

PLWA / PLWMP Program Impact 2020

The Pigeon Lake Watershed Association (PLWA) programming in 2020 focused on filling in knowledge gaps and building an up-to-date repository for stewardship. A new PLWA website was launched that focuses on implementing the Pigeon Lake Watershed Management Plan and features lake-friendly guides for property owners.

Program plans were adapted early in the year to adhere to public safety measures to prevent the spread of COVID-19. Following physical distancing protocols, over 100 water samples were collected. Virtual forums were used for meeting with partner groups and committees. Outreach was conducted through social marketing campaigns using social media and biweekly newsletters were emailed to members as a regular touchpoint in the summer.

With the support of the community, 2020 was not a year lost. PLWA made great strides to fill knowledge gaps and develop resources that can be used by residents and key stakeholder to preserve and protect Pigeon Lake and its watershed.

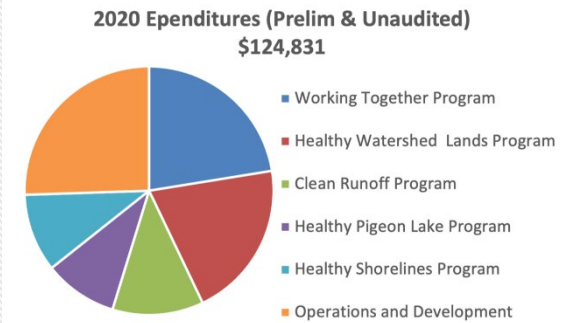
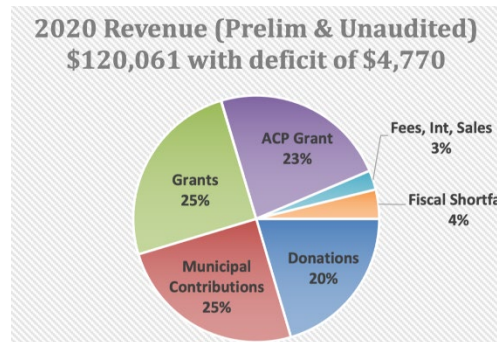


Pigeon Lake Watershed Association Strategic Action Report – 2020

Implementing the Pigeon Lake Watershed Management Plan

The PLWA mission is **to preserve, protect and enhance Pigeon Lake**. The organization plays a lead role in facilitating community action, advocacy and education, supports policy changes to promote beneficial land use management practices, and partners with the GOA, non-profits and the universities to invest in initiatives and research for the lake. Our work benefits Pigeon Lake. In turn, a healthy lake supports recreation opportunities and the economic viability of the region to benefit all communities in the watershed.

PLWA seeks resources and funding for Pigeon Lake. In the five-year period 2015-2019, municipalities contributed \$156K to PLWA-led programs. With support from the community and partner groups, this grew to a further \$480K in revenues. Ratepayers have received a 4-1 multiplier on their contribution to PLWA-led initiatives. In that same 5-year period PLWA invested \$687K in delivering lake initiatives. In 2020, this work continues:



Funding partners:



PLWMP Recommendations: Community Action Advocacy & Education (19)

Lead Role: PLWA (15), PLWMP (1), Municipal (2), County (1)

PLWA PROGRAMMING

1. Welcome to the Lake
2. Landscape Development Guidelines
3. Community Action Stewardship Tool Box
4. Mulhurst Revitalization Project
5. Online Coffee Conversations
6. Love the Lake Family Fun Week
7. Great Canadian Shoreline Clean Up
8. Invasive Species Prevention Program
9. PLWA AGM Business Meeting

NEW RESOURCES

1. PLWA Website
2. Welcome to the Lake Packages
3. Alberta Clean Runoff Action Guide 2020
4. Naturalize your Lot: Guide to Lake-friendly Landscaping
5. Water Level Fact Sheet
6. Weir Fact Sheet
7. Cyanobacteria & Nutrient Loading Fact Sheet
8. Birds of Pigeon Lake Information Page
9. Tip Sheet Series - Bird Conservation, Invasive Species Identification

IN DEVELOPMENT

1. Municipal Drainage Guide

COMMUNITY ENGAGEMENT

\$25K +

Individual Donations

STEWARDSHIP PROGRAMS

180 Participants | **22** Partners

7 Committees

Shoreline Erosion Education

4 New Resources

369 Engaged Online

Wildlife Habitat Support

4 Presentations | **4** New Resource

3351 Engaged Online

Invasive Species Awareness

3 Campaigns

#InvSpWk - February 24-28
Noxious Weeds - Spring & Fall
Clean Drain Dry - Summer

Great Canadian Shoreline Cleanup

55 Volunteers

Social Media Outreach

147 Posts | **47,000** Reach

ADVANCING THE PLAN

2c Watershed Stewardship Advocacy & Education
Encourage landowners to adopt proactive lake-friendly environmental management practices, landscaping and activities. Support land use policies and regulatory measures with public awareness and education. **2b** Lawn Fertilizers and Pesticides. **2f** Recreational land uses

3c Clean Runoff: Promote clean runoff practices on private and public properties as per the Alberta Clean Runoff Action Guide

5e Shoreline Practices and Restoration: Provide guidance documents, technical information, and support to shoreline landowners to implement healthy shoreline practices, shoreline restoration, and lake-friendly landscaping. **5d** Lake Shoreline Property Management Guidelines. **5g** Noxious Weeds: Continue invasive species eradication programs

7a Invasive Species: Complement the Government of Alberta's province-wide efforts with local initiatives to improve education and build local defenses to keep out aquatic invasive species. Measures include monitoring, public education, signage, and other initiatives

8 Improve regional collaboration, partnerships and organizational effectiveness to promote collective action

PLWMP Recommendations: Policy Statutory Plans & Bylaws (22)

Lead Roles: Municipal (15) PLWMP (5) Summer Villages (1) Government of Alberta (1)

PLWA Supporting Engagement & Resource Development

NEW RESOURCES

1. **Residential Construction Checklist (RCC)**
Primary Audience: Development Officer
Secondary Audience: Landowner & Contractors
2. **Watershed Regulations, Land Use Bylaws**
Consultant: Municipal Planning Services
Primary Audience: Municipal Councils
Secondary Audience: Development Officer
 - a. LAND USE BYLAW WATERSHED REGULATIONS: A Discussion Guide for Pigeon Lake Municipalities
 - b. PLWMP Land Use Bylaw Watershed Regulations Workshop Workbook
 - c. Municipal Implementation Guides (in Development)

RCC Committee Representation

CRYSTAL SPRINGS
GOLDEN DAYS
GRANDVIEW
PLWA
PLWMP

LUB Workshop

11/12 Municipalities
Participated

ADVANCING THE PLAN

Statutory Plans & Land Use Bylaws:

- 1b Retain Natural Vegetation
- 1c Wetlands
- 2a Lakeshore Environmental Area
- 3c Sediment and Erosion Control
- 3e Clean Runoff
Clean Runoff Action Guide
- 4a Groundwater Conservation
- 5a Shoreline and Tributary Setbacks
- 5b Shoreline Modification

Guidelines:

- 5d Lake Shoreline Property Management Guidelines
Develop a checklist and reference guide to assist development officers and lot owners in addressing the special development requirements for shore line lots.

PLWA congratulates the Summer Villages, Leduc County, and County of Wetaskiwin for moving forward with Statutory Regional Plan and Municipal Development Plans that incorporate environmental protection policies of the Watershed Management Plan and Model Land Use Bylaw.

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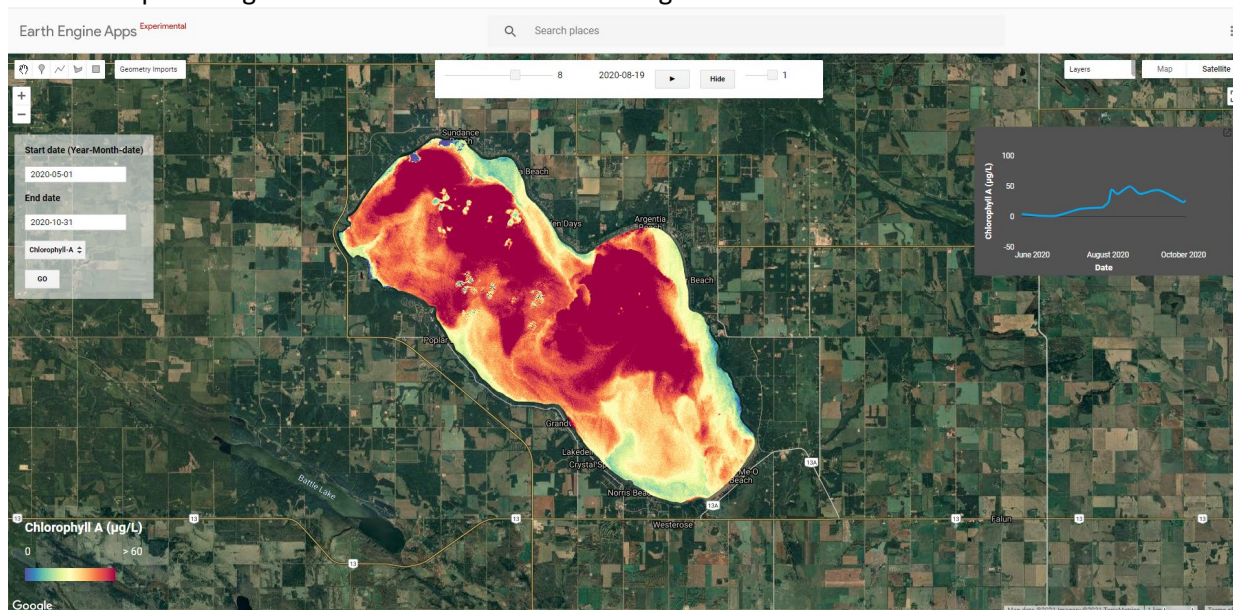
PLWMP Recommendations: Science & Technical (8)

Lead Roles: PLWMP (6) Municipal (1) Government of Alberta (1)

6a Advancement of Science: Identify knowledge gaps relating to the formation of cyanobacteria blooms and techniques for meaningful reductions. Prioritize specific investigations and research projects. Source funds and implement ongoing research for Pigeon Lake.

FILLING IN KNOWLEDGE GAPS

Earth Engine Map of Pigeon Lake offers a time series video to illustrate the dynamics of algal blooms. PLWMP Science committee members - University of Alberta, Alberta Lake Management Society, Alberta Environment and Parks and Alberta Biodiversity Monitoring Institute - are testing the algorithm, which was developed using LakeWatch data and satellite images via ABMI.



- 3** Monitoring Programs
- Satellite Monitoring Calibration Surveys (Jun- Sept).
- 100** samples
- Citizen Science – LakeWatch Zebra and Quagga Mussel Monitoring
- NONE DETECTED**
- eDNA Testing Augmented AHS Beach Safety Protocols

ACTIVE COMMITTEES & WORKING GROUPS

PLWA Board of Directors

Wayne Buskas, President, Ma-Me-O Beach
Michael Gaian, Vice President, Mission Beach
Betty Ann Lough, Secretary, Argentia Beach

Bob Gibbs, Treasurer, Silver Beach
Dave Crombie, Mulhurst Bay
Peggy Juchli, Silver Beach

Daniel Kenway, Sundance Beach
Kevin McKee, Johnsonia
Samuel Minde, Samson Cree Nation

PLWMP Steering Committee

Chair

Robert (Bob) Gibbs, (Chair) PLWA Director

Maskwacis Cree Nations

Melanie Daniels, Consultation Coordinator, Louis Bull

Chad Simon (Nipiy committee), Samson Cree Nation

Leonard Standing on the Road, Chief, Montana Band

Pigeon Lake Watershed Association

Catherine Peirce, Executive Director
Daniel Kenway, Director

Summer Villages

Don Davidson, Mayor, Grandview

Randal Kay, (APLM Chair), Mayor, Golden Days

Ron LaJeunesse, Deputy Mayor, Crystal Springs

Brian Meaney, Councillor, Poplar Bay

Rural Municipalities

Glenn Belozar, Councillor, Leduc County

Nicholaus Moffatt, Parks Planner, Leduc County

Dale Woitt, Councillor, County of Wetaskiwin

Alberta Environment and Parks

Arin MacFarlane Dyer, Integrated Resource Planner, AEP

Healthy Lake Partners

Wiebe Buruma, Agri-Enviro Research Specialist, Alberta Agriculture & Forestry

Sarah Skinner, Watershed Planning Coordinator, Battle River Watershed Alliance

Pigeon Lake Regional Chamber of Commerce

Richard Conrad, Vice President
Tom Karpa, Chair

PLWMP Science Committee: Don Davidson, Mayor Grandview; Evan DeLance, Spatial Data Scientist/Land Use Analyst, Alberta Biodiversity Monitoring Institute; Bob Gibbs, PLWMP Steering Committee Chair; Arin MacFarlane Dyer, Integrated Resource Planner, AEP; Catherine Peirce, Executive Director, PLWA; Bradley Peter, Executive Director, Alberta Lake Management Society; Caleb Sinn, Program Coordinator, ALMS; Rolf Vinebrooke, Professor Biological Sciences, University of Alberta; Guests: Paul Drevnick and Ron Zurawell, AEP

Welcome to the Lake Working Group: Cameron Benbow, Realty One Group (Chair), Christine McFarland, Maxwell Progressive; Cathren Dorchester, Royal LePage Parkland Merrick Duggan, Realty One Group Catherine Peirce, Executive Director, Pigeon Lake Watershed Association. The project also has support from partner groups in Alberta included Nature Alberta and the Alberta Lake Management Society and Alberta Low Impact Development Partnership and the Central Alberta Real Estate Association

Residential Development Checklist Committee: Don Davidson, Mayor Grandview; Bob Gibbs, PLWMP Steering Committee Chair; Randal Kay, Mayor Golden Days; Ron LaJeunesse, Deputy Mayor Crystal Springs; Catherine Peirce, Executive Director, Pigeon Lake Watershed Association