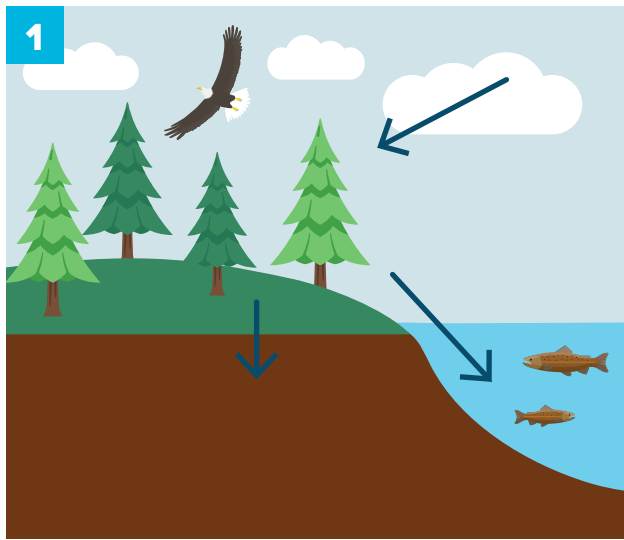
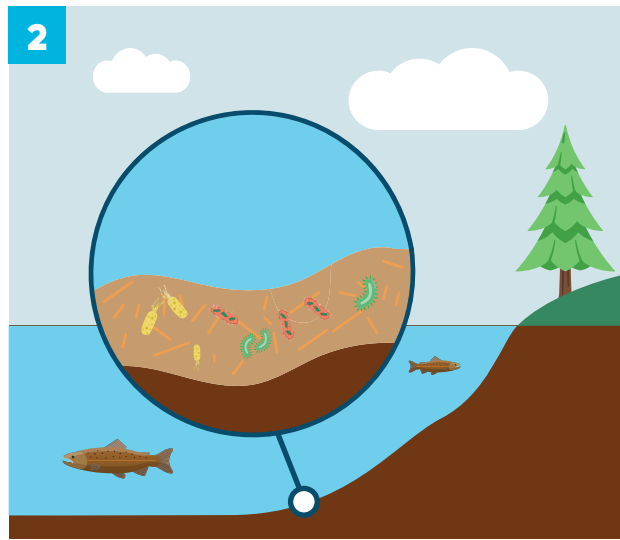


Mercury in our environment

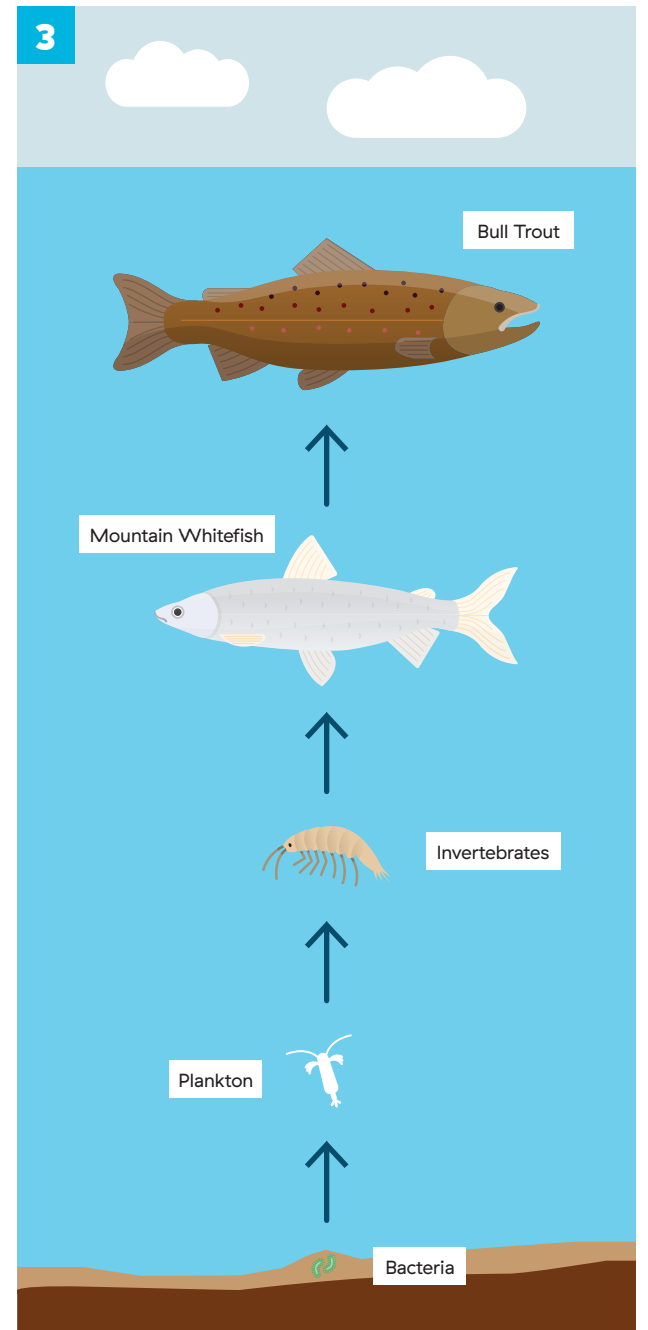
Mercury is a naturally occurring element that is found in low levels everywhere—in air, water, soil, plants, animals and humans.



Plants absorb mercury from the air. When vegetation decomposes, the mercury ends up in the soil. Mercury in the air can also end up in lakes and rivers, through snow and rain.

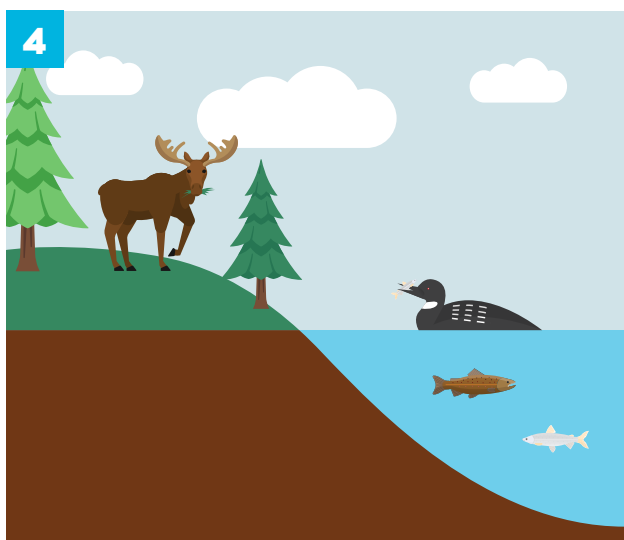


Bacteria that live at the bottom of lakes, rivers and oceans feed on organic material and turn some of this mercury into methylmercury.

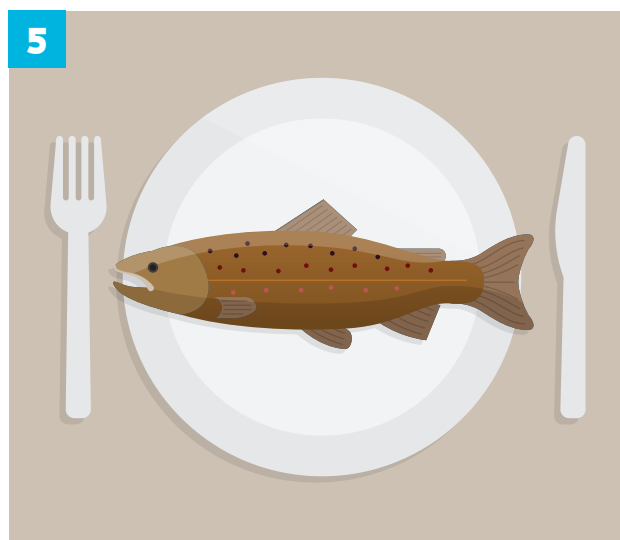


Methylmercury levels increase up the food chain as animals absorb methylmercury from their food (e.g. invertebrates eat plankton, big fish eat small fish).

Predatory fish have higher levels of mercury than their prey. That's why lake trout, bull trout and walleye have more mercury than kokanee, whitefish or rainbow trout.

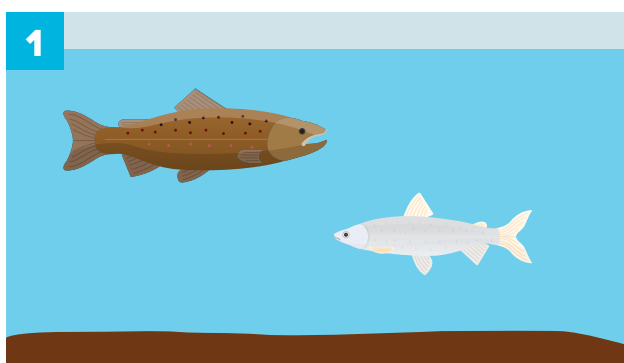


The amount of methylmercury in an animal depends on the amount and type of fish it eats. Animals that don't eat fish, such as moose, have very low levels of methylmercury. But other wildlife that do eat fish, such as loons, can have higher levels of methylmercury.

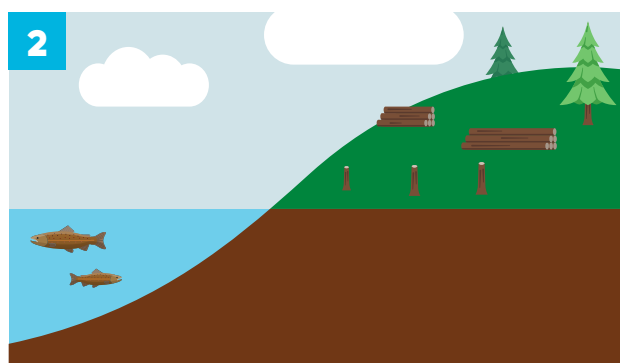


We consume methylmercury whenever we eat fish, or animals that eat fish.

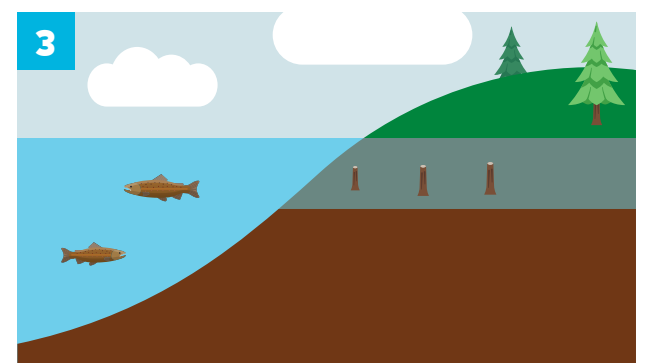
MERCURY IN THE SITE C RESERVOIR



Currently, methylmercury levels in Peace River fish are relatively low—lower than fish in other lakes and reservoirs in B.C., and among the lowest in Canada.



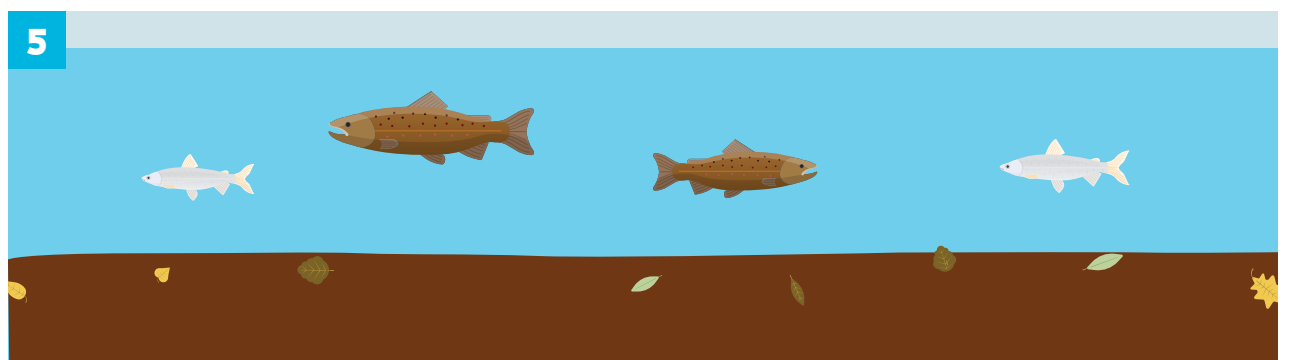
We're removing most of the vegetation in the reservoir area to reduce organic material that will end up underwater.



In 2023, when the Site C reservoir is created, parts of the existing shoreline will be permanently covered with water.



Methylmercury levels in fish in the reservoir will initially rise as bacteria decompose organic material in newly submerged areas and convert mercury to methylmercury.

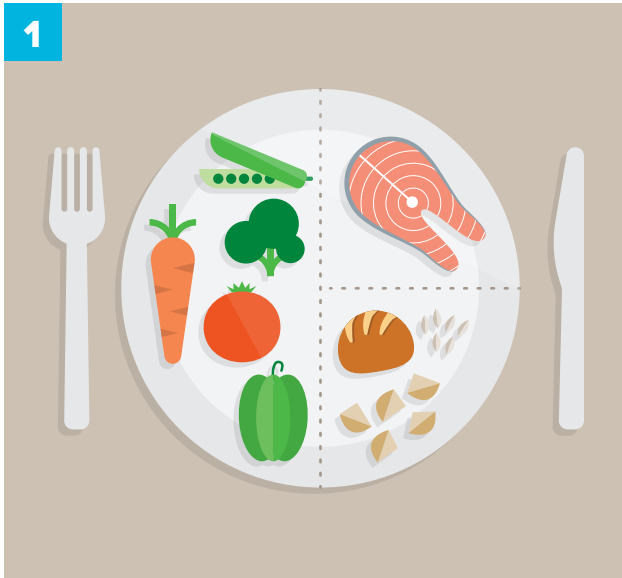


Eventually, organic matter becomes scarce at the bottom of the reservoir. Methylmercury creation slows down and levels drop throughout the food chain.

Methylmercury levels in fish are predicted to increase by 3 to 4 times, before slowly returning to a new baseline 20 to 30 years after the reservoir is created.

Fish methylmercury levels downstream of the dam, as far as Many Islands, Alberta, are predicted to initially double, before returning to a new baseline.

YOU CAN EAT FISH FROM THE SITE C RESERVOIR



Canada's Food Guide recommends eating fish as a nutritious and healthy source of protein.

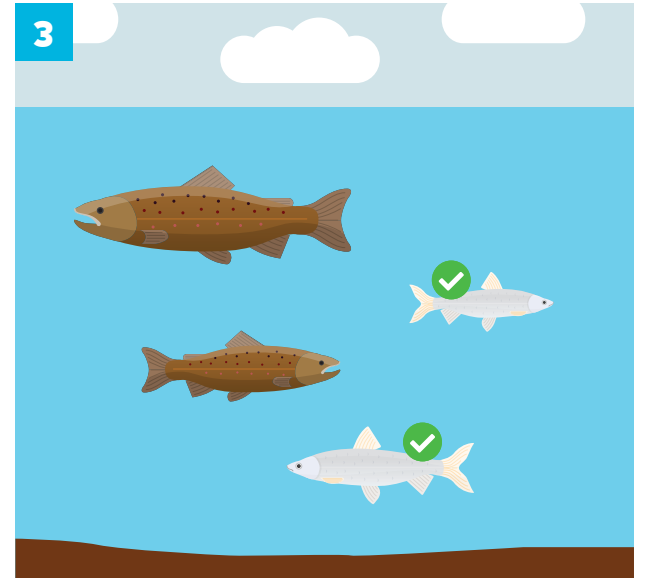
2 **Bulltrout**

Children
4 servings of fish every month

Adults
20 servings of fish every month

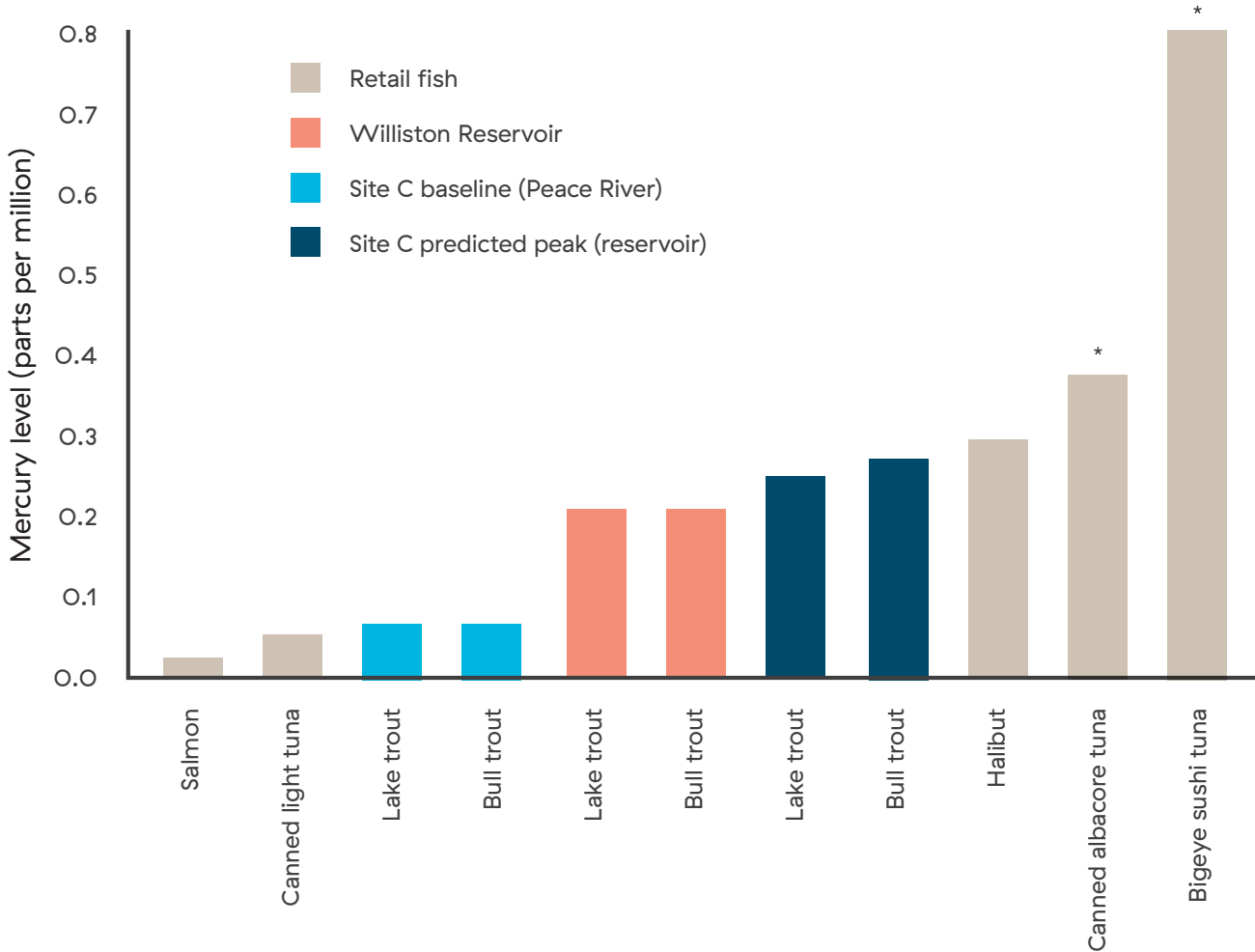
Women of child-bearing age
8 servings of fish every month

Based on Health Canada's guidelines and BC Hydro's predicted fish methylmercury levels, people can eat between four and 20 servings a month of long-lived and predatory fish, such as bull trout, from the Site C reservoir.



People who eat more than the recommended number of servings of fish, such as bull trout, from the Site C reservoir may need to limit their consumption to stay within Health Canada's safe level of methylmercury.

PREDICTED METHYLMERCURY LEVELS IN SITE C RESERVOIR FISH, COMPARED TO RETAIL FISH

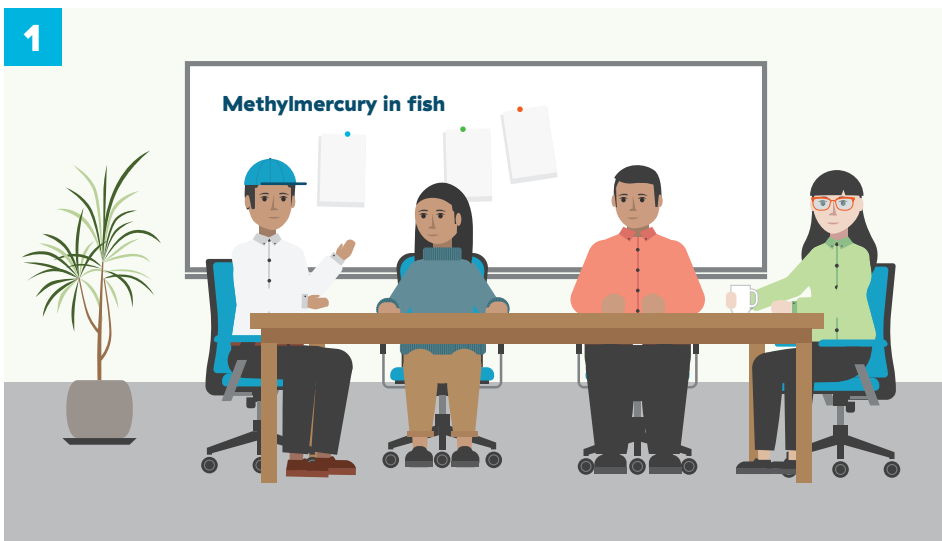


Data for retail fish (sold in restaurants and grocery stores) are from Health Canada (2007) and Lowenstein et al. (2010).

*Refer to Health Canada for consumption guidelines for canned albacore tuna and fresh bigeye sushi tuna.

For more info on Health Canada's consumption advice visit: canada.ca/en/health-canada/services/food-nutrition/food-safety/chemical-contaminants/environmental-contaminants/mercury/mercury-fish-questions-answers.html#ca2

WORKING TOGETHER TO MONITOR METHYLMERCURY LEVELS



Our understanding of methylmercury in fish after filling the Site C reservoir is based on scientific predictions and experience elsewhere. To verify these predictions, we're working with Indigenous groups, communities and health authorities to develop a methylmercury monitoring plan for Site C.



We'll regularly measure methylmercury levels in local fish and collect information on how much fish people are eating. This information will be communicated, in partnership with health authorities, to Indigenous groups and the general public.