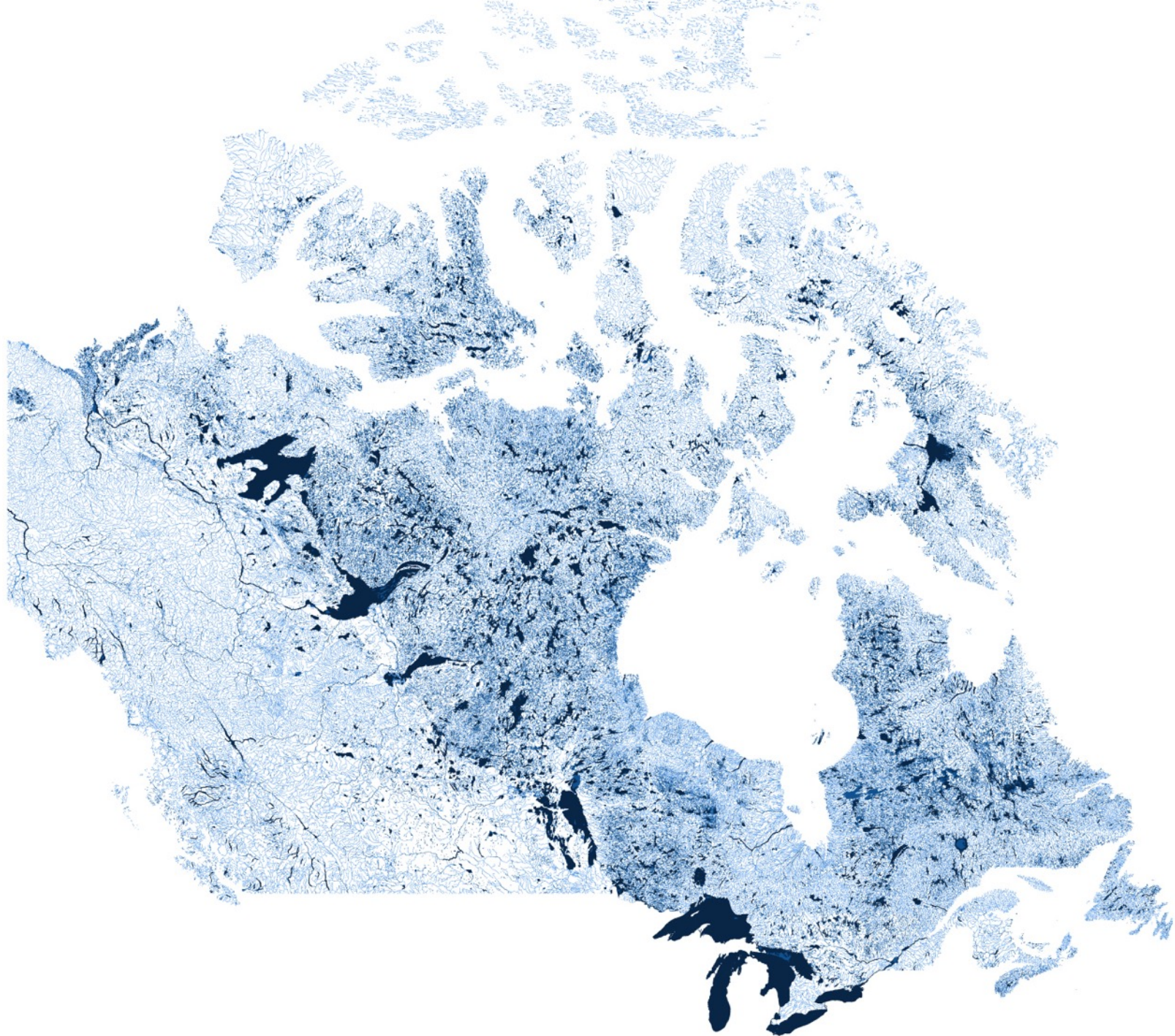


Data Stream



**THE GORDON
FOUNDATION**

Carolyn DuBois
Director, Water Program
The Gordon Foundation

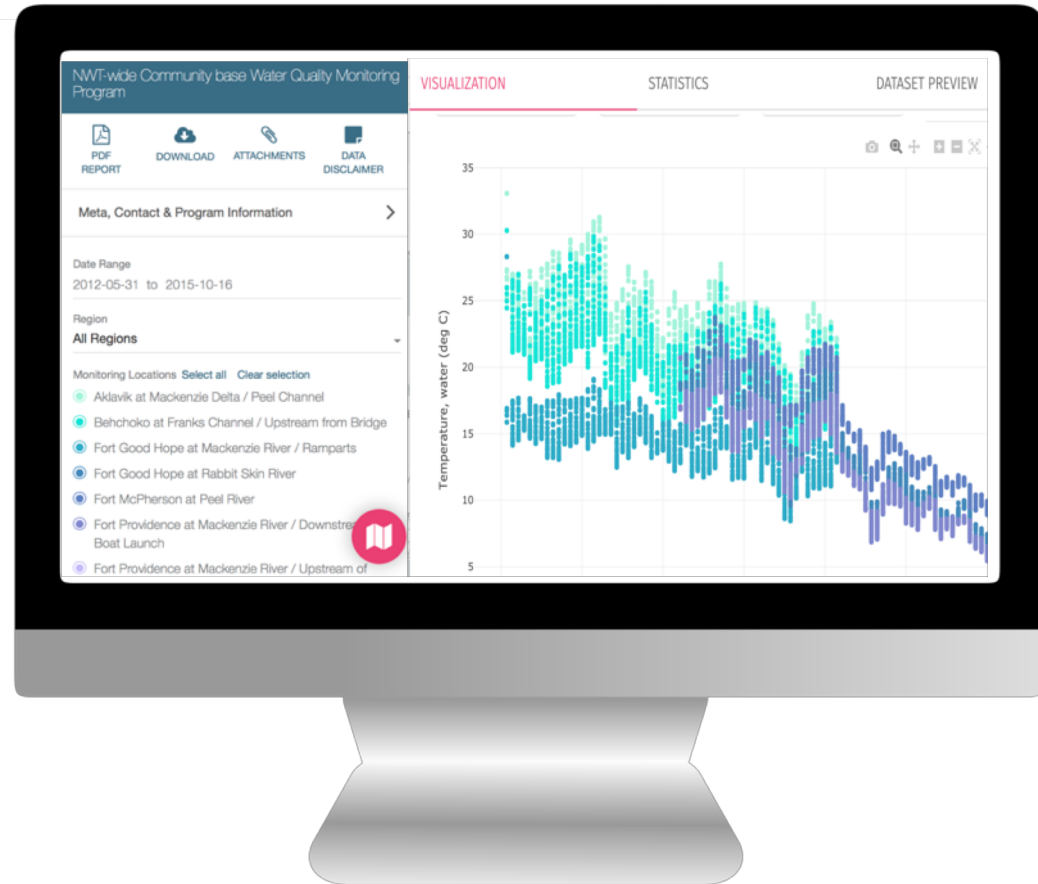


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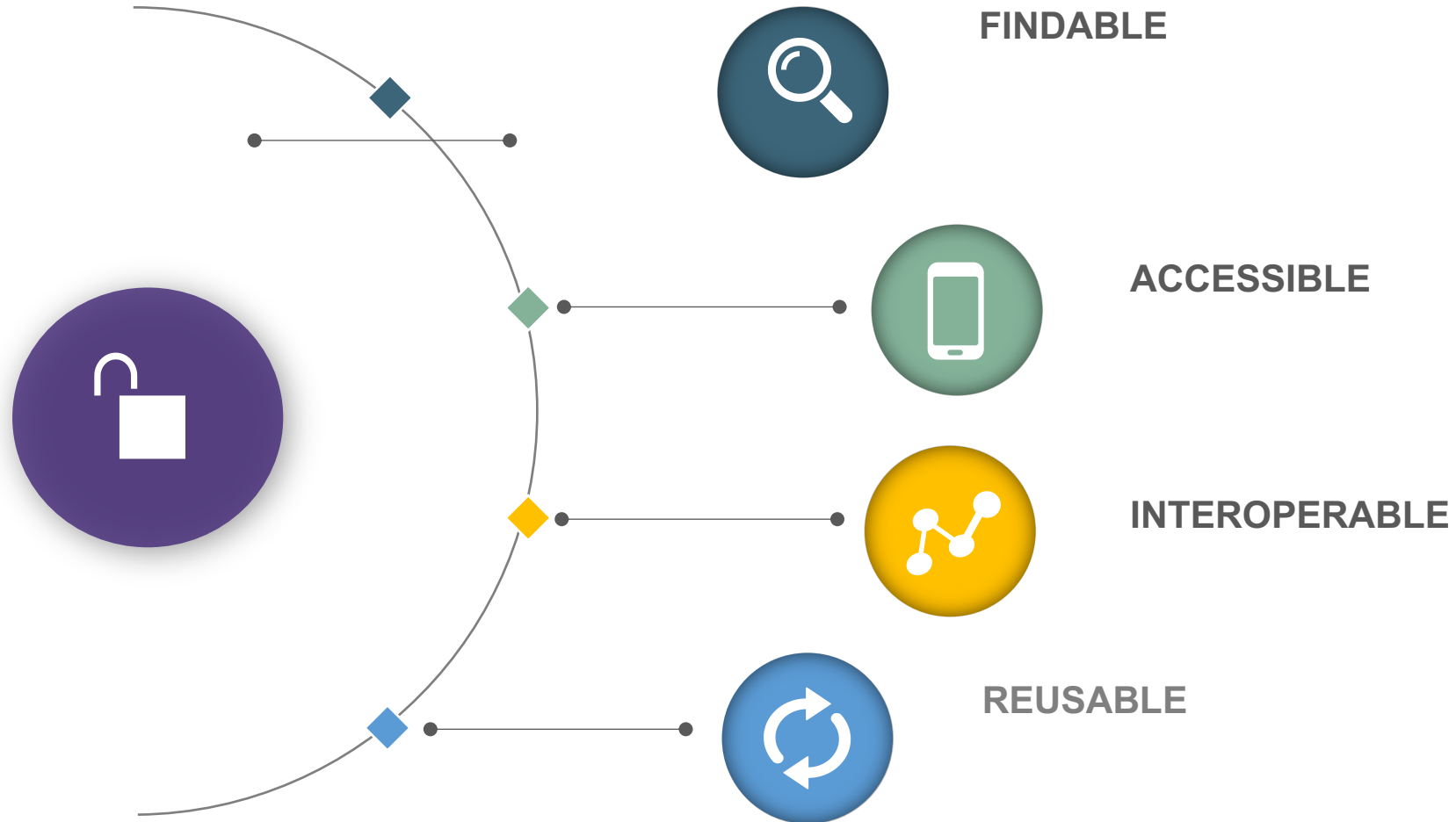


Mackenzie DataStream

- Open access site for water quality data
- User friendly
- Visualization tools
- Easy text and map searches
- Puts groups and data on the map!



'FAIR' Principles of Open Data

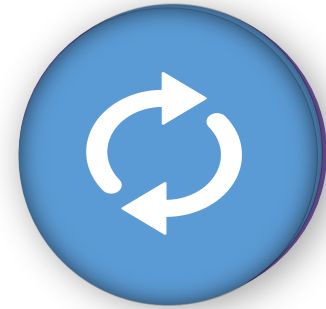




Findable

- DOIs (coming soon)
- Google Datasets





Reusability

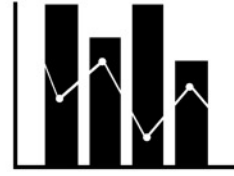
- USEPA- WQX Standard
- Clear Licensing (ODC-By and ODC PDDL)
- Blockchain verification system

Blockchain and DataStream

Verification of data authenticity



2



#aBc123dEF456gH7

When a dataset is uploaded to DataStream, a unique data hash is created. This hash reflects the exact contents of the data file in an encrypted form.



3

The data hash is submitted and written into the Ethereum Blockchain. The decentralized nature of the blockchain network means this record is permanent, traceable, transparent and secure.



4



DataStream users can verify that they are accessing the authentic (unaltered) version of the data through a built-in user interface, or independently verify the record on the Ethereum Blockchain network themselves.

DataStream



Positioning

- Independent
- Neutral: Neither a data producer or data user (or the data police!)
- Not in competition with our users
- Well-positioned for cross-sectoral relationship building
- Program NOT a project
- Sustainable funds from the Foundation but do rely on external funding to grow



Regional Partnership Model

DataStream is led nationally by The Gordon Foundation and delivered in collaboration with regional partners

- Government of Northwest Territories
- Atlantic Water Network
- Lake Winnipeg Foundation

Mackenzie DataStream
(Nov 2016)

Atlantic DataStream
(June 2018)

Lake Winnipeg DataStream
(March 2019)



DataStream



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Future outlook: Thoughts, Challenges & Opportunities

- Becoming part of data holders' business practices
- Reducing work between data collection and upload
- User expectations: finding balance between user facing and backend infrastructure needs (including work to progress in delivering FAIR access to data)- Core Trust Seal?
- Connections with end users of DataStream data.

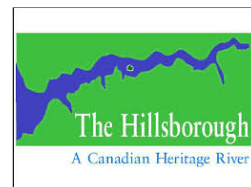
Regional Partners



Supporters/Contributors



Environment and
Climate Change Canada



Thank you



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Director, Water Program
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@DataStreamH2O

Data-Policy Cycle

Where DataStream fits in



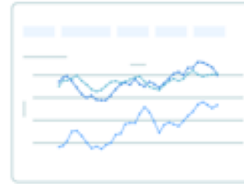
Community

Communities are connected to their waters and best-placed to see changes as they happen.



Policy & Action

Knowledge can be translated into action to protect the health of watersheds on which we all depend.



DataStream

DataStream provides a place to store, share, and compare water monitoring data across watersheds.



Open Data To Knowledge

Open data advances scientific knowledge, supports collaboration, and fuels innovation.