Project: Adobe Creek Climate Adaptation Plan (020-01) and Big Valley Basin Groundwater-Surface Water Monitoring Program (020-06/09)

Client: Big Valley Band of Pomo Indians

# Pressure Transducer Data Processing

* Data will be received from BVR as a “.wsl” file type
* Move “.wsl” files to Y:\Shared\Active\_Projects\A002\_Clear\_Lake\Surface\_Water\Pressure\_Transducers\data-raw\winsitu\_files and create a new folder with download date (which will be in the file name) followed by “\_Download”, for example, for the May 3, 2022 download, the folder was named “2022.05.03\_Download”
* Open the file by right-clicking, and selecting “Open with” > “WinSitu.exe” (or double clicking may work)
  + Data will open in the software and may be displayed in “graph view” or “text view”
  + To open the other files, you may have to close the application and then open the next file
  + Open all four files, including the “Baro” file
  + You can toggle between graph view and text view in the lower left corner
* Next, open Win-Situ Baro Merge software
* Select “Use a Baro TROLL file:”, click the “…” and select your “Baro” file from the most recent data download, click the 
* Click the , wait for data to show up in “compensation table”, this make take a few minutes
* Click the  again
* Select all three of the “.wsl” files, click 
* Three new files will be created, each one with “BaroMerge” appended to the end of the file name, click , and close BaroMerge
* Right click on each BaroMerge file and select “Export to CSV”
* A new “.csv” file will apear under “Exported Data” > Adobe Creek (with an Excel symbol in front)
* Click on the “.csv” file to see where the file was exported to on the hard drive, navigate to that folder and move files to Y:\Shared\Active\_Projects\A002\_Clear\_Lake\Surface\_Water\Pressure\_Transducers\data\unmerged\_downloads and create a new folder with download date (which will be in the file name) followed by “\_BaroMerge\_Data”, for example, for the May 3, 2022 download, the folder was named “2022.05.03\_BaroMerge\_Data”
* Open “SensorData.Rproj” in the “Pressure\_Transducers” folder. Open “update\_transducer\_data.Rmd” within the project window. Run all rmd chunks to update the merged full data sets.

# Adding Data to Flow vs Depth Table

* Open: "Y:\Shared\Active\_Projects\A002\_Clear\_Lake\Surface\_Water\Flow\_vs\_Depth\_Table.xlsx"
* Open flow measurement data, which should be saved here: Y:\Shared\Active\_Projects\A002\_Clear\_Lake\Surface\_Water\Flow\_Measurements\Adobe\_Creek\data-raw in a folder titled with the date the measurements were taken (you can open either the “.tsv” or the “.csv”
* Fill out Column A (Raw\_File\_Name)
* Fill out Column B (Profile\_Name), D (Date), and E (Time) which will all be at the top of the file
* Column C (Site\_Name) will be either “Bell Hill Rd”, “Argonaut Rd”, or “Soda Bay Rd”
* Column J (Flow\_cfs) will be the value under “Total Discharge”
* Column L (Transducer\_Sensor\_Elevation\_ft-NAVD88) is 1402.281 for Bell Hill, 1350.318 for Argonaut, and 1329.229 for Soda Bay (this information can be seen in existing rows)
* Column O (Equipment) should be Hach FH950, and should say “FH950” under Model in the file (4th line)
* Fill out Column P (Staff) with whichever FlowWest staff took the measurement
* Fill out Column Q (Notes) with description of where measurement was taken, or any other pertinent information
* For Column K (Corrected\_Depth), open the most recent “…BaroMerge.csv” that you processed for each site, and, using the date and time in column A (note that time is shown in military time), find the date/time that is closest to the date & time recorded in columns D & E. In the Column K cell, type in “=AVERAGE(“ and enter the depth shown in column E and the two previous depths (separated by commas), followed by a closing “)”. This will take the average of the depths recorded while the flow measurement was taken, assuming it took about 30 minutes to take the measurement
* For Column M, type in “=”, then select the cell in Column K (Corrected\_Depth), then type “+”, then select the cell in Column L (Transducer\_Sensor\_Elevation\_ft-NAVD88), and hit enter. This will give you the Water Surface Elevation in ft-NAVD88

Each site should have two measurements taken. Each measurement can be entered into the Flow\_vs\_Depth\_Table (each in its own row), but if one is obviously incorrect, or one measurement was taken more properly than the other, only keep the best measurement.