

DataStream's open data platform for sharing water quality data

Mary Kruk¹, Carolyn DuBois¹, Patrick LeClair¹, and Lindsay Day¹

¹The Gordon Foundation

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Abstract

Significant investments are made in the collection of water quality data. Yet barriers to effective data sharing and reuse hamper the ability to leverage this information to its full potential in research and water management decisions. Because water monitoring data are collected by a wide range of organizations, through programs of varying scope and focus, and often within jurisdictional or institutional silos, it can be difficult to connect this information together in standardized and accessible formats. DataStream is an online open-access platform that was developed by The Gordon Foundation and its partners to address the challenge of water data accessibility in Canada. DataStream is free to use and allows users to query, visualize, and download water quality data aligned with widely-adopted data and metadata standards (e.g., Water Quality eXchange, ISO19115 and schema.org). The path towards DataStream evolving as a collaborative and open data platform has been guided by the FAIR and CARE data principles. To date, over 140 different groups across Canada are using DataStream to publish water monitoring results including watershed groups, Indigenous organizations, researchers and governments at all levels. We will highlight our lessons learned in developing the platform to align with FAIR data principles and the elements we believe have been key to our success including DataStream's open data schema, clear data licensing and regional partnership model.

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ABSTRACT (2000 character limit)

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