

# Muskrat Falls Project: Dietary Survey & Hair Sampling Program

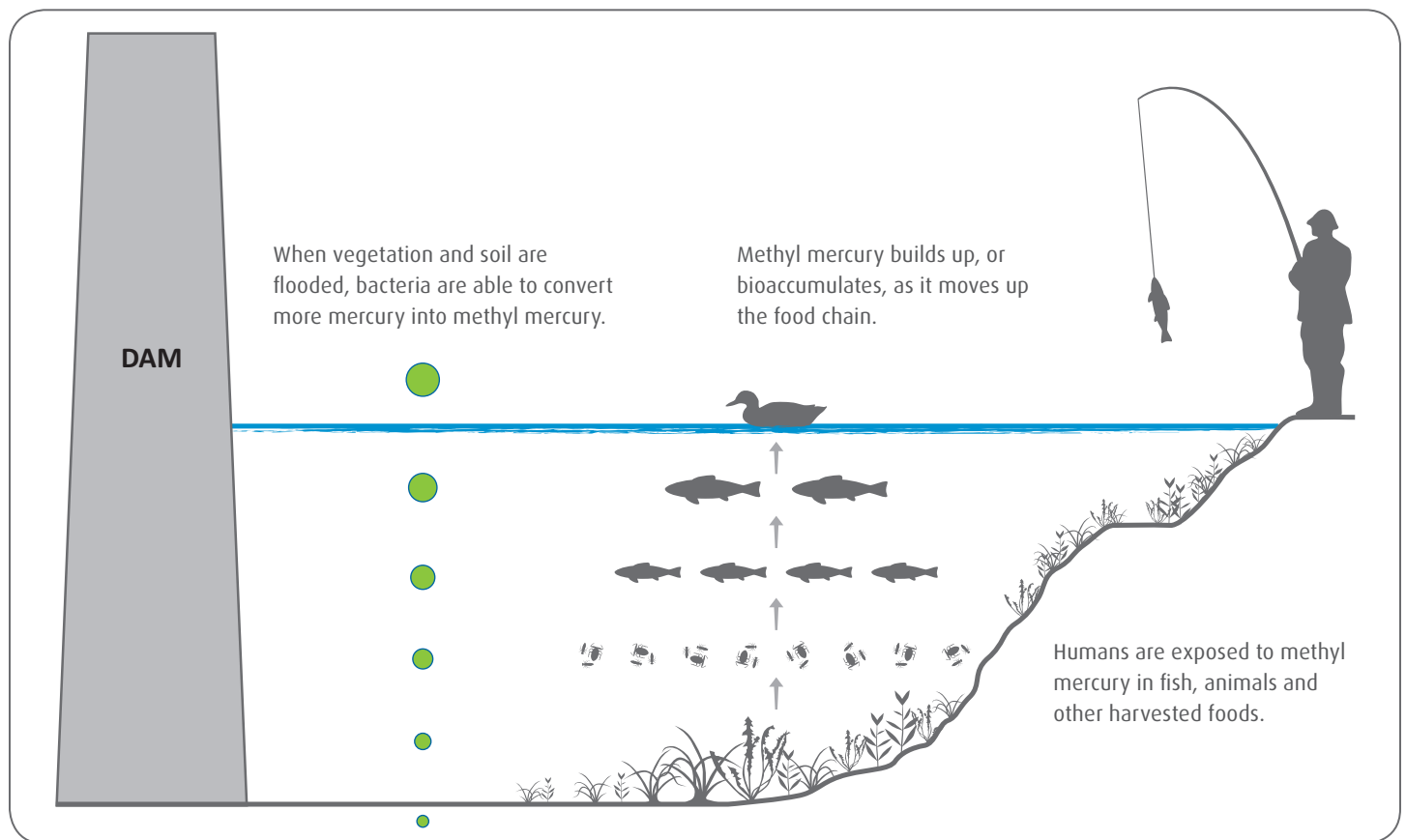
Methyl mercury has been studied extensively at many hydroelectric projects around the world and is well understood. As part of the Muskrat Falls Project, the project team is conducting research to determine baseline methyl mercury levels in Labrador communities adjacent to the Churchill River. The research study will involve dietary surveys and hair sampling with residents of all ages.

## WHAT IS METHYL MERCURY?

Mercury is naturally present in soil, rocks, plants and animals, and many of the foods we eat every day. When a reservoir is created, mercury naturally present in the newly flooded soil is released into the water. The flooded vegetation decays and provides food for bacteria. Certain types of bacteria in water can convert mercury into methyl mercury. These bacteria produce more methyl mercury because of the increase in available mercury and food.

## HOW DOES METHYL MERCURY GET INTO THE FOOD CHAIN?

Methyl mercury builds up, or bioaccumulates, as it moves up the food chain. When people harvest fish, animals and other foods in the area, they too can be exposed to increased levels of methyl mercury.



## WHY STUDY METHYL MERCURY?

After the reservoir is created at the Muskrat Falls hydroelectric generating facility in 2016, increases in methyl mercury levels are predicted downstream, peaking approximately 10-15 years later and then returning to current levels over time. This is consistent with other hydro developments around the world.

During the environmental assessment process, the project team committed to measure baseline methyl mercury levels in communities adjacent to the lower Churchill River before the reservoir is created at Muskrat Falls. The Lower Churchill Project will also carry out regular monitoring on the lower Churchill River each year. Results of monitoring combined with baseline levels, will determine when consumption advisories for certain foods are needed based on guidelines established by Health Canada.

## THE STUDY

The Lower Churchill Project is conducting research to determine baseline methyl mercury levels in Labrador communities adjacent to the Churchill River. The research will involve dietary surveys and hair sampling with residents of all ages from Sheshatshiu, North West River, Mud Lake, Happy Valley-Goose Bay, Churchill Falls and Rigolet. The project team is seeking 330 people to participate in the study.

During the dietary survey, participants will be asked questions about their diet, such as which foods they eat, how often they eat various foods, how the food is normally cooked, and serving sizes. Following the survey, a trained and qualified member of the study team will collect a small hair sample (3 cm long) near the base of the scalp.

Information and samples will be collected from participants one time only. The survey will take approximately 45 minutes to complete. The information collected will be completely confidential, however participants can request their own results from the study team if desired.

A \$50 Visa gift card will be offered to a limited number of survey participants in each community.

Results of the research are expected in mid-2015. A report on the study will be prepared and available at [muskratfalls.nalcorenergy.com](http://muskratfalls.nalcorenergy.com).

## DID YOU KNOW?

Hair sampling is used in major studies of human methyl mercury exposure around the world.

Methyl mercury stays in scalp hair for a long time and can indicate how much methyl mercury a person has been exposed to during the time that the hair has grown. In addition, the amount of methyl mercury in an individual's hair can reliably be linked to methyl mercury exposure through an individual's diet.

## HOW TO SIGN UP

The dietary survey and hair sampling program will be conducted in late 2014 and early 2015, as noted in the schedule below:

Date	Time	Event	Location
November 24	6 p.m. - 8 p.m.	Information Session	North West River Community Centre
November 25	9 a.m. - 6 p.m.	Survey and Sampling Program	North West River Community Centre
November 26	6 p.m. - 8 p.m.	Information Session	Mary May Healing Lodge, Sheshatshiu
November 27	9 a.m. - 9 p.m.	Survey and Sampling Program	Mary May Healing Lodge, Sheshatshiu
December 1	6 p.m. - 8 p.m.	Information Session	Happy Valley-Goose Bay, Hotel North 2
December 2 & 3	9 a.m. - 9 p.m.	Survey and Sampling Program	Happy Valley-Goose Bay, Hotel North 2
December 4	12 p.m. - 2 p.m.	Information Session	Churchill Falls Community Centre
December 4	2 p.m. - 9 p.m.	Survey and Sampling Program	Churchill Falls Community Centre
December 5	8 a.m. - 10 a.m.	Survey and Sampling Program	Churchill Falls Community Centre

**Note:** Research will be conducted in Mud Lake early in 2015.

If you or members of your family are interested in participating in the study, sign up at a public information session in your community or contact us at:

Email: [JackieWells@lowerchurchillproject.ca](mailto:JackieWells@lowerchurchillproject.ca)

Phone: 709-693-7721

Lower Churchill Project Office: 1-888-576-5454

For additional information about methyl mercury and your health, please visit Health Canada at [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)