Water Quality Engineering Research at UCF

PROJECT LOCATIONS:

- California
  - Alameda County Water District

- Florida
  - City of Boynton Beach
  - Town of Dundee
  - City of Oviedo
  - City of Palmetto
  - City of Sarasota
  - City of Winter Springs
  - Jupiter Water Utilities
  - Orange County Utilities
  - Polk County Utilities
  - Sarasota County Utilities

- Georgia
  - Butts County Water & Sewerage Authority

- Hawaiian Islands
  - County of Maui Water Supply (Maui)
  - Pulama Lanai Water (Lanai)
  - Waiahi Water Facility (Kauai)

- Marianas Islands - Guam (U.S. Navy)

- Cayman Islands (Water Research Foundation)

- National Science Foundation (Mosaic sinkhole, FL)

Summary: Dr. Duranceau’s research focuses water quality engineering related to the supply, treatment, storage and distribution of potable (drinking) water and its’ infrastructure, with specialized expertise in coastal and island water locations. His applied water treatment operations studies fill an emerging need demanded in today’s increasingly complex municipal infrastructure climate that requires economic, social (health) and environmental multidisciplinary approaches necessary to provide solutions to a number of challenging problems.
Water Quality Engineering Research Supporting Applied Engineering Education

- The water quality engineering research laboratories focus on providing assistance to outside communities with respect to water quality and treatment, storage and distribution system infrastructure. Much of the research is accomplished in central Florida and its coasts including island communities.

- Graduate students are fully supported as Graduate Research Assistants (GRAs) who are assigned to a municipal water purveyor for both on-the-job and academic research training. Over 80% of the research conducted in our research group is off-campus (Florida, Georgia, California, Hawaiian Islands, Marianas Islands, Cayman Islands).

- Undergraduate (UG) students participate in UCF's Water Quality Engineering Research laboratories in three general types of activities:
  ◦ Field Activities: UG students are trained to collect, analyze and report analytically-valid field measurements for reporting purposes.
  ◦ Laboratory Activities: UG students are trained in the proper procedures and protocols in sampling and analyzing water quality in the laboratory.