Cusheon Lake from Mt. Belcher



left:
Blackburn
Lake



right: Maxwell Lake



Your Septic System, Medications and You...

Please do not be alarmed! In this latest chapter, we shall once again be diving into the workings of that oft-forgotten but essential friend out in the back yard, the lowly septic tank. In previous issues of the newsletter, we have learnt a little about the biological processes of digestion and decomposition, that make possible the transformation of greywater from kitchens and showers plus 'blackwater' (human waste) into a harmless effluent that is dispersed into the soil of the septic field. Our topic today concerns some of the other, less obvious substances that we also introduce into the community of organisms living down there in The Tank.



WPS members continue voluntary work, monitoring tributaries that fill creeks flowing into Blackburn Lake - would you like to join them? Contact Maxine Leichter

If you or a member of your family have recently been prescribed any kind of strong medications for your health, the last thing you might be thinking of is your septic system. However, some pharmaceuticals that can be very beneficial for humans can also cause major unintended consequences to other living organisms, including those working away in your septic system, so taking a few simple steps in advance can prevent costly repairs later.

The human body does not completely metabolize medications, so they inevitably enter the septic system in body wastes. High concentrations of antibiotics and other medications are enough to kill or retard the growth of bacteria in your septic tank and drain field. These bacteria are necessary because they digest some of the organic matter and solids in the septic tank. If the tank bacteria are destroyed or their action retarded, the solids that slowly accumulate in the tank can build up much faster and can clog the drain field. If you expect to be taking medications, especially for long periods of time, here are some steps you can take to protect both your septic system and the island's groundwater:

- Minimize or avoid altogether the use of antibacterial soap, cleaners and bleach, as these products further stress the bacteria in the system.
- If you are taking strong medications, such as chemotherapy drugs, your tank may have to be pumped more often to remove solids that are accumulating rapidly due to the loss of beneficial bacteria. Your septic professional can take samples of BOD (biochemical oxygen demand) or TSS (total suspended solids) and recommend a management plan.
- If your septic tank gets too toxic, it may be necessary to use your tank as a holding tank during a prescribed treatment, meaning wastes would be pumped out of the tank instead of going to the field.
- Fill the septic tank with clean water after you have had it pumped out, in order to dilute the concentrations of the medicine residues when you restart the system.
- Design changes may be necessary to protect your drain field.

These design changes could include adding an effluent screen, which is placed on the outlet of the septic tank to limit solids exiting the tank. Since the effluent screen will need to be cleaned frequently, an alarm can be installed to indicate when cleaning is needed.

- An effluent screen is particularly helpful if you expect a lot of hair loss since hair can remain suspended in the wastewater and then get carried to and plug the drain field, causing its failure.
- Adding additional septic tanks or a pre-treatment device are other possible design solutions.

WPS gratefully acknowledges the excellent publications of the University of Minnesota, which informed this article.

<http://www.septic.umn.edu/factsheets/medicationsandseptics/index.htm>



OUR EXECUTIVE

| | |
|--------------------|-----------------|
| President | Maxine Leichter |
| Secretary | Penny Polden |
| Treasurer | John Borst |
| Directors-at-Large | Nolan Magnus |
| | Rodney Polden |
| | Usha Rautenbach |
| | Linda Steager |

CONTACT US

E-mail ssiwps@gmail.com

Online ssiwaterpreservationsociety.ca

Please pick up a
Thrifty Smile Card from us.



MEMBERSHIP

Membership dues are only \$15 for individuals
or \$30 for a family/couple.

Additional donations are very gratefully received, and help
to keep WPS active, effective and working hard to protect
our island waters. Tax Receipts are issued.

Please consider providing us with your email address so we
can notify you of WPS events that
take place between the publication of newsletters.

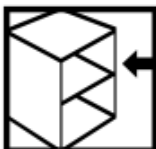
Current members - mail membership fee to:
Box 555, Ganges PO, SSI, BC, V8K 2W3.

New members - please request an application form to
fill out and return.



SSI Water Preservation Society

Box 555, Ganges PO
Salt Spring Island, BC
V8K 2W3



COUNTRY GROCER TAPES

Please put your tapes in **BOX #73**