

Phase II in-stream sediment measurements in the Talakhaya watershed on Rota, Commonwealth of the Northern Mariana Islands from 2016-03-09 to 2017-05-11

NCEI Submission 8/29/17

Read me file

This folder contains data collected during Phase II (2016-2017) of the Talakhaya stream monitoring effort. Phase I (2013-2014) data was collected by others (the University of Guam) and used as a guide for continued monitoring protocols during Phase II and for final data analysis and project reporting. We have included the compiled Phase I data spreadsheet that we were provided here so that all the data from Talakhaya Stream monitoring is stored in one place. Because we didn't collect Phase I data, however, we do not have raw files or descriptors of the data parameters from Phase I.

Data is organized in to the following folders:

1. **RawData folder (Phase II):** contains original raw data downloaded from rain gauges and pressure transducers/stream level loggers. They are in .csv files that can be opened in excel and .hobo files that can be opened in HOBOWARE software that can be downloaded from the onset website. It includes individual files downloaded from rain gauges and pressure transducers at stream locations.
 - Rain gauge data include the time and date of each rain event and when the tipping bucket tipped ("logged"). A rain event is defined as when 0.01 inches of precipitation has accumulated. Files are labeled as "**date_TKXRG**" with the date being year and month, TK means "Talakhaya," X being the rain gauge's number ID, and RG means "rain gauge." There are 4 rain gauges. Note that the numbers do not correspond to the subwatershed the gauge is located in.
 - Stream level logger data shows the pressure at the bottom of the stream over time. Stream level logger data files are labeled with as "**date_TKX_rY**" where date is year/month that the file was downloaded from the logger. TK means "Talakhaya," X indicates the ID of the stream/subwatershed, and rY indicates the station/reach number within that stream.
 - Atmospheric logger data files contain temperature and barometric pressure data from streams. Atmospheric files are labeled "**date_TKX_A**" where date is year/month that the file was downloaded from the logger. TK means "Talakhaya," X indicates the ID of the stream/subwatershed the atmospheric logger is located in. "A" stands for air.

The raw data files are not available from Phase I.

2. **Compensated or hourly folder (Phase II):** contains data that has been minimally processed to adjust raw output into something that can be used.
 - To generate stream water depth, the stream pressure data was compensated with the pressure and temperature data from the closest atmospheric logger, so that the compensated file show the stream depth in feet over time. These files are named "**date_tkX_rY_comp**" where date is year/month and tk means "Talakhaya," X indicates the ID of the stream/subwatershed, "rY" is the station ID and "comp" means "compensated."

- The rain gauge data was grouped by hour, and files contain these files are labeled time_tkXRG_hourly. The data here is the number of times the bucket tipped that hour.

3. Processed Data folder (Phase I and II): contains cleaned up data that was used for analysis and to create charts and figures in the final reports from both Phase I and Phase II.

- The CompiledStageRainData file shows the hourly rainfall depth and stream height across all study sites during Phase I and II.
- The PhaseI_WaterQualityAndFlow file shows flow, stage readings, stage discharge relationships, and water quality data (temperature, pH, pHmv, ORP, mS/cm, turbidity, DO, and TDS)
- The PhaseII_WaterQuality file contains water quality data (turbidity, temp, pH, salinity, and TSS).

A monitoring station locator map is also included in this data set.