



Water Monitoring in Nunavut

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June 1, 2011





Overview

- Hydrometric Monitoring in Nunavut
- Partnership between Kivalliq Inuit Association (KIA) and Indian and Northern Affairs Canada
- Water Licenses Issued in Nunavut
- High Cost of Water Quality Sampling
- Options for Continuous Monitoring



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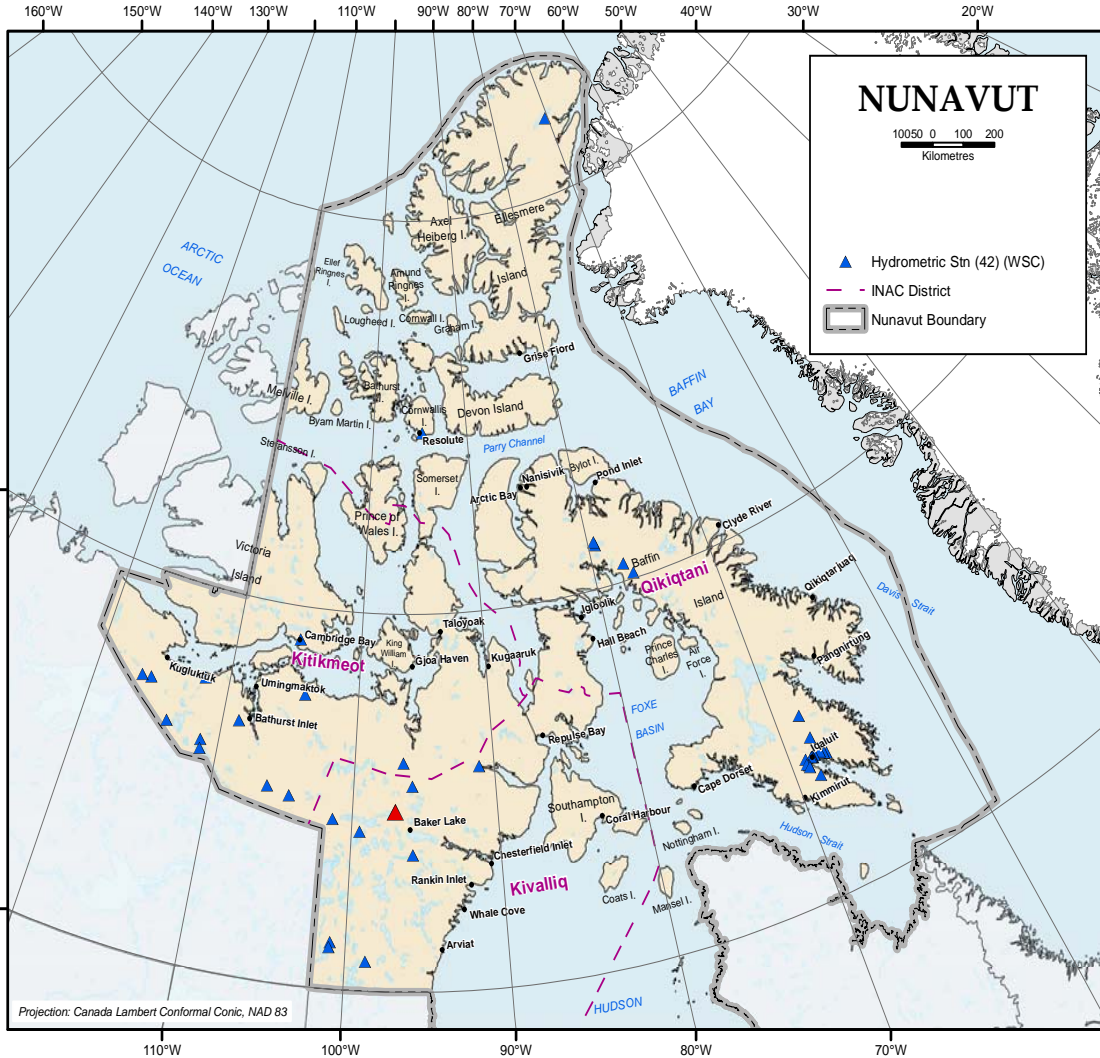
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Hydrometric Monitoring

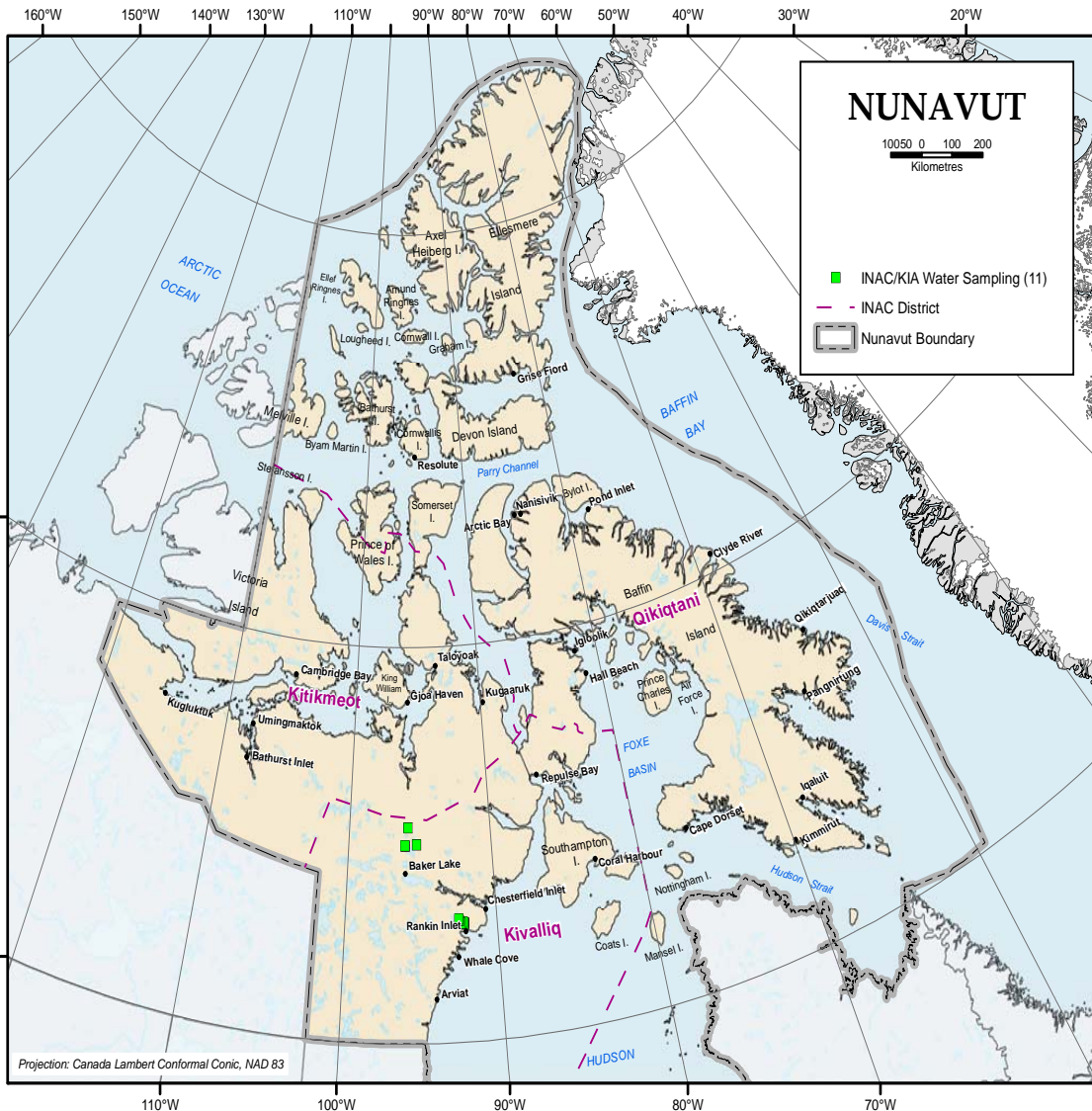


- 38 hydrometric stations
- Only one water quality station
- 44 new hydrometric stations identified





KIA/INAC Water Quality Partnership

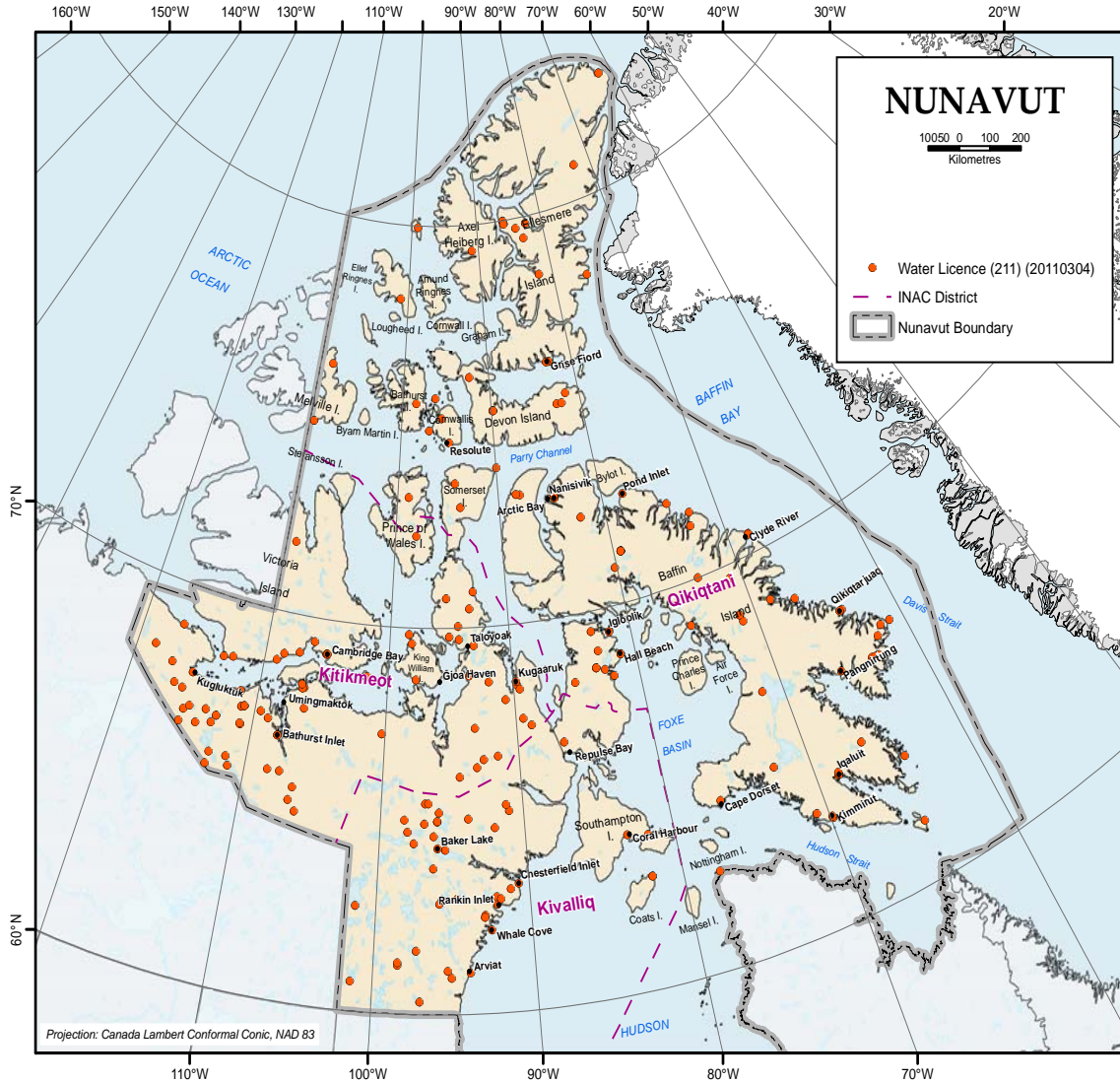


- Partnership started in 2004
- 11 sites monitored
- To provide baseline data
- Especially around the Meadowbank Gold Mine and Meliadine exploration project





Water Licenses in Nunavut



- 275 water licenses issued
- A variety of potential impacts to water.
- INAC ensures compliance to water licences issued by the Nunavut Water Board.





Cost Analysis

- Nunavut covers about 1/5th of Canada's area.
- All water sampling requires an air flight into the sites.
- The closest water analysis lab is in Yellowknife.

A cost example for sampling in the Kivalliq Region:

Flight	\$1800
Hotel	\$400
Meals	\$200
Helicopter	\$10,000
Lab Samples	\$6,000
Misc (equip, gear)	\$1600

Total for one round of sampling: \$20,000



Potential for Continuous Monitoring

Automated water quality sensors would:

- reduce the costs of data collection.
- increase the amount of data collected.
- load information directly to a database.
- allow near real-time flagging of abrupt changes.
- tie the results of chemical analyses together.
- allow maintenance/operation to be shared with other agencies.
- possibly provide seasonal water quality information. (i.e. under ice)



Questions?





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Thank you



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