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**Sites:** TB-SW, TB-UW2, and TNC Deep Well

**Overview:**

Due to time and equipment constraints, we could not execute the GHG methods test as we originally planned. The two major problems we encountered were 1) the bailer didn’t fit the well diameter at TB-UW2 and 2) the headspace equilibration proved more time intensive than we expected.

1. Since the bailer did not fit the well diameter at TB-UW2, we sampled a wider TNC well. Due to the large volume of water in the well, we purged the well with a bailer instead of the peristaltic pump. At this site, we took 5 replicates filled from one bailer sample and 5 replicates using the peristaltic pump.
2. Headspace equilibration was much more time consuming than anticipated, so we reduced the number of replicates. We took three replicates in TB-SW standing in the wetland center and three replicates at TB-UW2, which were pumped into a bucket using the peristaltic pump. We also included two ambient air samples.

**Comparisons to Make:**

1. Compare the results of directly filling vials while standing in surface water (SW-D, n = 5) to the results of using the remote sampling bucket (SW-B, n = 3 no bubbles, n = 5 with bubbles), and the results from headspace equilibration (SW, n = 3).
2. Compare the results at TB-UW2 from directly filling a vial with the peristaltic pump (GW-Pump, n = 5) to the results from pumping water into a bucket and conducting headspace equilibration (GW, n = 3) .
3. Compare the results from the TNC well using the bailer (GW-Bail, n = 5) vs. the peristaltic pump (GW-Geo, n =5).