

Pigeon Lake Watershed Association



Annual Report 2009 / 2010

See Us - Website: www.pigeonlakewatershedassociation.com

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Pigeon Lake Watershed Association (PLWA)

Annual Report 2009 – 2010

PLWA Overview

The Pigeon Lake Watershed Association (PLWA) was organized, through the merger of two stewardship groups in June 2007. We are a volunteer association governed by a board of community members and from the watershed including agricultural, cottage and permanent residents, seniors and small business owners. Our activities are accomplished through individual volunteers and committees, and managed through the implementation of an ongoing and annually updated Association "Board Game Plan"

We are a charitable, non-profit environmental advocacy group for the Pigeon Lake watershed.

Our Mission

To enhance, preserve and protect Pigeon Lake and its Watershed as a healthy and environmentally sustainable ecosystem for current and future generations.

Our Work

Engagement of stakeholders in environmental best practices such that all residents, business, industry and municipal governments located within the Watershed (or indirectly affecting the watershed) are committed and conforming to best practices, activities in planning, developing, maintaining and utilizing Pigeon Lake and its environment.

PLWA identifies promotes and advocates for environmentally sustainable land use practices that are conducive to the accepted levels of biophysical impacts to the total ecosystem within the watershed, the lake and its tributaries. This includes providing guidance and advice on project work proposed by industry, commercial and residential developments within the Pigeon Lake watershed.

Restoration and preservation of the natural ecosystems and water quality such that the water quality and water levels of the lake and its tributaries remain are at optimum levels to support:

- a healthy and well balanced fishery;
- safe and enjoyable water based recreation activities; and,
- a healthy and well balanced bird and wildlife population.



President's Message

Four years ago Pigeon Lake blue-green algal blooms were so significant that birds could walk on mats of rotting vegetation floating in the lake and people rallied together to form a Stewardship Association to begin work required to protect the watershed; significant progress has been made to determine causes and initiatives are underway to help prevent further losses around the lake, however factors impacting our lake's sustainability continue to be a real concern. Recent fish die offs and increasing algae growth in August show that a collaborative effort of everyone around the lake is required to make a difference.

This report is to let you, the members, know what the PLWA has done over the last year and what we, on your behalf, are striving to do. Please remember that as members, you are the owners of the PLWA and collectively you determine the direction of the PLWA initiatives. Your participation and interest continue to help determine the success of the Association's programs and events this year.

The PLWA Directors sincerely appreciate the commitment of members, individuals and groups interested in the watershed who have so generously given time, valuable knowledge, and support to fulfill the PLWA mission and objectives detailed on the following pages.

As the instrument of the membership, the PLWA requires your continuing input to develop our ability to be an effective community voice to protect your interest in the watershed. The PLWA has received charitable status and has used financial contributions to invest in determining what impacts the health of this watershed and the studies you have sponsored are the starting point to finding sustainable solutions. The Association is actively sharing these learning's and resources, spreading knowledge and increasing awareness with the public and the elected officials and agencies that determine policies and make decisions affecting the lake. We are bringing Stewardship initiatives to an ever broadening circle, and have received positive feedback that more people are reconsidering old habits to live more sustainably in and around the watershed.

The PLWA Directors have donated substantial time to work diligently towards several important goals. Annually, on behalf of us all, the PLWA Directors, review our progress and focus our Association's priorities. Our 2010 Priority Work:

- Stewardship education and events such as the Lakeshore Clean-up, Homesite consultations, Love the Lake Program and the Himalayan Balsam Eradication Campaign.
- Sponsoring the development of Integrated Watershed lake Management Plan (IWMP) to create a multilayered umbrella of organizations working together.
- Continuing to support the Regional wastewater servicing strategy for Pigeon Lake.
- Continuing to collaborate in relationships with Provincial authorities Summer Villages (SV) and Counties and share information.
- Continue to monitor and report water related issues within our watershed and advocate for appropriate policies.



- Develop a sustainable funding model for our expenditures; and,
- Grow our membership and volunteer base to ensure program delivery and the expansion of lake stewardship.

On the following pages, you will find more details about initiatives underway regarding Stewardship programs, Development, Water Level & Quality, and PLWA's Sustainability. As you read about issues to consider and related goals, please reflect on your priorities and concerns and then tell us what you think. Speak out at our AGM, post your questions and comments, and fill in the feedback/evaluation sheet and blog on the PLWA website. Your support for these initiatives will determine what it is possible to accomplish over this next year.

People in the watershed need to participate in the PLWA organization to strengthen its voice and ensure it remains an effective advocate for your interest in the health of the lake. It is also important for you to communicate with your elected representatives at Summer Villages, Counties, First Nations Bands and provincially to ensure everyone understands your concerns and what action you require to determine priorities and initiate actions necessary to protect watershed health. They must hear your voice to be able to serve you.

There is no time left for apathy as we have witnessed the effects of the acceleration in the deterioration of the riparian area around the lake and poor water quality, impacts on the environment, poor lake health, and more recently, lower property values.

Pigeon Lake is everyone's inheritance and it is up to all of us to work together, without boundaries, to ensure our children and grand children will in turn, have a lake they can enjoy. Lakes in Alberta are a precious resource that must be protected against deterioration caused by abuse or lack of appropriate planning and cooperation.

Your interest and action is really what will make the difference.

On behalf of the Directors,

Trudy Flesher,
Board President 2009-2010

Watershed Challenges: PLWA Responses

Shoreline Health & Stewardship

With 65 % of our shoreline deemed highly impaired (Alberta Sustainable Development - Fish & Wildlife in June 2008), we all need to join in to preserve, protect and restore what we can. The PLWA continues to build on our previous years activities, providing and expanding the resources and opportunities for watershed residents to learn and engage in stewardship activities.

Our overall goal this year is to reach and inform more people: PLWA is providing resources, with the help of other organizations and experts, to our membership and stakeholders within the watershed. Our goal is to engage the community; person to person, neighbour to neighbour, municipality to municipality. We encourage front line discussion between people and using the resources we and others offer in different ways. Over this next year we will:

- Enhance and promote the use of learning resources and informative weblinks via our PLWA website.
- Develop an easy to use materials e.g. quick picture references for: 1. Our top weeds. 2. Our wild flowers. 3. Our trees and shrubs; and,
- Promote discussions about our lake's health with each other and getting people to become good stewards of our lake.

The PLWA will reach out to our Summer Villages and County Beach Areas, continuing to reinforce the ***Love the Lake*** message and commitment to the lake. Our ***AGM Open House*** has been expanded this year to include the ***AB Environment, Respect Our Lakes umbrella program*** to bring us even more resources.

Himalayan Balsam Campaign

This year we have launched a Himalayan Balsam Eradication Campaign. Alberta has now given it the highest status, a prohibited noxious weed. **Invasive alien plants** are described by the Alberta Invasive Plant Council, as "Species introduced deliberately or unintentionally outside of their natural habitats. In this new environment, free from their natural 'enemies', non-native plants have an advantage that allows them to out-compete native plants and agricultural crops for space, moisture and nutrients." In the case of Himalayan Balsam's on Pigeon Lake it has quickly dominated the shorelines growing in copious numbers and found in other moist areas in and around the lake, crowding out important native plants. We need to ensure a healthy diversity



of native plants in and around our lake for filtration, erosion control and wildlife habitat. We need to eradicate this weed!

Our approach is to communicate, educate and advocate for individual and SV action, to increase awareness and the willingness of people deal with the Himalayan Balsam properly. Calls for volunteers to work with us have only yielded a few responses. We need volunteers to help educate, monitor and to get to the hard to reach places. We are committed to working on this situation and to strategize on approaches with the Summer Villages.

Riparian Health and Plants. Now available - a 3-section **Riparian Plant presentation** full of pictures from around our lake. (Attain via PLWA website). Section 1 – has 2 parts. 1) Explains the value of healthy **riparian areas / shorelines**. 2) Presents our Pigeon Lake **native trees & shrubs**. Section 2 - Showcases our **native wild flowers**. Section 3 - Introduces our **weeds**, ways to deal with them and links to sites such as the AB Invasive Weed Council for more information.

Tree planting. One member committed to the Love the Lake by planting trees. A total of 448 trees were planted last year and the total for the past three years is 2143 trees.

Living on the Edge. These wonderful, easy to use reference books, cites many of our considerations for living beside the water and in the watershed. These were secured last year, and distribution has progressed into this year. This alone is worth more than the price of a membership.

Water Quantity

PL Hydrological Assessment

Pigeon Lake's water levels have been decreasing over the past 10 years. Low lake levels can result in an increase in water temperature and they become more susceptible to thermal water column inversions. Prolonged periods of high temperatures promote algae blooms which in turn use up more oxygen and impact the fish habitat. This can result in large patches of algae blooms and/or fish die offs.

The PLWA is committed to learning about the lake's hydrology so what PLWA advocates for, is based on informed and careful consideration not only to the watershed but to the entire matter of water resource management in the watershed.

The Board of Directors of the PLWA commissioned a hydrological assessment to better understand the importance of the relative factors affecting lake level and lake water quality and to make recommendations for lake sustainability. Together with a



number of Summer Villagers and personal donations, a hydrologic assessment (water balance study) of Pigeon Lake was completed.

The scope of the study includes:

- A review of the various inflows and outflows of water for the lake based on existing historical data.
- Information regarding specific source inputs of water, and;
- An opinion on alternate sources and methods of water inputs to increase the level of the lake.

The PLWA Directors have received the report as information and has accepted it as fulfilling the requested scope of work. It is worth reading (find it on our website) as it provides valuable insight into the conditions of Pigeon Lake.

Moving forward on the water level work, the PLWA will work with the Government of Alberta and other experts in the full evaluation and exploration of the suggestions, recommendations and conclusions referenced in the study. A recently formed alliance consisting of Summer Villages is looking into taking additional steps and evaluate the feasibility of alternate water sources for Pigeon Lake.

Water Quality

Lake Algae

The PLWA is working to mitigate the **Blue-Green Algae Blooms (Cyanobacteria)**. The conditions to produce significant algae blooms did not happen in 2009 though we did have a major die off of the large white fish population. Enough of the necessary factors are present that algae blooms may appear again and fish die-offs occur again.

PLWA is staying current on the water quality working with and consulting experts.

1. The province has contracted the Alberta Lake Management Society to conduct the continued water sampling of the lake. One of our volunteers has donated his boat and is working with a university student test for several conditions, record and track the water quality of the lake.
2. By the generous donation of the use of his plane, one of our members has the PLWA to have a shoreline video created as well as monitoring our levels of cyanobacteria through fly over observations.

Over the course of last year the PLWA technical committee investigated a number of in-lake techniques and ideas as to their algae bloom mitigation potential either to stop it from happening or to deal with it when it shows up.

The work accomplished was considerable; however, most of the techniques have been ranked as not feasible due to cost or due to the capacity of the technique given the size of our lake. The PLWA plans to continue conducting feasibility work on the use of skimmers to “harvest” the algae or boom it to keep it off the shoreline.

The **reduction of the nutrient run-off** requires action from those living along the shoreline so PLWA has plans to engage the agriculture community, the Summer Villages and the shoreline residents.

The **agriculture community** is to be commended for its high participation rate in the voluntary, free and confidential **Environmental Farm Plan workshops** provided by the Alberta Environmental Farm Plan Co. Our farmers are obviously concerned for the watershed and through this program develop their own environmental best practices plan for being good watershed stewards including, minimizing their nutrient contributions into the lake. Working with this sector of the watershed, PLWA hopes to learn more about the agriculture impacts on the lake, to get a better understanding of this factor and what it means to the lake.

The PLWA will continue its work **supporting the Summer Villages** to educate, encourage and provide support in enforcing regulations who live in the riparian areas (roughly 30 m in from the lake, depending on the ground) putting together clear best practices and by-laws. Recommendations have included banning the use of fertilizers, pesticides and herbicides, and adding native trees and bushes which play a large part in natural filtration systems.

The Association, with the financial support of Alberta Environment retained the Environmental Law Centre which has prepared a draft report *Regulatory and Policy Actions for a Health Pigeon Lake*. The PLWA has provided the draft to the Association of Pigeon Lake Municipalities, and anticipates working with the summer villages and counties to help identify and implement best regulatory practices for the watershed. The PLWA partnered with the Federation of AB Naturalists, to reach out in two ways to our part and full-time shoreline residents:

1. **Living Healthy Shorelines 101 workshops** were held in various locations around Pigeon Lake last year. We suffered from poor turn-outs, possibly related to the wonderful weather on each of those particular days. These will not be continued.
2. A sample of 30 free, confidential **Homesite Consultations** were completed last year. These received rave reviews. The PLWA has secured 50 this year on a first come first serve basis and a waiting list has been started for 2011. A Homesite Consultant comes to your place and ensures that you learn about your best environmental options for your lot, buildings, ground, plants, and waterfront including boats. These should be snapped up by everyone.



Waste Water System

In the past, this has been a high priority for many of our members. Our collective voices combined with the dedicated efforts of a few key people, moved this project forward. The PLWA continues to give updates on the progress being made. Last year, work was done by the expansion committee completing Phase I, the preliminary layout and costing for the waste water system and work with the first Nations Bands to run it through their land, collecting their waste along the way, is going well. Funding for the next phase is the biggest hurdle. It now looks like funding decision has been held back until 2012 for the next phase. PLWA continues to update members as information becomes available and support those working on this initiative.

The PLWA also developed and distributed to the SV's a Guide to Sewage Holding Tanks in May of 2009. These were embraced by the SV's awaiting the expansion of the wastewater system. They brought in by-laws to ensure the first step, of ending the use of septic fields that are leaching ecoli into the lake.

Development & Industry in the Watershed

The Big Picture - Integrated Water Management Plan (IWMP)

The PLWA is also directing its efforts into the development of an IWMP for the watershed. Development around the lake is happening, so our goal is to ensure that it is sustainable for the lake and watershed. Leading this initiative, the PLWA launched and engaged many of the key stakeholders and established a steering committee which is producing a terms of reference, project scope, timeline and budget for a plan. The plan will provide a process through which stakeholders can identify issues impacting water quality, develop mitigation strategies and implement the measures identified.

This next year the challenge will be to raise funding to commence this important process and to engage stakeholders in the development of a draft plan.

The PLWA also is continuing to advocate for an area structure plan and an inter-municipal development plan to regulate development with the watershed.

Shoreline Projects & Company Requests for Water

Shoreline projects, development and water requests come to the door of PLWA. Our desire this year is to move into a proactive position versus being in a reactive to



projects and requests well under way. Meeting this goal will recognize us as an “Interested Party” giving the PLWA notification of proposals at an early stage thereby better enabling us to advocate and educate for sustainable options. We respect the jurisdictions of the summer villages, the counties and provincial departments involved, and endeavor to work with them.

The PLWA has developed our own Sustainable Development Principles (located on the website). We review development plans, proposals against these development principles and accordingly advocate, encourage and support sustainable development adhering to the PLWA Development Principles. An example is the Leduc County North Pigeon Lake Area Structure Plan proposal which appeared to meet many of our principles. Leduc County has given the plan first reading and is considering public input received. This plan is evolving and a revised draft is in the works. The Association has also responded to the Wetaskiwin County proposed revisions to its Municipal Development Plan and has recommended a Area Structure Plan for that portion of the watershed which falls within the county.

We have strongly opposed water withdrawal requests from both our underlying aquifer and lake. Without the funds to legally oppose these applications, we have appealed to the regulators and the companies to consider the impacts on the lake and our surrounding communities. See the PLWA letter to Imperial Oil February 2010 located on our website. Our advocating has made a difference. Alberta Environment countered MEC’s renewal application for a diversion of 91,980 m³ of groundwater by allowing 31,390 m³. See our newsletter or website for more details on a number of these situations and the PLWA responses.

Healthy Fishery

The PLWA continues to be concerned with **ensuring a healthy fish habitat**. At this time we are monitoring the Pigeon Lake Fisheries reports issued by the Sustainable Resource Development (SRD), keeping our members desires and concerns in mind. We also continue to seek and hear from a range of experts. One example is our AGM Speaker, David Park a Fisheries Biologist gave a talk titled: The Last Goldeye? The Past and Future of an Alberta Watershed.

Over a year ago the PLWA board decided to support the SRD plan and continue to monitor progress. Although there was some difference of opinion as to what native levels are and how best to do this, we are aligned with the same desired outcome: “...to return Pigeon Lake to the healthy natural fishery that existed many years ago.”

The Pigeon Lake Fisheries Management Plan evolved from a comprehensive process.



In 2001, a Pigeon Lake Fisheries Management Advisory Committee was set up with representatives from First Nations, recreational fishers, commercial fishers, the local community and government staff. They produced a report in 2003. A 5 year review of the plan was conducted in early 2009. This included two public meetings and a survey which had 255 responses.

Future initiatives with Fisheries include working together to better understand the reason why so many whitefish are dying in the late summer months.



The Association

Members + Membership

Currently the PLWA has over 500 members. This is down from last year and we'd like to know how to bring people back, and to grow our numbers. One concern is that people may look to the PLWA for quick answers when our challenges become obvious, such as when the Blue-Green Algae (Cyanobacteria Blooms) show up on the lake or when an issue needs a collective voice. Creating a healthy lake and watershed needs to be part of our lake lives, all the time. We need members to support and build our association now, to grow the strength of our voice so that we can advocate with influence when we need to. The more numbers, the stronger our voice. Please encourage everyone to join us.

The membership cost has been kept to a low annual renewal fee. \$10 per individual and \$20 for a family. The family membership enables us to list everyone as a member and each family member who wishes to receive newsflashes and newsletters via email can do so. We offer one regular mailing per membership.

Community Groups & Other Stakeholders

We welcome the support, engagement and partnerships of community groups. It is important that all sectors, groups and interested citizens from across the watershed be engaged in some form, in the stewardship of our watershed.

A number of key stakeholders are engaged in our Integrated Management Watershed Planning process.

This year we hope to build a stronger relationship and the Agricultural Community and will reach out to the First Nations peoples to explore how we might be more inclusive of them in the PLWA.

Communications

Communications has been flagged by the board as a priority. Renewed efforts have already resulted in some tangible accomplishments:

1. The recent newsletter was packed full of our activities and updates were sent out to over 3000 Pigeon Lake residences via the Pipestone Flyer. If you did not get one, it is on the website.
2. The PLWA website has been slightly upgraded. You will find a new look and feel and it has some greater technical advantages. Please visit it soon. There are many great resources and reports for our members.
3. Newsflashes. PLWA will continue to send those members who have given us their email addresses, newsflashes on events and issues of concern to us. The topic of our last newsflash was on the Himalayan Balsam. Please contact us, if you did not receive this newsflash, sent in early July to confirm your contact information.

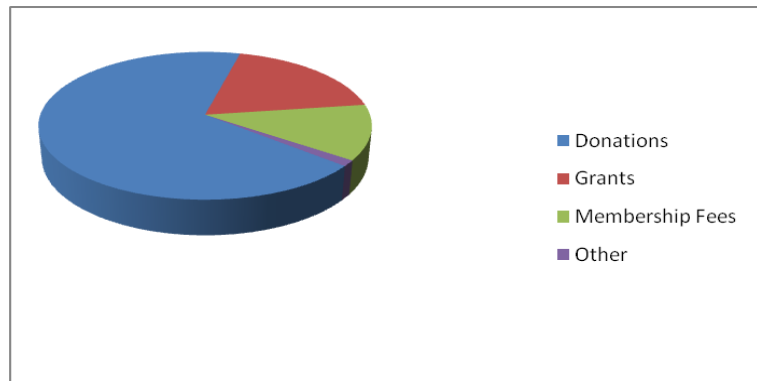
We are committed to keeping our members informed.

Financials

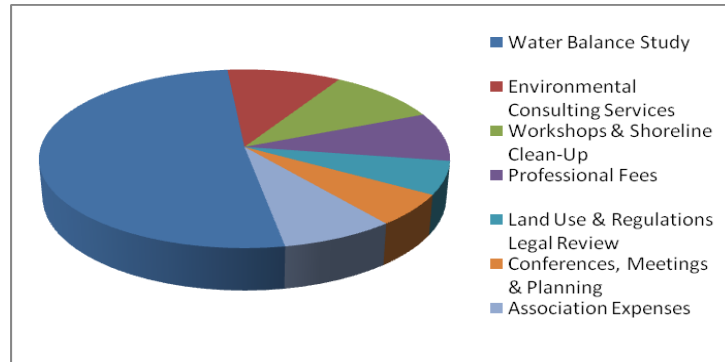
A 2009 snapshot is below. For the full picture, please see the Pigeon Lake Watershed Association Financial Statements Year Ended December 31, 2009 which details both 2008 and 2009, and also the Auditors Report. These can be found on the PLWA website.

In summary, members equity, beginning of the year = \$ 109,963. Equity at year end = \$ 60,016.

Revenue 2009 - \$ 53,105



Expenses 2009 - \$ 103,052



Increasing our revenue is critical to our sustainability.

The goal this year is to develop a sustainable funding Model to ensure the financial stability of the Association. That begins with evaluating the possibility of employing a person to enhance the capacity of the PLWA to attend to our work and to ensure our vital connections with our members, volunteers, donors, partners and other key stakeholders.

Donations

Donations of any kind and amount are also welcome and much needed. See our contact information on the front of this report. A cheque made out to the Pigeon Lake Watershed Association send to that address on the front of this report. If you have questions please call that number.

Directors

Board members are elected volunteers at the Annual General Meeting, committed to two years of service from the date of the AGM. Directors may be re-elected. As an organization in its early years, there has been the watershed work, as well as the work of forming and evolving the Association. All these leaders over the three years have contributed much effort to these ends.

Sincere appreciation to our Retired Directors 2009/2010 for their contributions to PLWA and the lake: Randy Conrad – Sundance, Don Davidson – Grandview, Doug McKenzie - Itaska, Abe Silverman - Grandview, Jim Stevens - Westeros, and Trudy Flesher – Gilwood. Most are continuing in some volunteer capacity.



2010 / 2011 Directors

Director	Elected / Term	Position / Committee	Sector / Beach
Emily Beaudry	2010-2012	Technical & Research	Argentia
Doug Bell	2010-2012	Treasurer & Finance	Crystal Springs
Tom Cliff	2010-2012	Technical & Research	Ranch
Al Olson	2010-2012	Gov Relations	Sandholm
Gene Begg	2009 – 2011	Gov Relations, IWMP	Farm Upstream
Ryan Devlin	2009 – 2011	Communications	Mulhurst Bay
Michael Gaian	2009 – 2011	Technical	Mission Beach
Mary Ellen Herman	2009 – 2011	Membership	Ma-Me-O
Bryan Kickham	2009 – 2011	VP, Gov, Tech	Golden Days
Dennis McCoy	2009 – 2011	Fundraising, Tech, Gov	Golden Days
Don Smallwood	2009 - 2010	Land Use, IWMP	Viola Beach
Hugh Saunders	2010-2012	TBD	Crystal Springs
Marilyn Kane	2010-2012	TBD	Poplar Bay
Susan Ellis	2010-2012	Communications	Itaska

PLEASE GET INVOLVED:

Each director’s contact information is listed on the “contact us” page of the PLWA website or email us at

info@pigeonlakewatershedassociation.com

Or call us at (780) 586-2228