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## **Bring the noise: Piecing together a discharge record from an automated salt dilution gauging setup and various other information sources**

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Streamflow measurement and prediction are important for proper water resources management. In this case, the water resources problem is drought in the Coastal Mountains of British Columbia, Canada, where a village is drawing drinking water from a mountain stream. Because of challenges with other flow measurement methods in steep turbulent streams, salt dilution gauging is the best way to measure streamflow, but it is labour intensive.

To advance progress towards the singularity, an intelligent automated salt dilution gauging system was deployed, and provides good results, but some disturbances occur due to the presence of a tributary and a drinking water intake. We show how this noise can be turned into signals and discuss a range of other signals that together provide input for the discharge record.