Intern Summary-Possible Effects of Lake Regulation on the Gulf of Maine

Background

The Friends of Sebago Lake (FOSL) and Friends of Merrymeeting Bay (FOMB) seek a well-qualified intern to help study possible detrimental effects from dam controlled Maine lakes. The two organizations lead the way in this area using scientific research to inform federal and state government agency regulators and interested citizens about the often harmful "larger picture" as well as regional effects of artificial lake level regulation on the natural hydrologic cycles. FOMB and FOSL are actively promoting discussion on how the widespread historical and contemporary presence of even small dams, may have major cumulative effects on physical, chemical and biological environments of lake, river and marine waters.

FOSL and FOMB have become aware of harmful impacts attributed to flow regulation policies, not only on immediate lake environments, but also on the water continuum to coastal seas. Inappropriate dam and lake level management may have <u>long-term effects ranging from fishery health to climate change</u>. Many naturally formed lakes in Maine have a dam that has increased the lake surface height and or controls the surface elevation. FOSL learned there is a paucity of readily accessible information on the history of these dams and their flow regulation. By assembling information of past flow regulation to compare with present policies and practices, FOSL and FOMB will better be able to determine possible impacts to coastal ecosystems and haline currents.

Given the information we have assembled regarding impacts of large Northern dams on the climate and marine ecosystems, some just coming to light, we believe that the information collected by an intern on lake histories will help to generate future supplementary scientific investigation. This may help shed light not only on changes to the marine and freshwater tidal riverine ecosystems of Casco Bay and Merrymeeting but provide further detail on why the Gulf of Maine is one of fastest warming bodies of ocean water in the world.

Internship goals

- 1. To assemble historical information on lake and possibly riverine dams and their flow regulation in the Kennebec and Androscoggin watersheds.
- 2. Work on presenting the collected information in an electronic format.

Methods of obtaining information for lakes and reservoirs:

- 1. Internet research
- 2. Contacting regulatory agency information i.e. FERC, DEP, IFW
- 3. Historical Newspapers- online, libraries
- 4. Contacting town governments
- 5. Contacting lake associations
- 6. Contacting historical societies
- 7. Lake photographs/postcards
- 8. Field Work- site visits to dams and lakes
- 9. Photographing lake wetlands and shorelines
- 10. Collecting fishery information
- 11. Lake environmental records/studies

Applicant

The successful applicant will be curious, industrious, very organized and enterprising. The applicant will be able to successfully follow leads, interview various people, dig into archival materials and record findings in an organized manner suitable for public and scientific use. Experience with developing findings in a web format will be helpful.

Submission Requirements

Cover letter and CV in electronic format

Email: QLF@QLF.org Phone: (514) 395-6020

Location & Timing

Suggest 15, June- 15, August 2021 but can be negotiated. We are flexible. Intern can work from home or FOMB office in Bowdoinham. Reasonable proximity to Augusta and lower Merrymeeting Bay watershed is probably a necessity.

Supervision

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