



# WATER RESOURCE DATA

Your Data: Accessible and Assured

WaterResourceData.com provides secure web-based access to your surface water, groundwater, water quality, and climate datasets, professionally managed by Hatfield water resource specialists.

Aligned with Water Survey of Canada processes and systems



Alerts and notifications



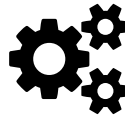
Securely managed



Inter-company data sharing



Online data analytics, visualization and analysis



Facilitates compliance reporting



Linked to your telemetry systems



Integrated GIS web mapping system



CURRENTLY MANAGED:

Stations: **OVER 150**

Data Series: **OVER 600**

Data Series Duration: **1-20 YEARS**

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**Hatfield**  
CONSULTANTS



# HOW IT WORKS



## Surface water, groundwater, water quality, and climate datasets professionally managed by Hatfield water resource specialists

Hatfield water resource specialists have the experience and expertise to conduct integrated field programs with data analytics. We can conduct hydrology, groundwater, water quality, and climate field programs for you, do regular analysis and QA/QC on all data gathered and provide information directed at your needs.

Through WaterResourceData.com, all your datasets can be plotted, downloaded, and managed, including: surface water, groundwater, water quality, and meteorologic time series.

## Aligned with Water Survey of Canada (WSC) processes and systems



Hatfield Hydrologists follow standards set by Water Survey of Canada (WSC) for data collection and analysis. Audits conducted by the WSC and Alberta Environment and Sustainable Resource Development (AESRD) ensure high standards, continual QA/QC, and continual improvement of data quality. Hatfield uses the same software as the WSC (Aquatic Informatics' Aquarius) to store and analyze all hydrometric, water quality, and meteorologic data sets.

## Online data analytics, visualization and analysis

WaterResourceData.com provides the flexibility to provide data analytics, visualization and customizable analysis on near-real-time data.

- Stage-discharge relationships are developed by our hydrologists and provide provisional discharge where near-real-time water levels are available.
- Integrated analysis options such as runoff calculations from specified areas or water balance computation using near-real-time available data can be developed.
- WaterResourceData.com provides users with visual and text identification of the ongoing QA/QC process conducted by Hatfield water resource specialists, with data flagging to provide data users with information to make informed decisions.



## Linked to your telemetry systems

WaterResourceData.com can receive and integrate near-real-time data from a wide number of telemetry sources through Cellular, Satellite, Web Client, or manual uploads. Our staff have the experience to integrate your data to our secure database and provide the support to help this process.

Current telemetry options are as follows but can be expanded to include your datalogger network:

- GOES
- Iridium
- Direct IP connection
- Optimum Instruments Network
- Your uploaded manual-measurement (e.g., data collected offline by field-crews)



## Securely managed

All systems and datasets are securely stored in our Canadian data center, with hourly offsite backups. Our data center is CSAE3416, SSAE16 & PCI/DSS certified and has system- and network-level intrusion detection systems.

Access to your data is strongly controlled, with granular access levels.



## Alerts and notifications

Customizable near-real-time alerts and notifications sent to email, smart phones, or pager alerts. Alerts can be set to provide information on:

- station function
- when incoming data has reached a specified criteria or threshold; and/or
- customizable data analytics specified by you (e.g. critical limits or compliance monitoring criteria).



## Inter-company data sharing

WaterResourceData.com provides a multi-user interface. This allows for efficient data sharing between clients, other companies, and regulators. All datasets are held in a strongly controlled environment with granular access levels, allowing only specified datasets to be shared.

Hatfield has extensive experience facilitating data sharing in large, complex inter-agency projects, and in setting up of automatic data transmission systems that use international standards (such as OGC's SOS and WaterML standards).



## Facilitating compliance reporting

WaterResourceData.com can provide near-real-time compliance monitoring support by comparing metrics, (e.g. total suspended solids (TSS)), from multiple stations and trigger notifications in near-real-time if exceedances are measured.



## Integrated GIS web mapping system

WaterResourceData.com includes a GIS web-mapping system that shows the spatial context of your data. We use the enterprise edition of ESRI's ArcGIS Server, which allows integration with Hatfield's LandMonitoring.com service, your GIS datasets, and purchased satellite imagery.

Advantages of our GIS mapping system includes:

- Not just Google Maps
- Provides access to custom geospatial layers and tools, allowing for the context of your data to be better understood
- Provides integrated visualization of map polygon, point and raster datasets – including satellite imagery
- Custom spatial analysis tools, including automated watershed delineation and stream-slope calculations based on DEM data

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## WHY HATFIELD CONSULTANTS?

Established in 1974 and based in Vancouver, Canada, Hatfield Consultants has built a worldwide reputation in environmental services with over 2,500 projects in Canada, Asia, Africa, South America, and Europe. With company offices in Canada, Indonesia, Laos and Botswana, as well as business partners in Chile and Thailand, we are well positioned to respond to your individual project needs and requirements – wherever you are.

*We help you apply best environmental practices and contribute to a sustainable future.*