



Annual Assessment of Florida's Water Resources and Conservation Lands

2019 Edition

Executive Summary

The full report is available at:

http://edr.state.fl.us/Content/natural-resources/LandandWaterAnnualAssessment_2019Edition.pdf.

Executive Summary

The Office of Economic and Demographic Research (EDR) has completed the third annual assessment of Florida’s water resources and conservation lands pursuant to section 403.928, Florida Statutes. Due to the magnitude of the assessment and the fundamental intent of EDR to produce accurate and methodologically sound results, the 2019 Edition of this report is still an intermediate step to full compliance with section 403.928, Florida Statutes. However, this edition makes substantial progress over the previous edition and may allow some components of the timeline to be advanced.¹

Lands can be acquired for conservation by public or private entities and can be obtained in fee or less-than-fee simple ownership.² Once acquired, the lands are typically managed to maintain their conservation purposes. As such, expenditures on conservation lands can be categorized into acquisition expenditures and management expenditures. In Fiscal Year 2017-18, the State of Florida expended \$72.6 million on conservation land acquisition³ and \$205.4 million on conservation land management.⁴ Regarding the impact on ad valorem taxation, roughly 2.91 percent of the statewide county tax base and 2.59 percent of the statewide school tax base have been removed from the tax roll. As a result, on net, approximately \$419 million in county taxes and \$314 million in school taxes were shifted to other property owners or lost due to lands being held in conservation in 2018.⁵

Approximately 30 percent of all land in the State of Florida is currently managed for conservation purposes, with eight counties already over 50 percent.⁶ If all lands identified in plans set forth by state agencies and water management districts are acquired, this share will jump to nearly 44 percent.⁷ If federal, local, and private plans were accounted for, this share would be even greater. Summing the projected total acquisition costs for the additional conservation lands identified in the plans developed by the state and water management districts produces a preliminary cost estimate of just under \$12.3 billion, of which the analysis suggests that nearly 75 percent would be a state responsibility. At the current rate of annual state conservation land acquisition expenditures, it would take about 172 years to generate the state’s share; within the next five years, less than three percent of the total state cost would be generated. Any future conservation lands that are acquired will entail additional costs for management as well as the acquisition cost. Currently, a dedicated revenue source for managing the state’s lands does not exist. Assuming the current level of expenditures per acre, the additional cost to the state to manage its potential land acquisitions is projected to be \$128.4 million, annually.

¹ See section titled “1. Introduction and Purpose” for an expected timeline of future analyses.

² See subsection titled “Costs of Acquisition and Maintenance under Fee and Less-than-fee Simple Ownership” for further details on ownership types.

³ See Tables 2.2.3, 2.2.4, and 2.2.5.

⁴ See Table 2.2.6.

⁵ See Table 2.1.2.

⁶ See Tables 2.1.2 (Part 3) and 2.1.4 (Part 3). The eight counties are: Broward, Collier, Miami-Dade, Monroe, Okaloosa, Franklin, Liberty, and Wakulla.

⁷ See Table 2.3.6. This projection does not include any additions to current federal, local, or private conservation lands.

With just under one-third of the land in the State of Florida already acquired for conservation purposes and approaching one-half after accounting for potential conservation land acquisition in the future, significant policy questions arise. For example, how much conservation land is needed and for what purpose? Where should it be located? Should the current pace of the state's conservation land acquisition efforts be accelerated? At what point does the volume of conservation land acreage alter the pattern of economic growth as expanding metropolitan areas are forced upward instead of outward? Is this change acceptable to policy makers? Should there be a greater focus on selling non-essential conservation lands as surplus? Is primarily owning conservation land in fee simple the most efficient strategy for Florida? Would encouraging less-than-fee simple ownership help to alleviate economic concerns associated with government ownership of conservation land? Are adequate funds available for managing current and future acquisitions? It is EDR's objective that this ongoing report will assist policy makers in developing the answers to these types of questions.

Regarding water resources, according to the water management districts, water demand is projected to increase by 17 percent in the next 20 years and reach 7,515.9 millions of gallons daily by 2035 (assuming average annual rainfall and not accounting for potential new water conservation activities). The two largest drivers of water demand are and will continue to be population growth and agriculture. The projected water demand may grow even higher if drought conditions occur, with 1-in-10 year droughts potentially increasing demand by an additional 24 percent over the same 20-year period. On the other hand, the increases in demand can be partially offset if effective water conservation strategies are implemented. According to the districts' regional water supply plans and water supply assessments, the water needs of the state can be met through the 2035 planning horizon with a combination of traditional and alternative water sources, appropriate management, conservation, and implementation of the projects identified in the applicable regional water supply plans. Because no district can meet its future demand solely with existing source capacity,⁸ these extra efforts (and the funding for them) are critical over the period from now through 2035.

The costs associated with ensuring that future water supplies are available to meet the increasing water demands are estimated to be between \$1.6 and \$2.2 billion over the 2015 through 2035 planning horizon⁹. This estimate is based on an analysis of projects identified by water management districts through the water supply planning process and may change significantly in the future as the methodologies, both of EDR and the water management districts, are refined. This cost estimate only captures water conservation initiatives and the costs of developing alternative water supplies. An estimate of the costs associated with maintaining the existing water infrastructure and the costs specific to protecting natural systems are not yet included. The future demand not met with existing supply assumes average weather conditions and that the demand which has been met in the past will continue to be met in the future. The risk inherent in these assumptions needs to be explored.

EDR has additionally begun the process of evaluating the data and methodology to be used in forecasting expenditures necessary to comply with federal and state laws and regulations governing water quality. As a first step, EDR has identified the federal Clean Water Act and the

⁸ See Table 3.2.2.

⁹ See Chapter 3 and specifically Tables 3.3.11, 3.3.12, 3.3.13, and 3.3.14.

Florida Watershed Restoration Act as having specific requirements for water quality protection and restoration. Within these laws, the costs associated with establishing Total Maximum Daily Loads and implementing them through Basin Management Action Plans are necessary for compliance with these laws and therefore must be included in EDR's forecasts.¹⁰ Basin Management Action Plans continue to be developed for impaired waterbodies and are generally implemented in phases. At best, the total estimated costs of completed, planned, and underway projects of \$6.6 billion (plus \$57.08 million annually in operation and maintenance)¹¹ provides the minimum floor of what is currently known.

In the 2017-18 fiscal year, the State of Florida expended approximately \$59 million on water supply¹² projects and an additional \$908 million on water quality and other water resource-related programs.¹³ In the most recent three fiscal years, expenditures for water resources have increased significantly, leading to questions about financial sustainability. EDR's forecasts indicate that the recent levels of increases in expenditures cannot be sustained into the future using only the implied revenue shares historically allocated to water resources. In this regard, a gap exists in every future year, growing to \$383.6 million¹⁴ by the end of the ten-year forecast period—and this does not include any specific adjustments for new or expanding initiatives. Potential options to close the projected gap include the use of statutorily uncommitted Documentary Stamp Taxes, additional General Revenue funds, or bonding. As a result, substantial policy questions arise. What is the total amount of funding that should be committed to these initiatives? What are the appropriate levels of funding and shares among public and private stakeholders? To what extent should land acquisition programs be required to identify quantifiable water resource benefits? It is EDR's objective that this annual report will assist policy makers in developing the answers to these types of questions.

Subsequent editions of this report will further analyze the future expenditures necessary to comply with laws governing water supply and water quality as well as achieve the Legislature's intent that sufficient water be available for all existing and future reasonable-beneficial uses and the natural systems, while avoiding the adverse effects of competition for water supplies. EDR is currently working to improve the integrated water supply and demand model necessary to address this analysis. EDR intends to rely primarily on the districts for water supply and water source data, focusing instead on the development and timing of water demand, as well as the economic ramifications of the interaction between demand and supply. Recommendations for a statutorily-created workgroup to improve the data used by the integrated supply and demand model are contained in subsection 3.4.

¹⁰ See subsection 4.2.

¹¹ See Table 4.2.3.

¹² See Table 4.1.1.

¹³ See Table 4.1.8.

¹⁴ See Table 4.4.1.