



# *Salt Spring Island Water Preservation Society*

## **FEBRUARY 2014 NEWSLETTER**

We are very pleased to present Cate McEwen as a speaker at our Annual General Meeting. She will give a presentation on monitoring stream water



quality through citizen science using examples from Salt Spring and Mongolia. Cate is an environmental educator with a focus on wetlands and watersheds.

An island resident who works as an eco-mentor in the schools, she supports teachers and students to get outside, exploring and understanding the wonders of nature. As an educator, Cate's intention is to create the space for the learner to make a personal connection with the environment, through mind, body and spirit.

Salt Spring Island  
Water Preservation Society

### **Annual General Meeting**

**Sunday, February 23, 2014 at 12:30pm**

Lions Hall

## **Speaker: Cate McEwen**

Citizen Science & Water Monitoring -  
Stories from Salt Spring Island and Mongolia

If you will not be able to attend, please nominate a Board member as your proxy by: filling in, signing and returning the enclosed form to a board member or to P.O. Box 555, Ganges Post Office, SSI, V8K 2W3.

Proxy forms must be received by Feb 20<sup>th</sup>.

### **Maxwell Lake: Balancing Supply and Demand - Part Two**

In addition to St. Mary Lake (discussed in a previous newsletter article), the other major source of water for the North Salt Spring Waterworks is Maxwell Lake. Since Maxwell Lake is fed by a relatively small watershed, the Waterworks has augmented supply by diverting at least one creek that previously did not naturally flow into the lake.

It has been suggested that more water could be supplied over the dry months by raising the dam on Maxwell Lake to impound more water. WPS regards this as an unwise proposal. The potential cost of this huge project is unknown, but additionally the disruption to the natural cycles of the lake that this would cause might well result in the lake experiencing blooms of toxin-producing cyanobacteria, a fate that it has so far been spared.



The water flowing out of Maxwell Lake eventually contributes to the stream (Cranberry Outlet) that empties into the ocean beside Bader's Beach where it provides habitat for cut-throat trout and various other plants, animals, and insects.

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## Maxwell Lake: Balancing Supply and Demand - Part Two Cont'd

Reduced flows in this stream, caused by proposed future changes to Maxwell Lake, would certainly have a negative effect on important fish and wildlife values.

A further proposal put forward by some for obtaining more supply is by piping water from Cusheon Lake into St. Mary Lake. This would of course be a very expensive and potentially environmentally harmful project, conceivably transferring introduced species from one lake watershed to another.

An alternative way to balance water supply and demand could be through more conservation. While conserving and wisely using our water resources is an important measure, at some point conservation becomes an uncomfortable sacrifice perhaps best saved for drought years.

Any method of artificially increasing the water supply, even by encouraging conservation, will cost a lot of money, risk environmental harm or both. We offer this article to raise public awareness of these trade-offs. We at WPS feel that the best way to protect our health, economy and quality of life is to live within the budget of what our lakes can provide to us with a minimum of expense and environmental harm to the natural environment, of which lakes are just one part.

In the long run, nature provides the most cost effective water protection services. Protecting our lakes is far less expensive than costly water treatment facilities, or trying to remedy the health consequences of less than ideal water quality.

The terrible blooms in St. Mary Lake are another example of how inadequate protection in previous years has now denied us water that can be delivered with a minimum of treatment. Unwise residential development around the lakeshore has resulted in septic systems that leach phosphorus into the water, contributing to the blooms on the lake.

The blooms have meant higher costs to treat the water for everyone in the North Salt Spring Waterworks District, and possible health effects for both swimmers and wildlife. Dealing with these toxic algal problems also poses financial burdens and health risks on residents whose water comes directly from the lake, because they do not receive treated water from the Waterworks.

At some point, there will be a limit to how many residents can be served by North Salt Spring Waterworks without incurring huge additional costs, significant environmental damage, or both. That is why we are urging both the Waterworks and the Islands Trust to reconsider the current approach, whereby each of them points to the other to manage this problem of water supply. Instead the Trust and the Waterworks need to work together to determine the actual, true capacity of our current water supply system, then establish zoning that is fully consistent with that amount -- and stick with it for the long haul. Only then shall we see some real progress towards saving our lakes, and providing an assured and adequate supply of high-quality, reasonably priced water for island needs.

## Threat to Bullock Lake

Bullock Lake is a small but precious gem of great importance to its neighbours including two lakeside farms that use its water for irrigation. Your society is working closely with Friends of Bullock Lake who are concerned that granting the new owners' request for a zone change and OCP amendment would both harm the lake's water quality and threaten the ground water supply of the neighbours.

Cont'd to p.3





## Threat to Bullock Lake cont'd.

It is not really clear whether the existing 50 units in 25 buildings were constructed legally or not. However, current zoning allows 7 homes on 5 separate parcels. (Some can be subdivided.) The developer is asking for permission to construct a clubhouse and to sell 50 units as vacation rentals, rather than as homes.

**Water Quantity** The development's water would come from wells. Their own pump tests show that the groundwater supply for the development is connected to that of the nearby Cedar Lane Water District which already has only a marginal supply. The development is surrounded by neighbours who are dependent on private wells that could also be affected. The developers' analysis proposes an adequate supply based on the cottages being occupied only part time and relying on stored water during the summer.

The Friends of Bullock Lake group feel that this is not realistic as there is no way to ensure that tenants will conserve water, or that the units will be occupied part time (especially in summertime), or that the new owners will stop pumping and switch to stored water when neighbouring wells are threatened. The potential effect on neighbours could be grave, since there would be no compensation for them if their wells go dry, and they have no alternative source of water.

**Water Quality** The water quality of Bullock Lake is also at risk. WPS has prepared an analysis which concludes that the lake is already suffering from eutrophication (it is nutrient-enriched), and is receiving significant amounts of phosphorus from the watershed.

Therefore, any additional phosphorus from the development's septic system will result in cyanobacterial blooms as have occurred in other island lakes. The analysis took the developer's own estimates of how much waste will go to the septic field and how much phosphorus will leave it.

The conclusion is that 50 units occupied part time will contribute an additional 9 kg of phosphorus a year. If even 50% of the units are actually occupied full time and the other 50% part time, 29 kg of phosphorus will be released into the ground each year.

This phosphorus will first go into the ground and, if the flow through the soil follows the normal pattern, then it will slowly be carried by groundwater to the lake. By the time the phosphorus reaches the lake, the soil will most likely be saturated with phosphorus, which will flow to the lake for years to come. By that time, the units will be sold and occupied, the developer will be gone, and the neighbours and community will then be left with a situation that is beyond our means to remedy.

It is because of situations just like this that long ago the Islands



Trust established a firm directive that no increase in density is permitted in areas that already have a problem with water quality or quantity. Since Bullock Lake has both, it should be clear that Islands Trust Policy does not in any way permit an increase in density in this neighbourhood.

The work of Friends of Bullock Lake has been supported by professionals in several fields. We are proud that WPS could contribute the vitally important phosphorus analysis. So far, despite the request of lake neighbours, the developer has not met with them to have an in-depth exchange of views, discussion of the facts and considerations of alternative options for the development. We continue to encourage the Local Trust Committee and the developer to co-operate with the lake neighbours to find a solution that will minimize the risk to the lake and the water supply of neighbouring island residents.



**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](mailto:ssiwps@gmail.com)

**Online** [ssiwaterpreservationsociety.ca](http://ssiwaterpreservationsociety.ca)

**MEMBERSHIP**

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

Due to increased expenses, the board voted to raise the fees. We hope you will understand and continue to support us.

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: SSIWPS, Box 555, Ganges PO, SSI, BC, V8K 2W3.

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

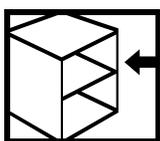
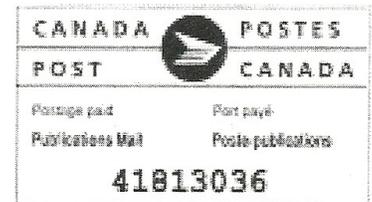


**SSI Water Preservation Society**

Box 555, Ganges PO

Salt Spring Island, BC

V8K 2W3



**Please Place Country Grocer Receipts in Box 73, between the check-out and the central exit from the store.**

This is a great help in funding the important work of WPS. Thank you very much.