



*To Enhance, Preserve & Protect  
Pigeon Lake & Its Watershed*

UPDATE June 2008

## REGIONAL WASTEWATER SYSTEM

**The Pigeon Lake Regional Wastewater System is at a critical stage and a decision needs to be made to apply for funding.** The environmental health of the lake is more important than ever before and the project should move ahead as quickly as possible. Provincial funding is limited and further delays may add years to the approval and implementation of the system. **PLWA members are urged to express their concerns to their elected representatives.**

### *Background*

A Pigeon Lake Regional Wastewater Planning Committee was established in the fall of 2007. The Committee consists of representatives of the Counties of Leduc and Wetaskiwin and the six of the ten Summer Villages (Crystal Springs, Grandview, Ma-Me-O, Norris Beach, Poplar Bay and Sundance Beach) around the lake. The Committee is working with Alberta Environment and Alberta Infrastructure and Transportation.

The remaining Summer Villages (Argentia, Itaska, Golden Days and Silver Beach) currently have a wastewater system operated by the North East Pigeon Lake Regional Services Commission (NEPL) which manages the wastewater collection on the north east side of the lake and a treatment system near Mulhurst. The initial wastewater collection system for the Hamlet of Mulhurst was constructed in 1984 by the County of Wetaskiwin and it was expanded in 1987. Other watershed residents have holding tanks, lagoons, outhouses and septic fields. Many watershed residents in the County of Wetaskiwin have their holding tank wastewater trucked to the Mulhurst Lagoon while some watershed residents in the county of Leduc have their holding tank wastewater trucked to a treatment facility near the Town of Thorsby. The provincial park on the south side of the lake utilizes a lagoon.

In 2006 the County of Wetaskiwin and NEPL received funding approval for a Mulhurst lagoon expansion project. In late 2007 the expansion was completed including an upgraded level of wastewater treatment.

Leaking septic fields, holding tanks, outhouses and lagoons, together with “grey water” may be a source of nutrients which are contributing to the growth of blue-green algae in Pigeon Lake. Total phosphorus levels in the lake have increased 49% since 1983 while total nitrogen levels have increased by 32% which combined with warm summers have produced ideal conditions for algae growth.

In the fall of 2007 the Pigeon Lake Watershed Association (PLWA) commissioned Aquality Environmental Consulting Ltd. (Aquality) to collect water samples from Pigeon Lake and prepare a Water Quality Report. The PLWA also retained Aquality to prepare a State of the Watershed Report. The State of the Watershed Report will provide a baseline of information for decision making about Pigeon Lake. It will summarize all known environmental information about the watershed, identify knowledge gaps and make recommendations for focus and future decision making. Aquality is in the process of incorporating feedback from provincial government departments and finalizing the State of the Watershed Report for Pigeon Lake; however, Aquality has determined that a major source of nutrient loading is inadequate sewage and manure management.

The PLWA has maintained an active dialogue with Alberta Environment, the counties and summer villages, NEPL and elected officials at all levels. It is apparent that the greater the agreement on a solution the more likely we are to receive provincial funding for a regional wastewater system for Pigeon Lake.

The Regional Wastewater Planning Committee retained Associated Engineering to Prepare a Regional Wastewater Strategy and Master Plan. That study included public consultation plus a review of engineering and funding alternatives. Five options were identified and presented to the Pigeon Lake Regional Planning Committee. In October 2007 the Pigeon Lake Strategy and Master Plan was adopted by the Committee. All members accepted the recommendations in the report.

In January 2008 the Pigeon Lake Wastewater Steering Committee issued the Regional Wastewater Project Information Bulletin. The Steering Committee reported that it had selected "Option 1", from the Associated Engineering report, which will involve:

- upgrade of the Mulhurst treatment facility to a aerated lagoon for a higher level of treatment;
- development of a regional transmission system to service the north and south sides of the lake;
- development of local pressure sewer collection systems in existing developed areas and connection to the regional transmission system; and
- allowance for connections from future private development and local collection systems and which would connect to the regional transmission system.

The existing NEPL collection system would remain unaffected by the regional pipeline system. A new separate authority or commission would be established to operate the system expansion and a service agreement would be determined with NEPL for waste disposal at the Mulhurst facility to reach an equitable service agreement for all Pigeon Lake residents. The new governance structure will enable the new participants to agree on service fees for the treatment of wastewater from the expanded regional wastewater collection system.

Funding may be available from the Province of Alberta, under the Alberta Municipal Water and Wastewater Partnership Water for Life program, to off-set 75% to 90% of the regional components of the system of approximately \$27,000,000. Additional funding may be available for the local, public, collection systems. Property owners would be required to pay the cost of hooking up to the local collection system.

### *Recent Developments*

The County of Wetaskiwin has offered to serve as the lead municipality for funding and other purposes for the regional wastewater system expansion.

Three of the Summer Villages commissioned a report from Tagish Engineering to review environmental and governance issues related to the operation of the existing wastewater collection and treatment system operated by NEPL.

The endorsement of the option selected by the Steering Committee (Option 1) by two of the Summer Villages was conditional on a number of environmental and governance concerns being resolved.

NEPL retained EXH Engineering Services Ltd. Engineering to conduct a review of the operation of the existing wastewater and treatment system to address the environmental concerns raised. That study is in the process of being finalized and released to the public. It has been reported the EXH study found the NEPL system to be in excellent condition.

At the invitation of the summer villages who commissioned the report the PLWA reviewed the Tagish Engineering report carefully and found that it used dated information. The Tagish report did not identify any significant new environmental issues. The governance issue can be addressed through the Steering Committee. The EXH review of the existing system has addressed all operational issues. All parties can and should continue to work together, as a watershed community, to address any downstream impacts of the wastewater treatment process. Discussions have been ongoing to ensure that the summer villages receive the information required to address their concerns.

The PLWA has been advised by the province that the Thorsby facility has the capacity to process wastewater for one or two summer villages.

To date there has not yet been a decision to move ahead with a funding application. The PLWA has been advised by representatives of the province that there are many more applications for funding than there are funds available. It may be too late to apply for funding for 2008 and it may be one or two years before funding is approved. Further delays in moving ahead in an application for funding could result in a regional wastewater system being delayed even longer.

All participants in the process are to be complimented for their hard work, the identification of issues and the commitment to protecting Pigeon Lake and its watershed.

It's the Association's view that it is imperative that the Regional Wastewater System Steering Committee should move ahead with the support of both counties and those summer villages who wish to implement option 1 to utilize an enhanced and expanded Mulhurst facility and work with the County of Wetaskiwin to apply for funding immediately. If individual summer villages wish to make arrangements with Thorsby for a pump out and truck haul service, as part of a regional solution, they should be able to do so.

**There should be no further delay in applying for the funding to expand the Mulhurst facility and extend the collection system around the lake. The feedback we have received from our members is that they do not want to see any further delays. The counties and summer villages should work together to move the regional wastewater system ahead as quickly as possible.**

If you support this recommendation please voice your concern to your summer village mayor and council or your county reeve and councillor, your provincial MLA and your federal MP.

If you have a question about the Regional Wastewater System you are encouraged to contact your elected representative or contact a member of the PLWA Board of Directors.

The following documents, related to this issue, are available on the PLWA website at <http://www.pigeonlakewatershedassociation.com/Home> :

- Pigeon Lake Water Quality Report, September 2007
- Mulhurst Bay Lagoon Expansion Project, October 2007
- Pigeon Lake Wastewater Strategy and Master Plan, October 2007
- Regional Wastewater Project Information Bulletin, January 2008
- Links to Summer Village and County Websites
- PLWA Board members and contact information