# ASSOCIATION OF PIGEON LAKE MUNICIPALITIES (APLM) ROLE

ALMS September 27 Work Shop

Presented by Brian Waterhouse APLM Chair

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### **TOPICS**

- Who is APLM
- APLM Role
- Sub-committees

### WHO IS THE APLM

The first meeting of the APLM was held on May 1, 1987 and the board is comprised of One elected official from each of the 2 counties & 10 Summer Villages,

Also have representatives for:

- First Nations Four Bands (past participation & have been invited)
- PLWA representative(s)
- Representative from Association of Summer Villages

### Organizational Mapping

County of Leduc ltaska Sundance Golden Days Jocelyn McKay, Clayton Stumph, Ralph Johnston, Rick Redl, Peter Pellatt, Randal Kay, Karen Belmont, John Schonewille, John Whaley, Rex Neilson Brian Waterhouse. Richard Tooke SV CAOs Reeve, Betty Ann Glassman, Ruth Rich Miller Harrison, Audrey Kelto Argentia Sylvia Roy, Ernie Elko, Donald Oborowsky, SILT LOAM Harold Wynne, Lisa Turchansky Silver Beach SAND LOAM June Boyda Alan Watt, Brad Clough, SAND Barb Martinson SILT SAND SAND LOAM SAND Poplar Bay **PLWA** Brian Meeney, Deb First Nations Susan Ellis, McDaniel, Laurie Rodgers Jeff Lloyd, et al SAND LOAM Four Bands Representatives Grandview SAND LOAM Don Davidson, Hugh Reid, SAND FINE GRAVE Ken Lewis **Crystal Springs** MaMeO Beach Doris Bell, Grant Churchill. Don Fleming, Pete Langelle, Kevin Pratt County of Wetaskiwin John Slater Norris Beach Brenda Shantz, Terry Van De Kraats, Garry Dearing Brian Keeler, Reiner Buchsdrucker, (Mayor), Wayne Meyers, Larry McKeever, Kathy Dave Evoy Rooyakkers, Barry Dunn



- It is understood there is no silver bullet to restore the health of Pigeon Lake
- Use a multi-pronged approach
  - Pigeon Lake Watershed Management Plan (PLWMP) A long term approach to see results in reducing nutrients into the lake.
  - In-lake option(s) short term approach to see results but sometimes the options need continuous applications to maintain results.

- APLM Partnered with Pigeon Lake Watershed Association (PLWA) and ESRD and work towards the common goal of restoring and protecting the health of the lake.
- PLWA is the lead organization for moving Watershed Control Options forward, with the significant support of the APLM (and individual municipalities) and ESRD.
- APLM is leading the in-lake options work, conducting our own review, and will move a few of them forward through the feasibility and/or cost/benefit analysis, with the significant support of ESRD and the PLWA.
- ESRD, as per past requests (via what is now the PLWMP), is lead on doing the work for the Nutrient Budget and for much of the Bathtub Model with the support of the PLWA and the APLM.

- Continue to support the PLWA with the co-development of the PLWMP. It is recognized the best approach to repairing the health of the lake is to significantly reduce the flow of nutrients into the lake.
- Support can be financially but also information-based by communicating to the rate payers recommendations from the PLWA which include:
  - Home site assessments
  - Education opportunities (Annual Information Meetings)
  - Guideline for Landowners in the Pigeon Lake Watershed
  - Web site links
  - News letters

- Financially support the PLWA. This is a non-profit volunteer group with no revenue source except donations.
  - Municipalities have access to funds, especially when acting as a regional group; access to regional collaboration grants.
  - Municipalities must explore every option to support the PLWA financially with annual donations not by project.
  - Some Summer Villages budget for a lump sum donation or a per lot donation. Has totaled ~\$4,500.
  - Summer Villages are now going into budget mode, now is the time to put this donation into the budget.

- Municipalities are the law and policy makers.
  - Choose the best tool from the tool-box: bylaw, policy, education.
  - Where applicable implement bylaws. Bylaws are quick but can also have a negative effect on some people and their attitude. For some communities policies have same effect.
  - Bylaws must be enforceable and can increase the administration load, especially if they are challenged.
  - Review existing Land Use Bylaws. Model Land Use Bylaw recently developed by the PLWMP MLUB Committee can be used as a guide, in part or whole by each municipality.
  - Education opportunities, eg. Annual Information Meetings, newsletters. May tend to take longer for results but will warm people up for change, perhaps lead to bylaws where applicable.

- Part of a councilor's responsibility is to represent their constituents.
  - Each council/community reflects the opinions of ratepayers in that community.
  - Ratepayers who receive messages from PLWA and others, may encourage their council to adopt the laws or policy;
  - Some communities may adopt changed behavior without need of a law; some may not be ready for that step, and more information/ education might be required.

# CONTROL OF BLUE-GREEN ALGAL BLOOMS

- On May, 2012, Chris Teichreb, ESRD, presented report
   <u>Lake and Watershed Management Options for Control of</u>

   <u>Nuisance Blue-Green Algal Blooms in Pigeon Lake</u>
- Outlined 35 options available to control of Blue-Green Algal Blooms.
- Identified which options would apply, might apply, and don't apply to Pigeon Lake.

### THE 35 OPTIONS

### These Options were listed as "applicable" to Pigeon Lake

- Management of Nutrient Input Reduction
  - Point Source Controls
  - Non-point source control
  - Non-point source pollutant trapping
- Mechanical Removal of Algal Blooms

### THE 35 OPTIONS

### Options listed which "might apply" to Pigeon Lake

- Circulation & destratification
- Dilution & flushing
- Dredging (wet or hydraulic removal)
- Light limiting dyes and surface covers
- 5. Sonication (sound waves)
- 6. Oxidants

- 7. Phosphorous inactivation
- 8. Sediment oxidation
- Settling agents
- 10. Enhanced grazing
- Herbivorous fish
- 12. Herbivorous zooplankton
- Pathogens
- 14. Addition of Barley Straw

### THE 35 OPTIONS

Presented at PLWA Leadership meeting September 1st, 2012

- oPLWA's work through Watershed Management Plan included Management of Nutrient Input Reduction
- Suggested APLM members be involved in review of "Applicable" and "Might Apply" options.

### FORMATION - APLM SUBCOMMITTEES

- The APLM formed 3 subcommittees to review Options
- The three subcommittees are:
  - Chemical/Mechanical Removal
  - Alternative Strategies
  - Water Augmentation
- Each subcommittee includes at least one APLM member to chair the subcommittee.
- No restrictions on who could be on the subcommittee or the number of people.

# APLM SUBCOMMITTEES – TERMS OF REFERENCE

- Goal to investigate the feasibility of each Option listed as per each subcommittee's Terms of Reference and report back to the APLM with findings.
- ESRD committed expert resources, as did the PLWA, for each of the subcommittees' review of Options.

### WHERE ARE WE AT?

- Subcommittees gathered information last winter and are in various stages of finalizing reports...
  - Water Augmentation, Final report received by APLM
  - Alternative Strategies, Final report completed and waiting to be received by APLM
  - Chemical/Mechanical Removal, Final report completed and waiting to be received by APLM
- APLM is developing the process for addressing the reports and their recommendations.

Thank You