Alberta Conservation Association
2016/17 Project Summary Report

Project Name: Fish Stocking Expansion – New Lakes

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Project Leader: Scott Seward

Primary ACA staff on project:

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Partnerships

Alberta Environment and Parks
Alberta Fish & Game Association
County of Grande Prairie
Lafarge
Taber Irrigation District
Town of Taber

Key Findings

- Desktop queries and recommendations from special interest groups and regional fisheries biologists identified an initial 49 waterbodies as potential trout stocking sites that were screened to 37 for further evaluation.
- Field evaluation of 37 waterbodies indicated that five waterbodies have fisheries potential. Potential sites include two Lafarge gravel pit ponds near Edmonton, a stormwater pond near the Crosslink Recreation Centre in Clairmont, an abandoned drinking water reservoir east of Lethbridge, and a dry trout pond on the outskirts of Taber.
- One waterbody (Durda Pond) identified during the 2015/16 fiscal year is currently undergoing review by Alberta Environment and Parks for addition to the provincial fish stocking list.

Introduction

There are approximately 300,000 recreational anglers and only 1,100 waterbodies with sport fish in Alberta; 800 waterbodies have natural fish populations and 300 have stocked fisheries (Zwickel 2012). Given the limited number of fishable waterbodies in Alberta, stocked waterbodies are very popular. Alberta Conservation Association (ACA) stocks 61 waterbodies under its Enhanced Fish Stocking (EFS) project. EFS ponds can receive upwards of 1,000 angler hours per hectare during the summer months (Fitzsimmons and Keeling 2015) making them some of the most fished waterbodies per hectare of surface area in the province. Existing EFS waterbodies are also very popular because they are often within a reasonable driving distance of

many anglers (Patterson and Sullivan 2013). Given the relatively limited fishing opportunities in Alberta, ACA is working to identify new lakes to stock and/or develop to create recreational fishing opportunities as part of the EFS project.

Methods

In the first year (2015) of this project, we identified 205 waterbodies for evaluation based on the methods outlined in ACA's internal document "A Provincial Process for Identifying and Evaluating New Ponds for Inclusion in the Enhanced Fish Stocking Project."

In 2016, we revisited and expanded on the list of candidate waterbodies identified in 2015. We relaxed the search criteria to include waterbodies with larger surface areas (>20 hectares) and waterbodies with potential for fish escapement; these waterbodies had originally been excluded from the 2015 field evaluation.

Once a list of candidate waterbodies was generated, we contacted landowners to see if 1) they would be willing to allow us access to assess the waterbody on their property and 2) they would be willing to consider allowing ACA to stock trout in the waterbody on their property. If landowners agreed, or were open to the idea of a mutually beneficial arrangement that allowed for fisheries access, we completed field assessments of the waterbody following field protocols adapted from the "Standard for Conducting First Time Lake Surveys in Alberta" (Rhude 2008). Field assessments were used to assess the physical, chemical and biological suitability of the waterbody for recreational trout fishing.

Results

A list of 49 waterbodies was generated through desktop exercises in 2016. We were able to deliberate on 37 of the 49 waterbodies (we were unable to contact private landowners for the remaining 12 waterbodies). Insufficient water depth and access issues resulted in 32 of the 37 waterbodies failing ACA criteria. However, we found five waterbodies worth further evaluation for potential addition to the EFS program: two abandoned gravel pits, one stormwater pond, one abandoned drinking water reservoir and one dry trout pond (Figure 1).

In addition to waterbodies identified in 2016, a waterbody from the 2015 search, Durda Pond, remains a feasible option for stocking. Durda Pond is currently undergoing review by Alberta Environment and Parks before being added to the EFS project.

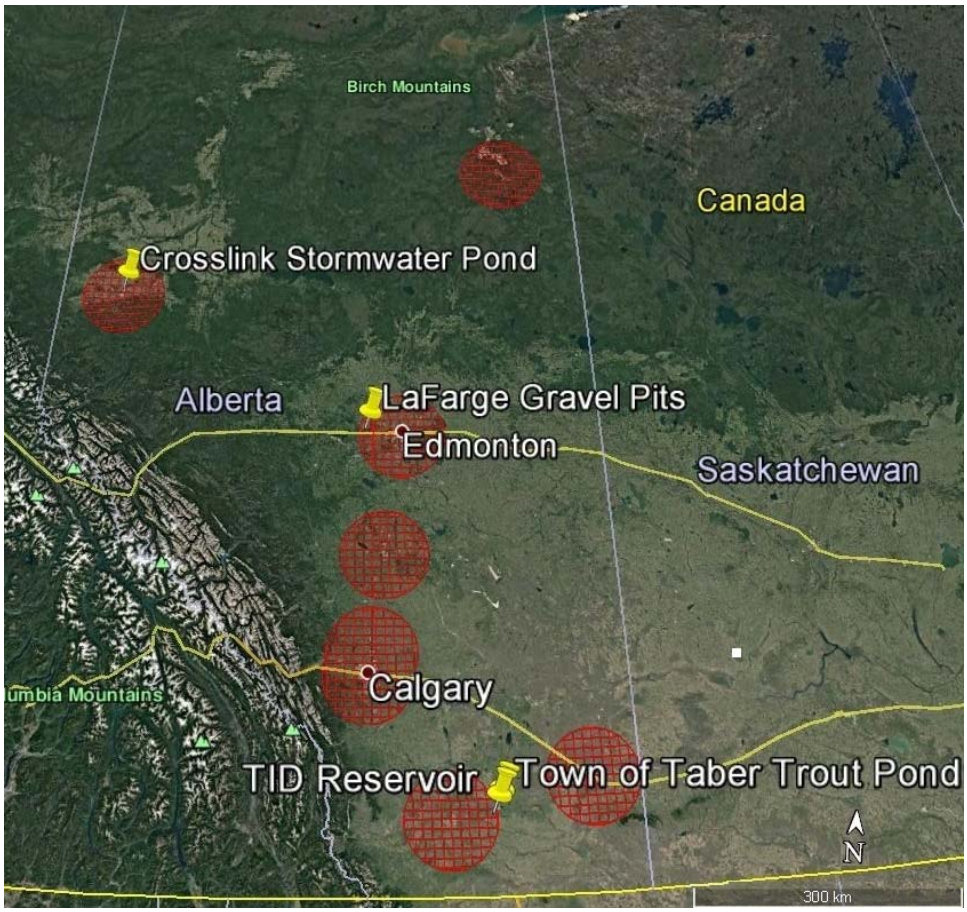

Figure 1. Provincial focal areas for the Enhanced Fish Stocking expansion, including 50 km buffers, and the five top candidate ponds with fisheries potential (yellow pins). *LaFarge gravel pits inclues two ponds. Map produced using Google Earth.

Conclusions

A limited number of waterbodies are suitable to expand the EFS project. However, recommendations from hunters, anglers and municipalities continue to identify waterbodies that meet EFS water-quality standards. The top five candidate waterbodies identified in 2016 are currently undergoing further evaluation and will likely be developed into recreational fisheries over the next few years.

Communications

- Produced an ACA brochure *Remember the Old Fishin' Hole? Let's Bring that Back*.

Literature Cited

Fitzsimmons, K., and B, Keeling. 2015. Stocked trout survival and camera-based angler survey at selected ACA stocked ponds. Data Report, D-2016-106, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 25 pp + App.

Park, D. 2007. Sport fishing in Alberta 2005: summary report of the seventh survey of recreational fishing in Canada. Alberta Sustainable Resource Development, Fisheries Management Branch. Edmonton, Alberta, Canada. 37 pp.

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Rhude, L. 2008. Standard for conducting first-time lake surveys in Alberta. Alberta fisheries management data standards committee. Alberta Sustainable Resource Development, Fish and Wildlife Division and Alberta Conservation Association. Edmonton, Alberta, Canada. 34 pp.

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Photos

Crosslink Stormwater Pond in Clairmont, Alberta, is a candidate waterbody for the Enhanced Fish Stocking project. Photo: Scott Seward

A Lafarge gravel pit located about 52 kilometres west of Edmonton is a candidate waterbody for the Enhanced Fish Stocking project. Photo: Britt Schmidt

Map showing two Lafarge gravel pits located about 52 kilometres west of Edmonton that are candidate waterbodies for the Enhanced Fish Stocking project. Photo: Google Earth

A Town of Taber abandoned water reservoir located about 51 kilometres east of Lethbridge is a candidate waterbody for the Enhanced Fish Stocking project. Photo: Logan Redman

Trout pond on the outskirts of Taber that is a candidate waterbody for the Enhanced Fish Stocking project. Photo: Scott Seward