

- Systematic stream and spring flow and water quality and groundwater level monitoring tailored specifically to characterize changes in base flow that can be attributed to withdrawals.
- Baseline and recurring synoptic surveys of floodplain and spring run vegetation, instream submerged aquatic vegetation, fish, and other aquatic biota of interest.
- Subregional modeling of the USR at a more discrete scale than the NFSEG model and sensitivity analysis of groundwater withdrawals, particularly in Hamilton County and within the phosphate mining area.
- Regional and subregional ground- and surface-water modeling that considers the influence of changing hydrometeorological variables such as rainfall, temperature and ET on aquifer recharge (Kumar, 2012) and phosphate mine reclamation alternatives.
- Floodplain vegetation mapping and association with hydrology similar to the investigation of the lower Suwannee River (Light, Darst, Lewis, & Howell, 2002).

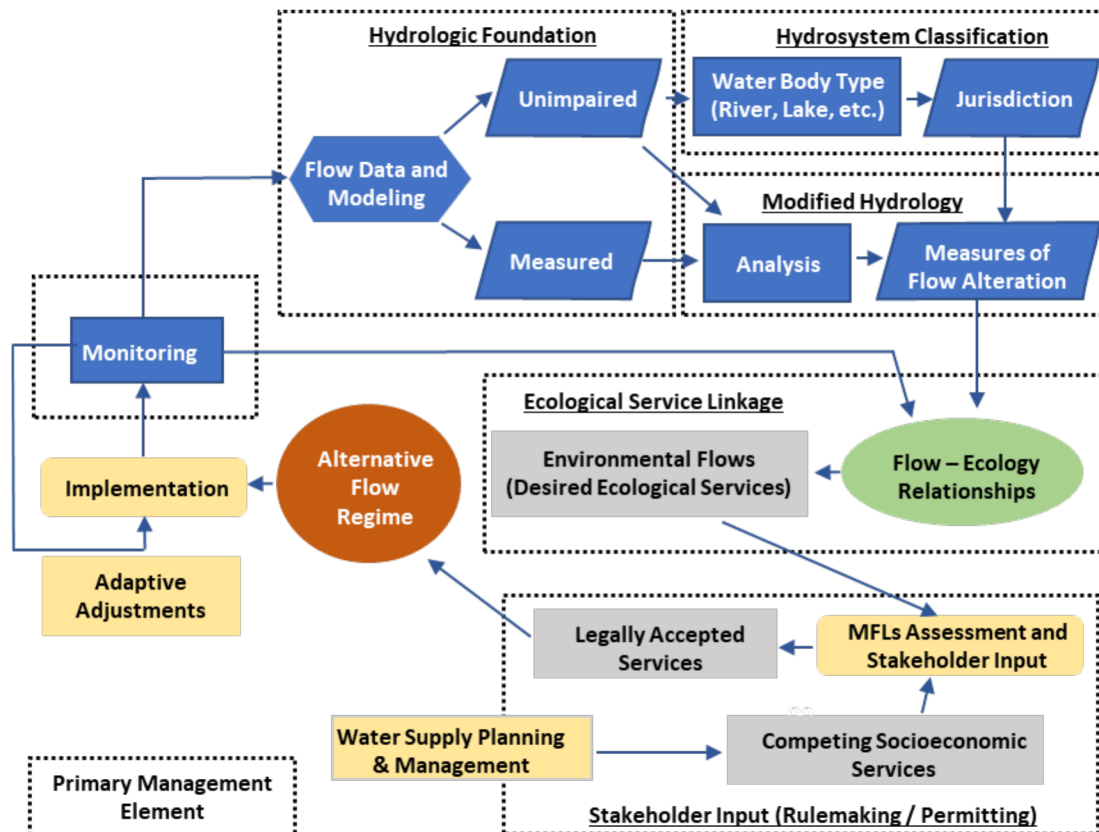


Figure 60. Conceptual holistic framework for the Upper Suwannee River adaptive management [Modified from (Williams & Brown, 2014)]