Project Description/Objective: To assess the hydrological and ecological status and sustainability of terminal lakes in the Great Basin. Terminal lakes are lifesaving stopovers for migratory birds, are of great cultural significance to tribal nations, and lead to hazardous air quality as they recede and desiccate.

~3.0 m decline since 2001

The surface-water elevations of all terminal lakes in the GB have declined during the MODIS era.

Great Salt Lake dropped to its lowest recorded level in 2021

~1.8 m decline since 2001
MODIS data products along with ancillary data help us to understand the reasons for the decline in the terminal lakes in the context of the ongoing megadrought.

**Technical challenges/Milestones:**
- USGS to collect water-quality samples of key lakes in the GB, spring/summer/fall 2022 – K. Casey
- R. Larson to collect samples from lakes in Oregon if there is sufficient water in the lakes, in 2022

**Deliverables:**
- Water samples will be sent to L. Jansen for analysis & results used to validate water quality algorithms that are under development (Chla/TSS/a_{cdom(440)}) - N. Pahlevan
- Planned conference presentations: Joint Aquatic Sciences Meeting (JASM), IGS & AGU

**Near-term milestones:**
- Complete trend analysis for the Great Basin and for individual lake basins (#days of snow, LST & ET)
- Start GRACE/GRACE-FO analysis with B. Loomis to study change in water storage in the GB