SOUTHERN LAKES ENHANCED STORAGE CONCEPT



Marsh

Tagish

Effects on wildlife, waterfowl and wetlands

April 2015



**Last month** we sent you a pamphlet that outlined our research into increasing water storage in the Southern Lakes. The concept would see us holding more water in Marsh, Tagish, and Bennett Lakes in the fall so it could be used later in the winter for power generation.

We also shared some concerns Southern Lakes residents have asked about with regard to this concept. Over the next few months, we'll be providing you with further information on those topics of concern.

This month we look at wildlife, waterfowl, and wetlands.



# IMPACT ON BIRDS

## Above water

Some types of plants currently found at the water's edge might spread to slightly higher ground. This is good news for waterfowl and shorebirds; an increase in wetland habitat means more available food.

## **Below water**

There should also be more food for migrating swans that feed mostly on plants submerged in the water.

## **Nesting habitat**

Nesting habitat should not change, other than to perhaps shift to slightly higher elevations.

In researching this potential project, Yukon Energy learned there would be no harm done to wetlands in the area. Studies looked at more than 200 species of plants and animals, and revealed the concept would have a positive impact, a very slight negative effect, or that there are things that can be done to prevent any significant negative effects.



# IMPACT ON OTHER WILDLIFE

## Food availability

There should be more food both for water animals (muskrats/otters/beavers) and land mammals (moose/caribou/bears) since we expect to see more herbs, sedges, and shrubs.

## Den changes

Slightly higher fall and early winter water levels could shrink the amount of dry area inside existing muskrat and beaver dens. This should be remedied as these animals adjust to the new conditions.

## Water habitat

There should be more under ice habitat for water mammals.



## **Adaptive Management**

Before the project could go ahead, limits of acceptable/ unacceptable change would be set. Careful monitoring would be done to ensure there was no significant harm to the environment under the new rules.



# Coming Soon

In May, watch for the next pamphlet in this series, focusing on fish and fish habitat.



# **Be informed**

Click on the 'Southern Lakes Enhanced Storage' button on **yukonenergy.ca** to find the studies and read all the reports that have been done on this concept.

### SOUTHERN LAKES ENHANCED STORAGE >

#### **Baseline Studies**

- Southern Lakes Wind Analysis
- Baseline Report 2010 GEOMORPHOLOGY
- Baseline Report 2011 GEOMORPHOLOGY
- Baseline Report AMPHIBIANS
- Baseline Report AQUATIC AND
  WETLAND BIRDS
- Baseline Report HYDROLOGY
- Baseline Report RARE PLANTS
  Baseline Report TERRESTRIAL AND AQUATIC MAMMALS
- Baseline Report WETLAND ECOSYSTEMS
- KGS Hydraulic Modelling of Yukon R FNL2010
- Overview of Baseline Studies

### Preliminary Effects Assessments

- AQUATIC ECOSYSTEMS
- MARSH WAVE RUN UP
- TAGISH RIVER EROSION

- TAGISH WAVE RUN UP
- TERRESTRIAL ECOSYSTEMS
- YUKON RIVER CHINOOK REARING AND MIGRATION
- YUKON RIVER CHINOOK SPAWNING AND PASSAGE
- YUKON RIVER WETLANDS

#### Workshop Reports

- Aquatic Terrestrial Workshop Report
- Erosion Workshop Report
- Groundwater Workshop Report

#### Mitigation

- Groundwater Mitigation Approach
  and Concepts for Discussion
- Erosion Mitigation Approach and Concepts for Discussion

#### Fact Sheet

 Marsh Lake Storage Project – Fact Sheet



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You