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<b>Institution:</b> University of South Florida	<b>Agency:</b> National Science Foundation

## **Facilities, Equipment, and Other Resources**

Facilities, equipment and resources are available from the University of South Florida (USF) in the research institute directed by Co-PI Landry, the Water Institute in the School of Geosciences.

### **Water Institute (WI), School of Geosciences**

The Water Institute is a USF research institute affiliated with the USF College of Arts and Sciences, School of Geosciences. Dr. Shawn Landry and five professional staff joined the Water Institute in 2014 after more than a decade leading the Florida Center for Community Design and Research at USF. The Water Institute provides innovative and sustainable solutions to complex water-related problems ([waterinstitute.usf.edu](http://waterinstitute.usf.edu)). As part of his assignment in his home department, Geosciences, Landry is also very engaged in urban forest research.

Office facilities of the Water Institute are equipped with standard desktop computing, internet, telephone, printing, and other office resources. The WI has an 8-desk student office space equipped with computing resources and software that is available for use by the graduate students of this project. Conference room facilities to accommodate meetings of the project team are also available for use by the project. The WI has the hardware and software resources needed for the development and management of the proposed data management portal and tools. The geospatial analytical software application ESRI ArcGIS and remote sensing application ENVI are available to all project staff through site licensing agreements at USF. Licenses for additional geospatial (e.g., GWR, GeoDa), remote sensing (e.g. Erdas IMAGINE, Trimble eCognition) and LiDAR (e.g., Quick Terrain Modeler) software tools are available to the staff of the WI. Computing resources available at the WI include high-availability online GIS, spatial database and web application infrastructure, high-powered 64-bit workstations designed for GIS and remote sensing data processing, and professional information technology staff trained to manage these infrastructures.

File server and web server technology are used to support projects such as [WaterAtlas.org](http://WaterAtlas.org), [Water-CAT.org](http://Water-CAT.org), [PlantAtlas.org](http://PlantAtlas.org), [tampatreemap.org](http://tampatreemap.org), and others. All servers that will support the data management plan are housed in a virtual server farm managed by the USF Information Technology department. Virtual servers are supported by nightly backups to an off-site facility, a diesel generator to ensure continuous power, multiple T3 and other internet connections, and a trained staff who manage these resources. The server farm was tested during the 2004 Florida hurricane season when the [WaterAtlas.org](http://WaterAtlas.org) remained online to provide local emergency management agencies with access to near-realtime hydrologic and meteorological sensor data.

The Water Institute also owns a Ford F150 vehicle that is available for travel to field locations, if needed.