

SUMMARY OF THE STATE OF THE LAKES REPORT FOR DOG AND CRANBERRY LAKES

Introduction

The Dog and Cranberry Lakes Association has completed a State of the Lakes report as the first step in the preparation of a lake stewardship plan. The report is a compilation of all known information about Dog Lake and Cranberry Lake and their surrounding environment (the Lakes). The Report also includes draft recommendations for action to be considered in the preparation of a Lake Stewardship Plan by the DCLA (the Plan) that will guide stewardship activities and land use policy recommendations for long-term protection, maintenance, and restoration of the Lakes and their immediate environment.

The final recommendations should represent a consensus view of all interested parties and be within the power of the DCLA to implement. Public consultation is an opportunity for all interested parties to have an impact upon the recommendations in the Report and hence on the Plan. The Report is a long and detailed document. The following summary of the Report is intended to inform all stakeholders of the state of the lakes and to encourage feedback and comments so that the DCLA can prepare the lake stewardship plan. The full report is available on the DCLA website in draft form as new information is being added as it becomes available.

Values and Issues

The Report first presents values and issues that had been identified in a survey of DCLA members and the general public. The majority of participants in the survey indicated that water quality, protection of wildlife, reduced development and respect for the environment were a top priority in their hopes for the future of the lakes.

Participants identified the special characteristics of the two lakes that they valued. These include the variety of natural shore lands, access to the Rideau Canal, wildlife sighting opportunities, undeveloped islands, scenic beauty and generally good swimming conditions. When asked to identify what they valued the most, water clarity, presence of wildlife and birds, peace and tranquility and properly maintained septic systems ranked highest. Participants stated that aquatic plants, fishing tournaments, algae blooms and invasive species were most likely to affect their enjoyment and character of the lakes.

Finally, participants offered a number of additional comments and observations that reinforced the general view that the natural character of the lakes need enhanced protection. Specifically, respondents felt that there needs to be more community involvement in the Association, no net loss of environmental values with new development, better control over agricultural runoff and septic system inspections.

Characteristics of the Lakes

Dog & Cranberry Lakes are part of the Cataraqui River watershed, and are situated in the lower reaches of the Cataraqui River. The Cataraqui River is the largest watershed within the Cataraqui Region Conservation Authority (CRCA), and generally flows in a southwesterly direction emptying into Lake Ontario at Kingston. The primary feature of the watershed is the numerous lakes many of which form part of the Rideau Canal system from Newboro to Lake Ontario. Dog Lake is a distinct body of water west of Cranberry Lake. It is separated from Cranberry Lake by a long and narrow peninsula that terminates at a wide channel called the Fiddlers Elbow that joins the two lakes

Cranberry Lake is a long rather narrow lake located east of Dog Lake. Hydrologically, it forms a portion of a very large body of water consisting of Whitefish Lake, Little Cranberry Lake both upstream, Cranberry Lake and Dog Lake between Jones Falls and Upper Brewers Lock stations. The present day configuration of the two lakes are a result of the construction of the Rideau Canal 200 years ago that raised water levels to provide for navigation. This large scale flooding resulted in the creation of Cranberry Lake and the southern basin of Dog Lake, that are generally shallow and warm, thus ideal conditions for aquatic plants and algae to thrive.

Landscape Character

The Report notes that the Rideau Canal, that includes all of Dog and Cranberry Lakes, is an iconic Canadian landscape that is characterized by a variety of lockstations, urban and agricultural landscapes, heritage districts, wetlands, woodlands, and scenic shorelands which collectively create the Canal's unique and distinctive heritage environment. The Report provides recommendations for Plan actions that focus on identifying the landscape character and the visual values of the shorelands of the Rideau Canal through a partnership with Parks Canada, the Association and the two municipalities.

Designations

The Report reviews the national and international designations that pertain to the Lakes, including the Rideau Canal National Historic Site, the Rideau Canal World Heritage Site, the Rideau Canal Heritage River and the Frontenac Arch Biosphere reserve. It includes a recommendation that an ongoing relationship be established and maintained with Parks Canada and the Frontenac Arch Biosphere Network so that DCLA may contribute to their conservation and education goals.

History

The Report provides a history of the Lakes, including a review of the natural and human history, First Nations occupation of the Rideau and Cataraqui watersheds, the construction of the Rideau Canal, the history of the Upper Brewers lockstation and Brewers Mills, the settlement and development of the Lakes area, and identification of local places of historic interest. This chapter includes recommendations for actions by the two municipalities to undertake an inventory and assessment of potential heritage properties around the Lakes.

Climate, Climate Change and Lake Impacts

This part of the Report describes the local climate of the Lakes and considers the possible impact of climate change on the Lakes. The most likely result will be increased nutrient levels as a result of higher temperatures that will lead to more aquatic plant growth and algae blooms. It provides recommendations for Plan actions relating to the encouragement of local stewardship actions to help buffer against climate change impacts, promotion of farming and stormwater best management practices, and promotion of measures to increase water conservation and storage around the Lakes.

Geology and Soils

The Report reviews the underlying geology and soils of the Lakes and the surrounding area.

Water Management

The roles of Parks Canada, CRCA and Portage Power Company in managing the water levels of the Lakes and upstream lakes is explained in the Report, and a recommendation to provide the membership with any pertinent

information about water levels provided by Parks Canada.

Water Quality

The Report observes that “‘Good’ water quality ranks as the most important value identified by the community, and maintaining or improving water quality is the most important issue needed to be addressed by the Lake Stewardship Plan. The Report provides an historical perspective on the water quality of the lakes and reviews the annual water sampling that takes place on the Lakes. The Report provides a detailed review of the trophic status of the Lakes, which is a measurement of the biological productivity of the Lake along with other information on water characteristics. The Lakes generally have a poor (eutrophic) status, but this varies by depth and location. The presence of substantial legacy phosphorus in the bottom of the lakes, and present day nutrient inputs from surrounding land uses and intensive shoreland development means that algae blooms in the late summer and fall will likely be an annual occurrence.

The Report makes several recommendations for the Plan in relation to water quality, including sampling programs, measurement of ice-on/ice-off, advocacy for a septic inspection program and for farming best management practices, and promotion of development that will result in a net environmental benefit.

Natural Environment

The Report reviews the natural environment of the Lakes, including the County of Frontenac Natural Heritage Study, the shoreland and littoral zone surveys of the Lakes, significant natural areas and features, forest cover, wetlands, aquatic vegetation, species at risk, invasive and nuisance species, and wildlife. The Report notes that, although the Lakes and surrounding areas have a strong biodiversity of plants and animals, relatively dense undeveloped coniferous and mixed forest systems with a few scattered fields, and substantial areas of wetlands, there are threats to the natural environment from lack of knowledge, development and invasive species. Numerous recommendations for the Plan relating to the natural environment are presented, including conducting inventories of flora and fauna and a littoral zone habitat study, promoting the conservation of significant woodlands, monitoring and educating re species at risk and invasive species, evaluating unevaluated wetlands, promoting shoreline naturalization, and promoting the establishment of boat-washing stations at boat launches to reduce the spread of invasive species.

Fishery

The fish caught in the Lakes are reviewed in the Report along with the threats to fish population, which include shoreland development, fishing tournaments, fishing at spawning sites and invasive species. The recommendations for the Plan include working with CRCA in promoting best management practices for shoreline and water development, encouraging fishing tournament organizers to minimize the impact of these events on the natural environment, requesting increased enforcement, undertaking an inventory of fish habitat and the investigate the feasibility of establishing of temporary fish sanctuaries around bass spawning areas during the critical spawning period.

Land Use

The Report notes that the City of Kingston and the Township of South Frontenac both have progressive land use policies to protect natural heritage features, water quality and cultural heritage values along with strict controls over shoreland development. The new Official Plan for the Township encourages and supports the development of lake plans by lake associations. Most of the shoreland in both municipalities is designated as Rural that allows for residential and tourist commercial development. A large area of land around the southern basin of Dog Lake is designated as Agricultural. There are a substantial number of environmental protection areas in the form of wetlands on the bed of the Rideau Canal.

The City of Kingston has similar policies to preserve the largely rural undeveloped character of the east shore of Cranberry Lake that is located within the City.

Dog Lake has 330 developed waterfront residential lots and 89 vacant lots. Cranberry Lake has 106 developed waterfront residential lots and only 4 vacant.

The potential for large scale waterfront development in the form of a residential plan of subdivision is limited owing to topographic constraints, access, wetlands and restrictive land use policies. The most likely scenario is the development of the existing vacant lots and incremental lot creation

through severance.

The Report advocates for a tree cutting bylaw to preserve shoreland vegetation, land use controls to protect significant wetlands, and habitats of rare and endangered species and promote the conservation of properties that have high value for conservation through the Nature Conservancy and the Rideau Waterway Land Trust.