

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:
 - □
- Research Needs:
 - Coupled surge/surface/ground water to better predict surge impact on SWI