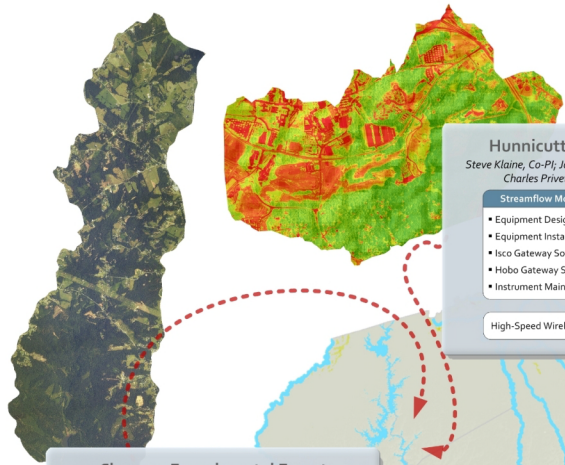


Intelligent River™

...Linking Water Resources, Land Use, Energy and Climate Change

Gene Eidson, Principal Investigator



Hunnicutt/CLUE

Steve Klaine, Co-PI; John Hayes, Co-PI; Charles Privette, Co-PI

- Streamflow Monitoring
 - Equipment Design
 - Equipment Installation
 - Isco Gateway Software
 - Hobo Gateway Software
 - Instrument Maintenance
- High-Speed Wireless System

Catawba River

Gene Eidson, Program Manager

- Catawba River
 - York County
 - Cultural & Heritage Museums - Museum of York County

Instrumentation Development

Jason Hallstrom, Co-PI; Christopher Post, Co-PI

- Data Acquisition Device
 - Version 1 (GIS Lab)
 - Version 2 (GIS Lab)
 - Motestack
 - Low Voltage Disconnect
- Instrument Design
 - Dendrometer Design
 - Issaqueena Lake Outflow
 - RDA Buoy
 - Inorganic Carbon Sensor Pack
 - Temp Profile Buoy
 - Piezometer
 - Well-Rain
- General Design
 - Cellular Implementation
 - Battery Power Analysis
 - Antenna Testing/Design
 - Monitoring Enclosure
 - RDA Base Station
- Test Environment
 - Motestack Campus
 - Data Acquisition GIS Lab

Bannockburn Plantation/PISCES

Dan Hitchcock, Co-PI; William Conner, Co-PI

- Well / Sub-Canopy Rainfall
 - Instrument Design
 - Phase 1 Installation
 - Phase 2 Installation
 - Soil Samples
 - Instrument Maintenance
- Stream Monitoring
 - Culvert Flow/Sonde Design
 - Installation
 - Instrument Maintenance
 - Remote Data Acquisition
- Multi-Level Piezometer
 - Instrument Design
 - Phase 1 Installation
 - Phase 2 Installation
 - Soil Samples
 - Instrument Maintenance
- Base Station/Connectivity
 - Installation
 - Instrument Maintenance
- Stream Flow
 - Parshall Flume Design
 - Installation
 - Instrument Maintenance*
 - Remote Data Acquisition
- RDA Dendrometer
 - Instrument Design
 - Installation
 - Instrument Maintenance
- Weather Observing
 - Weather Station Installation
 - Tipping Bucket Installation
 - Instrument Maintenance
- System Documentation
- Conventional Dendrometer
- Inorganic Carbon Sensor
 - Instrument Design
 - Installation
 - Instrument Maintenance

Clemson Experimental Forest

Christopher Post, Co-PI; K.C. Wang, Co-PI

- High Speed Wireless
 - Equipment Testing/Line of Sight Analysis
 - Radio Equipment Installation
 - Antenna Mast Installation
 - Power Installation
 - Equipment Maintenance
- Issaqueena Monitoring
 - Issaqueena Lake Outflow Device
 - Base Station Installation
 - Dendrometer Design
 - Dendrometer Installation
 - Dendrometer Maintenance
 - Issaqueena Inflow Aqardor
 - Issaqueena Outflow Survey
 - Temp Profile Buoy

Outreach

Gene Eidson, Program Manager
Cal Sawyer, Co-PI

- Public Outreach
 - Carolina Clear
 - Collaborative Watershed Programming
 - IntelligentRiver Website
 - Southeastern Natural Sciences Academy
 - Cultural & Heritage Museums - Museum of York County
 - Upstate Forever
 - City of Bluffton

Cyberinfrastructure

Jill Gemmill, Program Manager; David White, Co-PI; Tim Howard, Co-PI; Sam Esswein, Co-PI

- Management
 - Project Management
- Web Applications
 - THREDDS Installation
 - Platform Monitor
 - Google Maps Display
 - Surface Runoff Animation
- Web Content
 - Site Content
 - Site Development
 - Site Design
- Messaging
 - Core Software Design/Development
 - Benchmark Utilities
 - Broker Agent
 - Xbee Gateway
 - Motestack Gateway
 - Hobo Gateway
 - Campbell Gateway
 - Isco Gateway
- Archivers
 - CSV Archiver
 - THREDDS Archiver
 - Xenia Archiver
- Visualization
 - Savannah River Visualization Tool
 - TR-55 Surface Runoff Model
 - Sensor Dashboard
- QA/QC
 - QA/QC Level 1/2
 - QA/QC Analysis
 - QA/QC Graphical Interface
- Administration/Metadata
 - Software Management/Maintenance
 - Metadata Management Tool
 - Metadata Search Tool

Program Operations

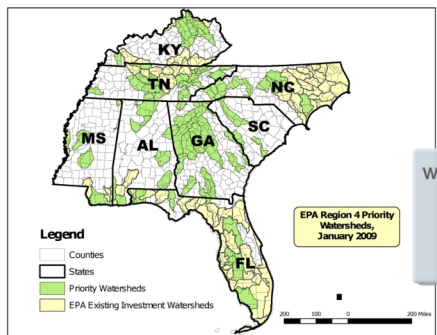
Gene Eidson, Program Manager

- Operational Tasks
 - Deployment, Site, & Telemetry Engineering
 - Instrumentation Engineering & Maintenance
 - Systems Engineering
 - Data Manager
 - Quality Assurance/Quality Control

Savannah River

Oscar Flite, Co-PI; Sam Esswein, Research Associate

- River Monitoring
 - Existing River Monitoring
 - Site #1 Phinzy Swamp
 - Site #2 Golf Course
 - Site #3
 - Site #4
 - Site #5
 - Mobile Site
 - Instrument Maintenance
- Buoy Development
 - RDA Buoy Design
 - Campbell Gateway
 - Battery Analysis
 - RDA Buoy Base Station
 - Instrument Maintenance
- Google Maps Display (Public Weather Obs Access)
- Savannah River Visualization Application



Watershed Management

- EPA Watershed Management
 - Region 4-EPA Network of Centers of Excellence for Watershed Management

Sustainable Agriculture

- Research & Development
 - Precision Agriculture
 - Nutrient Abatement/Removal

Renewable Energy

Gene Eidson, Program Manager

- Research & Development
 - Offshore Wind Turbine
 - Biofuel



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CLEMSON UNIVERSITY

Clemson University
Restoration Institute

ccit
Clemson Center for Information Technology

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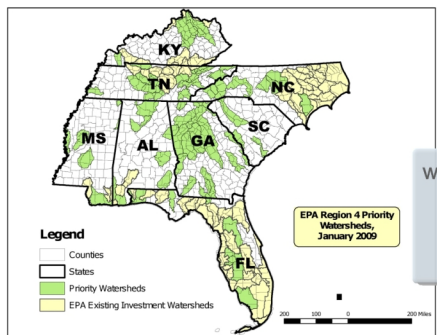
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