

ISLAND COUNTY HYDROGEOLOGY DATABASE HISTORY

- Early 2000s IC Hydrogeologist (Doug K.) begins collecting data to build the Island County Hydrogeology Database
 - Built in Microsoft Access running in 32-bit Microsoft Windows
 - Original design to support Island County staff
 - Public interface added through combination of pdf outputs in Access and python scripts for displays in ArcGIS Online.
- Spring 2020 Doug Retires (database updates/ expansion paused)
 - Automatic updates from DOH Sentry database no longer functional.
 - No staff available to continue manual updates from Ecology Well Report Viewer.
- May 2020 Microsoft Windows (and programs) no longer available in 32-bit versions
 - 64-bit Microsoft Access does not support old access database macros and user interface features developed in 32-bit Access (database only functional to store data tables).
- **February 2023** New Island County Hydrogeologist (Chris K.) starts
- Spring 2023 Updated Island County Well Layer In ICGeoMap with wells drilled between January 2020 and March 2023, updates continue as new data is available from Ecology. Removed links to old database and outdated symbology.
- **Summer 2023** New data tables combine old database water quality information with data collected since 2020, data tables to be stored on a SQL server. Also developing new data tables for water level, geology, and other Information.
 - New <u>Island County Hydrogeology Dashboard</u> (html format developed in R) provides public access to data.
 - Updates and Improvements to dashboard continue as staff availability allows.

RECORDS RETENTION REQUIREMENTS

Group A Systems:

- WAC 264-290-480:
 - (I) Records. The purveyor shall keep the following records of operation and water quality analyses:
 - (a) Bacteriological and turbidity analysis results must be kept for five years. Chemical analysis results must be kept for as long as the system Is in operation. Records of source meter readings must be kept for ten years. Other records of operation and analyses required by the department shall be kept for three years...

Group B Systems:

- ICC 8.09.060 (B):
 - 3. Operations and maintenance.
 - a. The owner shall ensure that the following records of operation and water quality analyses are kept on file:
 - I. Records of bacteriological analyses shall be kept for five (5) years.
 - ii. Records of chemical analyses shall be kept for as long as the system is in operation.
 - iii. Records of action taken by the system to correct violations of primary drinking water regulations and copies of public notifications shall be kept for three (3) years after the last action taken with respect to the particular violation Involved.

The Island County Hydrogeology Database does NOT fulfill the records retention requirement for Group A OR Group B Systems.

WHAT ARE THE SOURCES OF DATA?

Data from the State of Washington:

- Well reports (well logs) from Ecology
 - Basic well completion information available as digital tables in .csv format with location to $\frac{1}{4}$ section (have to be manually located in GIS).
 - Geology, water level, and location information only available from .pdf version of submitted well log.
- Water Quality data for Group A and Group B systems submitted to Department of Health (Sentry Database)
 - Currently available as digital tables In .csv format
 - Location data only as system name and source number (no address or GPS data)
 - Includes groundwater samples, mixed water samples from multiple wells, and distribution system samples. ONLY groundwater samples go into Hydrogeology Database

Data in .pdf format has to be manually transcribed into excel (or similar table structure) for upload Into the Island County Hydrogeology Database

ADDITIONAL SOURCES OF DATA?

Island County SWI Monitoring

Water quality and water level information for ~60 wells in Island County (lab reports as .csv)

WAVs (Water Verification Forms)

- Well Log (same as submitted to Ecology in .pdf format)
- Water Quality (Lab Report in .pdf format)

Septic Permits/ Applications

- Well location on parcel (from Site Plan in .pdf format, well location not always shown)
- Help to identify wells not in Ecology's Well Report Viewer

Hydrogeologic Site Evaluations

- Well Log (same as submitted to Ecology In .pdf format)
- Static water levels and surveyed well head elevations (in .pdf report)
- Water Quality (Lab Report in .pdf format)

Other

Private Party submissions of water quality or well data submitted to Island County are reviewed and added to the database when available (typically pdf format)

Data in .pdf format has to be manually transcribed into excel (or similar table structure) for upload Into the Island County Hydrogeology Database

Groundwater Data

