



Sylvan Lake Watershed

Stewardship Newsletter

Caring for Sylvan Lake
January / February 2007

Sylvan Lake Watershed Stewardship Society Board of Directors

President

Kent Williamson
kent@sportswaptltd.com

Vice President

Kim Schmitt
schmitt@telusplanet.net

Secretary

vacant

Treasurer

Wayne Carey

Past President

Kent Lyle
lylelanding@aol.com

Directors

Lenore Berkeley

Barry Hilman

Steven Johnson

David Larsen

Jim MacSween

Bob Wilson

Alberta Water Quality
Awareness Day, June 2006
- the SLWSS volunteers
were recognized for having
the highest number of
participants during the
water sampling activity.

Maintaining Sylvan Lake's Natural Capital and Quality of Life

SLWSS has just completed a synthesis of significant scientific and management documents affecting Sylvan Lake's future. The work, completed by Planned Environment Associates is an objective review of the current situation relative to the stewardship of the Sylvan Lake watershed.

The review brings to life eight documents that collectively represent a wealth of knowledge that can and in some cases, do guide Sylvan Lake's future.

The information has been categorized into six themes. They are:

1. Watershed/lake pollution
2. Protection of natural values
3. Watershed management, planning and governance
4. Measuring and monitoring
5. Innovative solutions
6. A watershed map

All of these themes relate to the opportunity to choose a future rather than accept an outcome resulting from implementation of unplanned and fragmented business interests.

Dr. Roger Gibbons of Canada West Foundation concluded during the recent Alberta Land Use Forum in Red Deer, "Today's land use decisions will affect tomorrow's quality of life."

Nowhere is the issue of sustaining the quality of environment so directly linked to quality of life than at Sylvan Lake. Quality of life is the core context for the over one million annual users and residents of Sylvan Lake. How the land is appropriated and used within the watershed will have a dramatic effect on the future.

The overarching stewardship question, for the Sylvan Lake Watershed is how can the values that collectively contribute to "quality of life" be sustained and balanced within a very real context of a privately owned land base and the related business interest drivers.

There is an alternative, short of a dramatic change and consolidation of the current governance architecture. The solution is collective, cooperative planning and implementation, which is accountable.

Sylvan Lake Watershed Stewardship Society

P.O. Box 9012 Sylvan Lake, Alberta T4S 1S6

www.slwss.org

(con't from *Maintaining Sylvan Lake ...*)

Red Deer County has taken leadership on this issue and has adopted policy to cooperate with Sylvan Lake and other affected municipalities to complete and approve a Sylvan Lake Inter-municipal Development Plan. The remaining seven governing bodies have not yet publicly recorded their intent relative to developing a modern inter-municipal plan that would guide the protection of Sylvan Lake's values.

The current "fragmented planning approach" creates the highest level of risk to watershed values. This choice seems to favor the interests of short-term private business over thoughtful identification and protection of our "Natural Capital" and associated resource values. An organized and harmonious plan for the future of Sylvan Lake would serve both public interest and that portion of the business community that has a sincere commitment to the long-term stewardship of the lake.

Our citizen members are telling us that, without question, Sylvan Lake and its watershed deserve the highest level of commitment to a planned sustainable future. To be meaningful, a Sylvan Lake Inter-municipal watershed plan must precede any and all new independent development and area structure plans.

As Albertans, Canadians and enlightened citizens we are excited about our new governments and the potential leadership they offer.

SLWSS believes that stewardship of Sylvan Lake's future is worthy of a prominent place within Alberta's new Land and Water Use frameworks. We are committed to open and constructive communications toward making this a reality.

The Canada West Foundation is a western Canadian political think tank that is focusing considerable effort on the topic of Natural Capital. The definition of Natural Capital includes "the land and water resources that anchor our quality of life and support economic activity such as agriculture, forestry, tourism, and recreation."

SUBDIVISION DEVELOPMENT

Although all five multi-lot watershed developments in the county of Lacombe were approved last year (Boehm, DeGroat, Delta, Layton, Westend) construction has yet to begin. Society members responded to notices in the September local paper from Alberta Environment regarding an application under the Water Act by Westend landing Corporation for storm water management. Letters of concern were submitted, as there appeared to be environmental risks associated with the storm water plans. The Summer Village of Birchcliff also sent an official statement of concern to Alberta Environment regarding Westend Landing and Delta Land Company storm water management plans.

The Westend Landing development of 83 residences on environmentally sensitive land includes housing and associated infrastructure in or near the graminoid fen. The AXYS study (*Sylvan Lake Water Quality Assessment and Watershed Management Considerations*) letter to Lacombe County highlighted this issue and recommended several lots be eliminated.

There is concern that contaminants and nutrients will go directly to the lake. A suggestion to the provincial government from Society members was for the Alberta Government to use the authority of the Water Act and the Environmental Protection Act to do a comprehensive impact assessment to allay concerns over the substantial risk posed to the lake.

Sylvan Lake Watershed Stewardship Society

P.O. Box 9012 Sylvan Lake, Alberta T4S 1S6

www.slwss.org

LACOMBE COUNTY GROWTH STRATEGY

Lacombe County held open houses and information sessions in October on *Alternative Growth Management Strategies* as part of their Municipal Development Plan (MDP) and Land Use Bylaw review. If you haven't been involved, it will be important to become so as growth option #3 includes *high-density* developments in the watersheds of Sylvan Lake, Gull Lake and Buffalo Lake.

How much growth can be accommodated before the lake becomes eutrophic? A cumulative effects study (subsequently watered down to a water quality assessment) would be paramount as was suggested back then. Furthermore, an integrated Watershed Management Plan needs to be established before piecemeal development pushes the lake to its tipping point.

Public Hearings must eventually be held to change any Land Use Bylaw (LUB) so get informed and provide your comments. It is arguably more effective to provide input before the LUB is changed rather than complain after the fact. Check local papers, and the SLWSS and Lacombe County websites (www.slwss.org and www.lacombecounty.com) for details regarding hearings that may be held in the not too distant future.

CASTLE COVE MARINA PROPOSAL

Plans for a 224 slip Marina on the northeast shore of Sylvan Lake were presented to Lacombe County Council December 5th. The development would be in the County and although the water is not part of their jurisdiction, the land portion is. A change of land use would likely require rezoning and therefore public hearings. The marina would be the first phase of a 100 to 150-condominium

complex by Castle Cove Inc. The Stewardship Society sent a letter to Lacombe County Council in November 2005, urging them to undertake a lake recreational capacity study along with other stakeholders. The lake's ability to absorb an ever-increasing number of boats is finite. This was also noted in the *Sylvan Lake Public Access Study*. The Society will continue to advocate a capacity study.

SYLVAN CREEK OUTLET

Twin Fawn Holdings Ltd. is proceeding with development plans and held an open house September 2, 2006 to introduce their 19 residential lot subdivision on 3.9 hectares in Jarvis Bay. This high-density subdivision plans to have lots that border the shores of Sylvan Lake and straddle the only outflow creek on the lake. Amendments will be required to Jarvis Bay Summer Village Land Use Bylaws (LUB) as well as to their Municipal Development Plan (MDP).

The general public will have an opportunity to provide input as the approval process moves along. No definite time lines have yet been established. However, the Stewardship Society has been noted as a party of interest and will receive the proposed plans and have an opportunity for early comment.

The Society expects the recommendations of the AXYS study would apply, specifically the 30metre setback (as a minimum) from water courses. That recommendation is critical to protecting the lake's water quality and its natural environment values. Stay tuned!

MEMBERSHIP fees for 2007 are soon due. Please keep supporting the important work of the Sylvan Lake Watershed Stewardship Society by renewing your fees or becoming a member. See the attached membership form.

Community Watershed Monitoring Project

Kent Williamson, Project Manager

Last April we began a two year water monitoring program, and I am please to report to the membership that it was very successful. This project has been funded with grants provided by Alberta Environment through the Alberta Stewardship Network, Lacombe County, the Town of Sylvan Lake, and the five summer villages of Norglenwold, Jarvis Bay, Birchcliff, Sunbreaker Cove, and Half Moon Bay. The Society thanks these municipalities and provincial agencies for providing the necessary resources to do this important work.

The project required obtaining water samples, in addition to measuring flow rates and key water characteristics. The parameters that we measured in the field were pH, conductivity, temperature, and dissolved oxygen. The samples that we collected were analyzed in a laboratory for total dissolved solids, concentrations of ammonia, nitrogen, phosphorus and the presence of bacteria. In all, samples were collected from six inflow sites around the lake. The summer of 2006 could be characterized as a low flow year; from 1 to 4 samples were taken at each location before the end of June. By the beginning of July, all streams had dried up or presented insufficient flow for useful measurement.

The results of the analysis showed low oxygen levels at all sites that increased as the season progressed. Northwest Creek appeared to be well aerated. Naturally, the measured temperature increased as the weather warmed up. The pH of the inflows remained relatively constant throughout the season, and the highest values were measured at Northwest Creek. Conductivity and total dissolved solids increased during the sampling season – a factor more reflective of stream flow. Nutrient concentrations were typically higher during the beginning of the season due to the flushing of contaminants from the surrounding land into the streams with the spring runoff. The highest concentrations of nitrogen and phosphorus were measured at Jarvis Bay Creek; something that should not come as a surprise - possibly due to the higher density of residential development and the use of lawn fertilizers within the Jarvis Bay sub-division.

In terms of nutrient loading, the streams with the highest flows are those that ultimately contribute the most nitrogen and phosphorus to the lake. In early April, Golf Course Creek contributed as much as 20 kg/day of nitrogen and 1.3 kg/day of phosphorus to the lake. This rate decreased substantially immediately after the spring thaw and was the lowest of the measured streams for the balance of the sampling season. It should be noted that when sampling at Golf Course Creek, most of the flow coming to the lake was ditch runoff along Hwy 11A rather than the creek that emerges from the Sylvan Lake Golf and Country Club property. It is the opinion of this correspondent that the source of nutrient contamination reaching the lake from Golf Course Creek comes primarily from residential development upslope from and towards Norglenwold rather than the golf course.

This project was made possible only by the efforts of our volunteer members: Lenore Berkeley, Lorna White and Mike Williamson were instrumental in the success of this community-based program. Kudos and thanks to all!

For more information on the water-monitoring project and to see detailed results please visit our web site at www.slwss.org.

Pollution - An important issue affecting Sylvan Lake's Natural Capital

Sylvan Lake is blessed with good quality water. Scientists call Sylvan Lake's water condition Meso-eutrophic. The “**meso-eutrophic condition**” itself, is part of Alberta's, Canada's and the local communities' **natural capital**.¹ Nine hundred thousand day visits to Sylvan Lake annually is only part of the evidence. The over 15,000 residents living in close proximity to the lake will also strongly attest to the value.

Scientific evidence suggests that the collective “we” are polluting the lake. Think about the consequences of Sylvan Lake changing to a “**eutrophic**” lake, nearly overnight, from the release of its accumulated nutrient and toxin loading.

Knowledge of this alternative condition is perhaps useful for comparison. Eutrophic lakes and shallow wetlands have very high productivity. Productivity creates cyclic conditions of plant and algae growth, high oxygen demand, and decomposition. These conditions are conducive to algal blooms, odor from decomposition, swimmers itch, fish kills and more.

Stewardship and sustainability of community values such as “a healthy Sylvan lake” can be achieved. The solution would be embedded in

Sustaining the “Genuine Wealth” of the Sylvan Lake Communities

Mark Anielski is an Ecological Economist who is doing valuable work assisting communities, provinces and countries sustain their genuine wealth. One of Professor Anielski's recent contributions has been the development of “Wealth and Genuine Wealth” accounting for communities.

Anielski notes that most of us associate wealth with financial capital. The facts of the matter

a Vision for Sylvan Lake that includes a goal of “Zero Pollution,” anchored by an **essential strategy of “no new pollution and a rigorous reduction of existing pollution sources.”**

Something the community needs to talk more about is... how important is the clean water condition that we currently experience? Are the current policies affecting lake pollution achieving the strategy? How would we know if this was the case? What more needs to be done?

¹ **Natural capital** includes the land and water resources that anchor our quality of life and support economic activity such as agriculture, forestry, tourism and recreation. Furthermore, natural capital includes living ecosystems – grassland, oceans and forests – that cleanse fouled air and water, reinvigorate soil, and contribute to a predictable, stable climate. Like produced capital, natural capital is subject to deterioration, in this case through excessive growth and waste, natural resource extraction, and modification of landscapes.

Source: Worbets, B., & Berdahl, L. (2003). *Western Canada's natural capital: Toward a new public policy framework*. Calgary: Canada West Foundation.

are that word **wealth** is derived from old English words “weal” (well being) and “th” (condition) taken together to mean “**the condition of well being.**”

Anielski reminds us that the father of accounting Lucca Pacioli, a 16th century mathematician and monk did not provide a definition for the words wealth or profit. Anielski goes on to provide a definition for Genuine Wealth, as noted by Robert Kennedy, as “the

things that make life worthwhile”. Anielski and other ecological economists focus on the measurement and accounting of those things that the communities and citizens value. One of the key messages that Anielski delivers to governments and citizens is that **“what we measure is a reflection of what we care about.”**

Genuine Wealth is what drives over 900,000 day visitations each year to Sylvan Lake as well as the close proximity residents. Some of the genuine wealth values that we are hearing time and time again include: Clean, unpolluted water and beaches, maintaining beautiful natural shoreline and views, predictable water levels, open space and rural character, diverse and abundant wildlife and habitat, pleasing architectural standards that compliment nature, public access and use areas, safe lake use, healthy fish populations and more.

Fortunately, the Genuine Wealth model is being applied at the community level, allowing communities to govern toward protecting and enhancing the true values and wealth. In Alberta the City and County of Leduc have just completed a Genuine Wealth Assessment for their communities. Interestingly when clarity around the values and the “things that make

life worthwhile” was achieved the interdependence of the city and the countryside also became much clearer.

Given our knowledge of what genuine wealth is, it is entirely possible to sustain and expand upon this wealth. Clear identification of the components of **Sylvan lakes Genuine Wealth** is an essential stewardship role. Without the identification of these “values” our many governments around the lake have no clear understanding of what the community wants to sustain and protect. This creates a very high-risk stewardship situation. Under these conditions our municipal, provincial and federal government stewards can do little to support proactive stewardship and are forced to continue to react to hundreds of site-specific proposals. Private business will without doubt continue its very important role of organizing resources to meet markets demands. Without knowledge and a policy framework focused on sustaining our Genuine Wealth short term and sited business interests will carve the future. The real challenge before the greater Sylvan Lake community is to overcome its complacency and muster a true sense of proactive stewardship around its genuine wealth. The model on how to do this exists right here in Alberta.

Sylvan Lake Watershed Stewardship Society
P.O. Box 9012 Sylvan Lake, Alberta T4S 1S6

ANNUAL MEMBERSHIP APPLICATION (APRIL 1 TO MARCH 31)
(Please print clearly)

Name _____

Mailing Address _____ Home (____) _____

_____ Work (____) _____

Municipality _____ Lake (____) _____

Postal Code _____ e-mail _____

** Your e-mail address will greatly help the Society communicate with you on important issues.

Sylvan Lake Address _____

Postal Code _____ County / Town / Village _____

Annual Membership Dues:

Individual (\$20.00) _____

Business / Camp / Municipality (\$40.00) _____

Student (\$10.00) _____

Donation _____

Please make cheques payable to: **Sylvan Lake Watershed Stewardship Society**)

I will assist the Society: any way I can __, with membership dues only __, with a donation __

Mailing Address:

Sylvan Lake Watershed Stewardship Society
P.O. Box 9012 Sylvan Lake, Alberta T4S 1S6

THANK YOU!

(Copy this form should you require extras.)