

# PWSU-CIWG Research Need Update

October 7, 2011  
Orlando, FL

# Temperature

- **Utility Needs:** Daily and Monthly Max, Seasonal Change
  - How seasonal temp. forecast impact irrigation demand
  - Cooling demand changes
- **Available tools:** NOAA forecast, SECC, AgroClimate.com
- **Current Research:**
  - COAPS/USGS-La Florida & COAPS/ORAU Projects
  - Drought Index/irrigation forecast using CPC 3-month outlook
- **Research Needs:** Urban ET Estimate with temp. Impact, EDA on temp vs. demand across different sector

# Rainfall Impact

- Utility Needs:
  - Long-term rainfall forecasts, 10, 20, 50 years
  - Long-term change in pattern in Florida
  - Change in length of wet and dry season
- Available tools: Global Climate models, AR4 etc.
- Current Research:
  - Downscaled GFS and CFS forecasts
- Research Needs:
  - Demand vs. rainfall, r/p between rainfall and temperature for demand forecast
  - Changes in hydroperiod, & development of indicators

# Storms/Hurricanes

- Utility Needs:
  - Model inundation damage/storm surge impacts
  - Storm/inundation impact on salt water intrusion
  - Hurricane track with 10 -15 days lead time
- Available tools: couple surface/groundwater models.
- Current Research:
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- Research Needs:
  - Coupled surge/surface/ground water to better predict surge impact on SWI