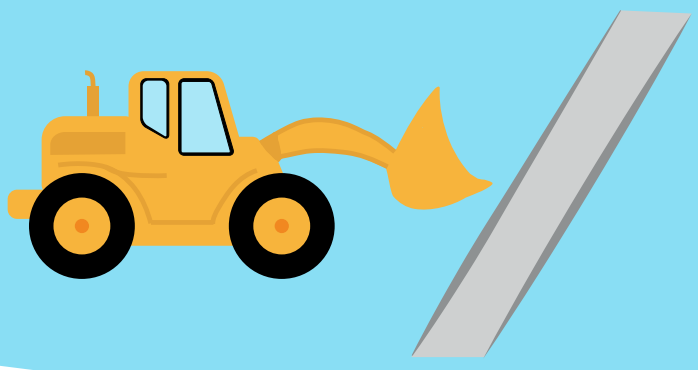
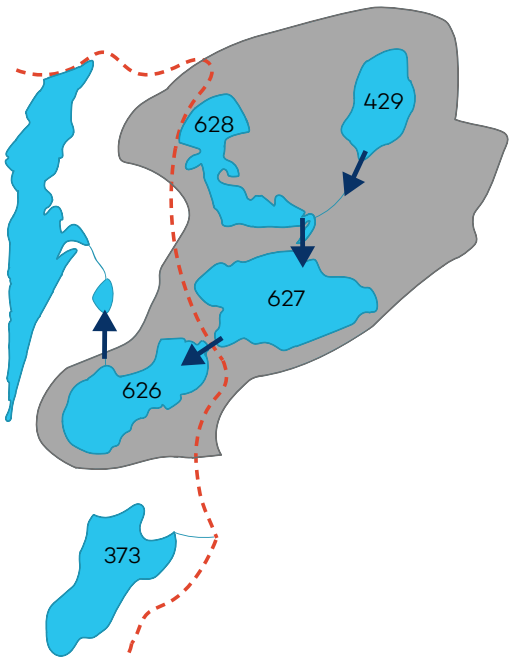
LAKE 626 DIVERSION PROJECT

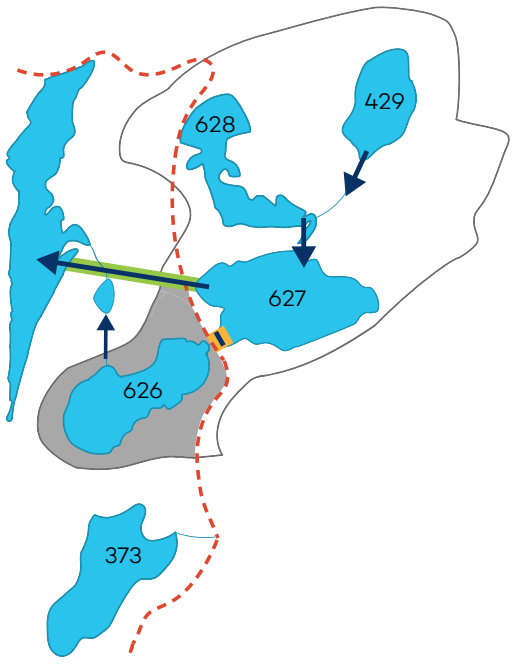
International Institute for Sustainable Development Experimental Lakes Area (IISD-ELA)



Industrial diversions and decreased precipitation due to climate change can reduce water inputs to lakes and rivers.



IISD-ELA researchers built a **diversion channel** and **dike** in 2010 to reduce water inputs to Lake 626.



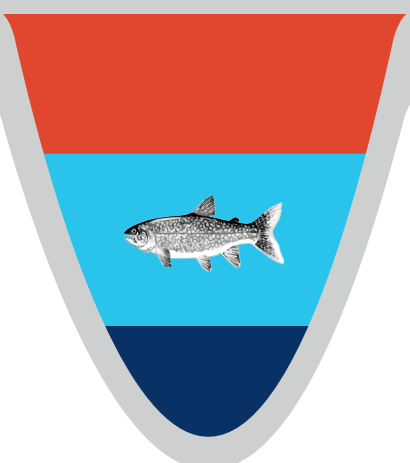
watershed area
388 ha >>>>>>> 74 ha

water residence time
2.1 years >>>>> 10.9 years

decreased water inputs lead to decreased dissolved organic carbon (DOC)

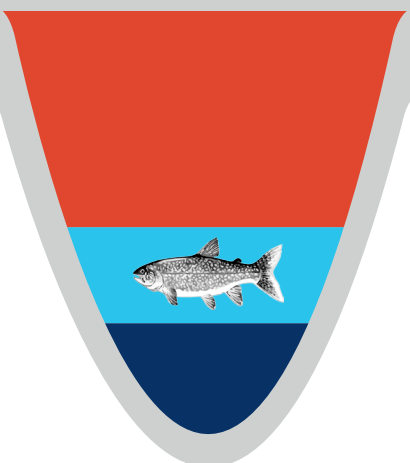
DOC from decomposed animal and plant matter makes lakes murky brown.

Lake trout, a cold water species, spend time in the middle layer of the lake where it's less than 15 C and there's lots of oxygen.



When there's less DOC, sunlight can travel farther through water, increasing the depth of the warm surface layer.

How will this affect cold water fish species? Research is ongoing, but so far trout are spending more time in water that has less than their ideal amount of oxygen.



PRE-DIVERSION

POST-DIVERSION

IISD Experimental Lakes Area (IISD-ELA) is a collection of 58 lakes in northwestern Ontario set aside for scientific research. But we don't conduct our experiments in a lab — we conduct them on entire ecosystems. Visit iisd.org/ela to learn more.

iisd|ela experimental lakes area