



The St. Johns River Water Supply Impact Study



St. Johns River Water Management District

Planning for Florida's future water needs



Water sources

- Fresh groundwater
- Brackish groundwater
- Reclaimed water
- Seawater
- Surface water from rivers and waterways

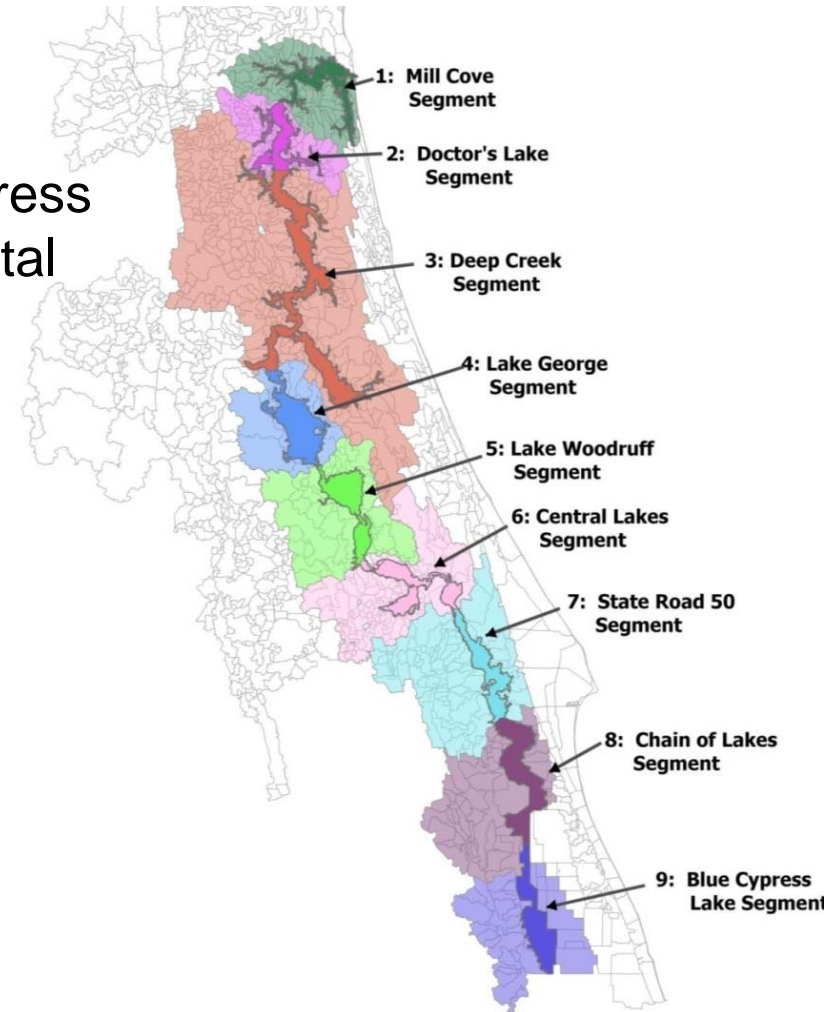
The St. Johns River Water Supply Impact Study

- A comprehensive and scientifically rigorous analysis of the potential environmental effects of future water withdrawals on the biological and water resources of the St. Johns River
- 70+ scientists and engineers, many with international standing, contributed to this world-class analysis
- Peer reviewed by the nation's premier scientific organization, the National Academy of Sciences



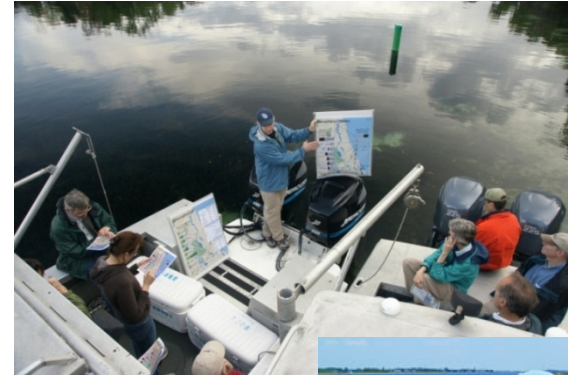
WSIS study areas

- Two phases of work
- Work groups were organized to address the diversity of potential environmental effects:
 - Hydrology and hydrodynamics
 - Biogeochemistry
 - Plankton
 - Benthic macroinvertebrates
 - Littoral zone vegetation
 - Fish
 - Wetlands and floodplain wildlife
- Encompassed the complete riverine ecosystem of the St. Johns River



State-of-the-art modeling and environmental analysis

- The study included assessments of:
 - Salinity
 - Nutrients
 - Turbidity
 - Flow and velocity effects
 - Sea level rise
 - Residence time and water age
 - Entrainment and impingement
 - Increases in water volume caused by District restoration projects and land use changes
 - The unique characteristics of each the river's basins
- Examined 15 withdrawal scenarios in eight river segments
- Analyzed more than 3,360 conditions



NRC report highlights

- “The overall strategy of the study and the way it was implemented were appropriate and adequate to address the goals that the District established for the WSIS.”
- “The Committee found the work of the hydrology and hydrodynamics (H&H) work group ... to be state-of-the-art science.”
- “The wetlands work group produced a solid analysis of potential impacts of water withdrawals to the St. Johns River.”
- “The conclusions of the SAV work group regarding impacts of lowering water levels upstream and increasing salinity levels downstream on SAV are well thought-out and arise from careful data analysis.”



The final product

- Is an advanced body of science and engineering knowledge about the St. Johns River
- Will provide science-based, peer-reviewed guidance on withdrawal volumes
- Does not set absolutes
- Does not authorize water withdrawals
- Will be used to guide District permit evaluations, planning and policy
- Provides a world-class tool and peer-reviewed methods to guide decision making

Thank you

For additional information, visit floridaswater.com.

