

Annual Assessment of Florida's Water Resources: Infrastructure Investments

2024 Edition
Chapter 5

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The 273 local governments that submitted a 20-Year Wastewater Services Needs Analysis

The 823 local governments that submitted a 20-Year Stormwater Management Needs Analysis

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Executive Summary

This chapter focuses on reports produced by local governments in response to statutory requirements and surveys. In 2021, the Florida Legislature passed Committee Substitute for Committee Substitute for Committee Substitute for House Bill 53. This bill created two new statutes, s. 403.9301, F.S., and s. 403.9302, F.S., regarding wastewater and stormwater planning, respectively. Fulfilling the new 20-year needs analysis requirements was a significant undertaking for Florida’s counties, municipalities, and special districts.

After additional data cleaning since the publication of the 2023 Edition of this Annual Assessment, the statewide report relies on data from 823 stormwater management submissions and 273 wastewater services submissions from counties, municipalities, and special districts across the state. Altogether, the needs for the next twenty years total \$187.9 billion, with 52 percent associated with routine operation and maintenance (O&M) costs and 48 percent associated with major capital improvement projects. If estimates for non-respondents are included, costs may be at least 6.5 percent higher for stormwater management.

Reported Expenditure Needs Over 20 Years (in \$millions)

Expenditure Type	Stormwater Management	Wastewater Services	Total	Percent of Total
O&M	\$20,221.73	\$77,242.10	\$97,463.84	52%
Expansion / Improvement	\$28,124.98	\$62,286.68	\$90,411.65	48%
Total	\$48,346.71	\$139,528.78	\$187,875.49	

* Note: What is typically called “capital improvement” expenditures are referred to as “Expansion” in the templates.

Because O&M expenditures are expected to be funded first, this report focuses on future capital improvement projects. In the detailed data, these projects have been grouped by type of issue the local government is attempting to address. Using dollars as a proxy for overall importance, the three most important project types are shared between stormwater and wastewater programs. As long suspected, End of Useful Life Replacement is the largest category of need, followed by Water Quality and Resiliency.

Capital improvement projects are further characterized as either having a committed funding source or not. Of the \$90.4 billion in overall capital improvement projects, only 45.2 percent, or \$40.9 billion, currently has committed funding sources.

Local governments were also asked to identify potential strategies and estimate new revenues to close their funding gaps. Overall, Florida’s wastewater industry has experience with long-term planning that stormwater management does not, leading to more certainty that significant progress can be made to closing—but not eliminating—the funding gaps in that sector. The planning

horizon for stormwater management has typically been short, but the new legislation has required local governments to shift their perspectives to the longer term.

In 2021, the U.S. Environmental Protection Agency conducted the Seventh Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) and the Office of Economic and Demographic Research (EDR) conducted a drinking water survey for the first time. According to the 2021 DWINSA, Florida's estimated 20-year capital improvement expenditures are \$26.75 billion. Though DWINSA does not forecast O&M costs, a general estimate can be calculated from the results of EDR's survey. Adjusted for inflation, Florida's drinking water expenditures will exceed \$135.5 billion over two decades.

The next needs assessments for stormwater and wastewater are due June 30, 2027. To improve the policy value of these assessments, the legislature might consider making funding (grants or loans) available to local governments to develop or update asset management systems prior to that time. This policy value would come from greater accuracy, more informed projections, and potentially better response rates.

5. Florida’s Water Infrastructure

Part of section 403.928(1)(b), Florida Statutes, requires an annual assessment of future governmental and utility expenditures to comply with laws and regulations governing water supply and demand and those governing water quality protection and restoration. Intrinsic to supplying water and water quality protection is the infrastructure that transports and the facilities that treat drinking water, wastewater, and stormwater.

In this edition, the first two sections of this chapter examine the stormwater and wastewater needs analyses submitted to the Office of Economic and Demographic Research (EDR) under ss. 403.9302 and 403.9301, F.S., and first summarized in the previous edition of this report. The U.S. Environmental Protection Agency’s (EPA’s) recently published Seventh Drinking Water Needs Survey and Assessment is discussed in section 5.3, including Florida’s lead service line inventory. Section 5.4 contains the results of EDR’s own 2021 drinking water survey and a statewide estimate of Florida’s drinking water needs based on EDR’s survey and the EPA’s assessment. Finally, section 5.5 contains revenue and expenditure forecasts for local governments.¹

The previous edition of this report contained a detailed description of the statutory requirements for the stormwater management and wastewater services 20-year needs analyses and minutely described the template EDR created for local governments to submit their data. Much of the data in the 2023 Edition was reported as statewide aggregates or merely divided into coastal and inland groups depending on whether the county in which local governments were located had a coastline. The analysis in this edition discusses the projected expenditures in more detail and examines the industry-specific categories respondents assigned to future projects.

The data in this edition has undergone further quality review and does not perfectly match the previously published estimates. Because of this, the data in this report supersedes all previously published information. The dataset’s changes include the removal of duplicated submissions, correction of governmental types (*e.g.*, a special district is no longer misclassified as a municipality), and the correction of erroneously scaled estimates.² Additionally, municipalities are no longer classified as either “coastal” or “inland” based solely on whether the county that a municipality is located within has a coastline. Only municipalities that are within approximately 3,000 feet of a coastline are still considered “coastal,” while municipalities any further inland are classified as “inland.” Table 5.0.1 contains the total operation and maintenance (O&M) and project expenditure forecast reported by local governments on their needs analyses. In total, this \$187.88 billion total is a significant decrease from what was previously reported. Overall, the stormwater costs are 22.8 percent lower, and the wastewater costs are 0.5 percent higher.

¹ In previous editions, this data was published alongside water quality revenue and expenditure data in chapter 4.

² In the previous edition the wastewater Operation & Maintenance (O&M) projections for the Central Florida Tourism Oversight District (submitted as the Reedy Creek Improvement District) were divided by 1,000 under the assumption that the district reported their projections in dollars instead of thousands of dollars. This has been corrected. Additionally, the stormwater O&M for Opa-Locka should have been divided by 1,000 and was not, so that version erroneously reported Opa-Locka would spend billions of dollars on stormwater management, instead of millions.

Table 5.0.1 20-Year Total Expenditure Estimates by Infrastructure and Expenditure Type (in \$millions)

Expenditure Type	Stormwater Management	Wastewater Services	Total	Percent of Total
O&M	\$20,221.73	\$77,242.10	\$97,463.84	52%
Expansion / Improvement	\$28,124.98	\$62,286.68	\$90,411.65	48%
Total	\$48,346.71	\$139,528.78	\$187,875.49	100%

Before the 20-year needs analyses required by ss. 403.9301 and 403.9302, F.S., the EPA’s 2012 Clean Watersheds Needs Survey (CWNS) was the last major survey of Florida’s stormwater and wastewater infrastructure needs.³ According to the 2012 CWNS, Florida’s 20-year capital improvement expenditure estimate for stormwater infrastructure was \$499.08 million in 2012, while the official wastewater estimate was \$17.92 billion. Table 5.0.2 shows the results of the 2012 CWNS survey adjusted for inflation using the Bureau of Labor Statistics’ Cost Price Index for All Urban Consumers and the *Engineering News-Record*’s Construction Cost Index.⁴

Table 5.0.2 CWNS 20-Year Expenditure Estimates for Florida (in \$millions)

Category	2012 CWNS Estimate	CPI-Adjusted Estimate*	ENR CCI-Adjusted Estimate*
I. Secondary Wastewater Treatment	\$0.00	\$0.00	\$0.00
II. Advanced Wastewater Treatment	\$11,328.06	\$14,977.38	\$16,298.63
III. Conveyance System Repair	\$1,691.62	\$2,236.58	\$2,433.88
IV. New Conveyance Systems	\$2,802.39	\$3,705.18	\$4,032.03
V. CSO Correction	\$0.00	\$0.00	\$0.00
VI. Stormwater Management Program	\$499.08	\$659.86	\$718.07
X. Recycled Water Distribution	\$2,101.66	\$2,778.71	\$3,023.83
Total Official Needs	\$18,422.82	\$24,357.71	\$26,506.45
XII. Decentralized Wastewater Treatment	\$5,586.00	\$7,385.00	\$9,764.00

* The estimates are adjusted from January 2012 to Fiscal Year 2022-23 using multipliers. The CPI multiplier was 1.322148919 and the ENR CCI multiplier was 1.438783602.

The background and limitations of the CWNS estimates are discussed in detail in chapter 6 of the 2020 Edition of this report. Major limitations include only allowing expenditures for projects with extensive documentation, excluding all Operation & Maintenance (O&M) expenditures, a low response rate, and not extrapolating the submitted data to calculate a true statewide expenditure

³ EPA, Clean Watersheds Needs Survey 2012, available at: https://www.epa.gov/sites/default/files/2015-12/documents/cwns_2012_report_to_congress-508-opt.pdf. (Accessed February 2024.) Florida’s database of survey responses is available at: <https://ordspub.epa.gov/ords/cwns2012/f?p=134:25:>. (Accessed January 2024.)

⁴ BLS, CPI-All Urban Consumers, Series ID: CUUR0000AA0. The *Engineering News-Record*’s Construction Cost Index was the index used by the EPA for its 2002 report “The Clean Water and Drinking Water Infrastructure Gap Analysis” to adjust CWNS estimates. A cached version of the Construction Cost Index as of January 2024 is available at https://webcache.googleusercontent.com/search?q=cache:Pck3_HUJ8RwJ:https://www.enr.com/economics/historical_indices/construction_cost_index_history+&cd=12&hl=en&ct=clnk&gl=us. (Accessed February 2024.)

estimate which takes into account non-responding local governments. Even using the more aggressive construction cost index, the adjusted stormwater management estimate of \$718.07 million vastly underrepresents what local governments will spend on capital improvement projects in the next 20 years. By comparison, Florida’s local governments reported \$1.617 billion in actual stormwater expenditures (under expenditure code 538 — Flood Control/Stormwater Control Expenditures) for local fiscal year 2020-21.⁵

5.1 Stormwater Management 20-Year Needs Analysis

Overall, this analysis is based on needs analyses from 823 local governments. The total 20-year expenditure estimate for Florida’s county, municipal, and special district stormwater expenditures is summarized in Table 5.1.1. Much of the explanation of stormwater management programs and inventory is similar to the previous edition’s discussion, while the expenditure forecast has been significantly corrected.

Table 5.1.1 Reported Stormwater Expenditure Projection Totals (in \$millions)

Stormwater Expenditures	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	Total
O&M	\$4,228.57	\$4,711.64	\$5,324.51	\$5,957.02	\$20,221.73
Expansion / Improvement	\$9,812.85	\$6,944.63	\$5,503.25	\$5,864.24	\$28,124.98
Total	\$14,041.42	\$11,656.27	\$10,827.75	\$11,821.26	\$48,346.71

* Note: This is the estimated project expenditure total, including projects that have a committed funding source and those that have no identified funding source.

Stormwater Programs and Inventory

Unlike drinking water and wastewater services, stormwater management is not necessarily provided by a utility. Many local governments provide management services directly. Among counties and municipalities, only seven counties and 71 municipalities provided utility names. Both with and without dedicated utilities, the number of local governments using “green” best management practices (BMPs) is expected to expand. For stormwater management, these practices are meant to minimize interference in the natural water cycle. Tree boxes, rain gardens, green roofs, and pervious pavement (which water can flow through) all allow water to be absorbed before it flows into a culvert or ditch and into a stormwater basin. Littoral zone plantings and living shorelines stabilize natural or stormwater basin shorelines and absorb excess nutrients. Though many submissions did not contain any response in this section, every type of best management practice listed is expected to expand to additional local governments.

⁵ This total includes expenditures made by multi-county special districts.

Table 5.1.2 Best Management Practices

Best Management Practice	Currently in Use	Not in use, but planned
Tree boxes	25	49
Rain gardens	45	52
Green roofs	4	19
Pervious pavement/pavers	121	35
Littoral zone plantings	114	21
Living shorelines	70	25

Stormwater management program activities vary depending on the jurisdiction, budgetary limitations, and local needs. Among the activities the template specifically asked whether a local government performed, the only activity for which more than half of the special districts answered “Yes” was having a system to administer stormwater management complaints. Counties and municipalities are more engaged in a wide variety of activities, as shown in table 5.1.3. Across the board, coastal jurisdictions had more active stormwater management programs, though not by much. The percentages in this table are calculated using the total number of local governments that answered either “Yes” or “No” when asked if they engaged in a specific activity.

Table 5.1.3, County and Municipal Program Activities

County & Municipal Activities	Inland		Coastal			
	Count	Percent*	Count	Percent*	Count	Percent*
A construction sediment and erosion control program for new construction (plans review and/or inspection)	125	94%	156	98%	281	96%
An illicit discharge inspection and elimination program	110	83%	148	93%	258	88%
A public education program	107	80%	146	92%	253	87%
A program to involve the public regarding stormwater issues	105	79%	138	87%	243	83%
A “housekeeping” program for managing stormwater associated with vehicle maintenance yards, chemical storage, fertilizer management, etc.	104	78%	135	85%	239	82%
A stormwater ordinance compliance program (i.e., for low phosphorus fertilizer)	91	69%	126	80%	217	75%
Water quality or stream gage monitoring	69	52%	91	59%	160	56%
A geospatial data or other mapping system to locate stormwater infrastructure (GIS, etc.)	106	80%	143	90%	249	85%
A system for managing stormwater complaints	114	86%	147	93%	261	90%

* The percentages in this table are calculated using the total number of local governments that answered either “Yes” or “No” when asked if they engaged in a specific activity. Blank answers were ignored. There were 303 submissions belonging to counties and municipalities, though at most 292 reported whether or not they engaged in any specific activity.

Asset management systems, which track the location, history, and condition of a system’s infrastructure assets, are tools that require large initial investments (in money, time, effort, and

political capital) but provide cost savings and lower risk over the long-term.⁶ Table 5.1.4 shows the instance of asset management systems among inland and coastal counties and municipalities. Notably, among the jurisdictions that do have asset management systems, few actually have all of their assets recorded in their system.

Table 5.1.4 Count of Local Governments with Stormwater Asset Management Systems

Local Government Type	Location	Has an Asset Management System	System contains 100% of assets
County	Inland	10	4
	Coastal	22	8
Municipality	Inland	56	38
	Coastal	63	40
Special District	Inland	12	12
	Coastal*	91	81
Total		254	183

* Special districts are considered “coastal” based on the county’s location. Municipalities not within approximately 3,000 feet of a coast are considered “inland” even if the county they are located in has a coastline.

EDR requested local governments submit inventory aggregates regardless of the completion of a formal asset management system. Table 5.1.5 contains a coastal/inland breakdown for counties and municipalities, and a total of all special district inventory data. Appendix A contains a table with county-level inventory aggregates.

Table 5.1.5 Stormwater Management Inventory Aggregates

	Counties		Municipalities		Counties & Municipalities	Special Districts
	Inland	Coastal	Inland	Coastal	Total	
Estimated miles of buried culvert	6,152	12,803	6,234	13,869	39,059	2,026
Estimated miles of open ditches/conveyances (lined and unlined)	16,811	31,018	8,402	3,269	59,500	5,349
Estimated number of storage or treatment basins (i.e., wet or dry ponds)	6,990	15,023	5,356	9,670	37,039	10,348
Estimated number of gross pollutant separators including engineered sediment traps	585	1,250	2,909	2,862	7,606	1,439
Number of chemical treatment systems	5	7	32	20	64	1
Number of stormwater pump stations	57	194	249	130	630	100
Number of dynamic water level control structures	703	5,625	834	2,976	10,138	1,097
Number of stormwater treatment wetland systems	4	27	33	21	85	166

⁶ EPA, “Asset Management Programs for Stormwater and Wastewater Systems: Overcoming Barriers to Development and Implementation,” 2017, <https://www.epa.gov/sites/default/files/2018-01/documents/overcoming-barriers-to-development-and-implementation-of-asset-management-plans.pdf>. (Accessed January 2023.)

The inventory data shows that for some newer approaches to stormwater management, adoption of a strategy depends on location. All 166 of the stormwater treatment wetland systems owned by special districts are located in either the South Florida Water Management District or the Southwest Florida Water Management District. While the majority of the county- and municipality-owned systems are also located in those two districts, other water management districts have also permitted stormwater treatment wetland systems to counties and municipalities. This might be due to the focus and outreach efforts of the water management districts or due to localized trends for planning and management of community development districts or some combination of both.

Stormwater Expenditures and Projections

Expenditure projections were broadly reported as operation and maintenance (O&M) and expansion, or capital improvements. Local governments were asked to incorporate an adjustment for projected inflation into their projections and to aggregate their expenditure projections into totals for 5-year increments. The template guidance specified that for expenditure projections, respondents were to assume that O&M expenditures would be fully funded before any additional capital expenditures. Beyond O&M, the template allowed local governments to report capital improvement (referred to as expansion) expenditures by listing major projects planned or expected to be undertaken. Projects were classified in two ways: project type and funding source type. The four stormwater project categories were Flood Protection, Water Quality, End of Useful Life, and Resiliency. The two funding source types were “committed funding source” and “no identified funding source.” Committed funding sources include “the capacity to absorb the project’s capital cost within current budget levels or forecasted revenue growth; financing that is underway or anticipated (bond or loan); known state or federal funding (appropriation or grant); special assessment; or dedicated cash reserves for future expenditure.”⁷ No identified funding source includes projects or anticipated need(s) without formal funding commitments(s), formal pledges, or obligations.

Reported O&M expenditures are approximately 42 percent of the total projected expenditures. For these estimates, shown in table 5.1.6, O&M includes any non-capital improvement expenditure, including asset replacements that are less than 5% of the jurisdiction’s 5-year O&M expenditures.

Table 5.1.6 Reported O&M Projections (in \$millions)

Jurisdiction Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
County	\$1,390.50	\$1,519.56	\$1,714.89	\$1,886.18	\$6,511.13
Municipality	\$2,530.66	\$2,859.44	\$3,238.79	\$3,656.50	\$12,285.38
Special District	\$307.41	\$332.64	\$370.83	\$414.34	\$1,425.22
Total	\$4,228.57	\$4,711.64	\$5,324.51	\$5,957.02	\$20,221.73

⁷ EDR, “Stormwater 20-Year Needs Analysis Template,” part 5.0, October 2021, available at <http://edr.state.fl.us/Content/natural-resources/stormwaterwastewater.cfm>. (Accessed February 2024.)

The previous edition stated that special districts account for 10 percent of the O&M expenditures throughout the projection. After removing duplicate submissions for special districts and correcting mis-scaled municipal expenditure estimates, districts now account for approximately 7 percent of the O&M projections throughout the next 20 years. Counties account for approximately 32 percent and municipalities for the remaining 61 percent of the O&M expenditures throughout the horizon.

It should be noted that these proportions are not necessarily true for all local governments, just those that submitted needs analyses to EDR. Using local government expenditure data extracted from the Florida Department of Financial Services' Local Government Financial Reporting database, special districts accounted for approximately 18 percent of operating expenses and personnel services expenditures under account code 538 – Flood Control/Stormwater Control among counties, municipalities, and special districts from local fiscal year 2016-17 to 2019-20.⁸ In that data, the proportion of municipal expenditures accounted for 60 percent and counties for 22 percent of the total operating and personnel expenditures.

Despite special districts being comparatively underrepresented compared to audited local government financial data, special districts are the one type of local government for which this analysis cannot take missing or non-responding entities into account for a statewide projection. The statewide O&M forecast is made using population estimates, which do not exist for special districts. Therefore, the reported special district expenditures are added to the adjusted forecasts of inland and coastal counties and municipalities. The adjustment is a multiplication factor based on the missing percentage of the total population for that local government type and location.⁹ For example, 99.1 percent of residents living in unincorporated areas of coastal counties live in counties that submitted a stormwater needs analysis; a multiplication factor was applied to the coastal county O&M projection to account for stormwater management expenditures for the missing segment of the population. Table 5.1.7 shows the reported O&M expenditures, the multiplication factor for each jurisdiction group, and the extrapolated statewide expenditure estimate for the 20-year projections.

[See table on following page]

⁸ This data was downloaded from December 14, 2023 to December 27, 2023 from the CFO's publicly accessible Local Government Financial Reporting database *ad hoc* reporting application, available at: <https://apps.fldfs.com/LocalGov/Reports/AdHoc.aspx>. (Accessed December 2023.) Water Management Districts were removed from the special district data.

⁹ EDR, Florida Population Estimates by County and Municipality, April 1, 2023, available at http://edr.state.fl.us/Content/population-demographics/data/2023_Pop_Estimates.pdf. (Accessed November 2023.)

Table 5.1.7 O&M Expenditure Projections (in \$millions)

		Operation & Maintenance Projections				Multiplication Factor
Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	
Coastal	Counties	\$1,247.13	\$1,357.43	\$1,539.09	\$1,691.87	1.00882281
	Municipalities	\$1,744.60	\$1,978.65	\$2,268.79	\$2,595.16	1.09502006
Inland	Counties	\$143.37	\$162.12	\$175.80	\$194.31	1.08365194
	Municipalities	\$786.05	\$880.78	\$970.00	\$1,061.34	1.12851316
Districts (All)		\$307.41	\$332.64	\$370.83	\$414.34	None
Statewide Total		\$4,228.57	\$4,711.64	\$5,324.51	\$5,957.02	

		Operation & Maintenance Projections (Full Population)				
Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Coastal	Counties	\$1,258.13	\$1,369.41	\$1,552.67	\$1,706.80	\$5,887.01
	Municipalities	\$1,910.38	\$2,166.67	\$2,484.37	\$2,841.75	\$9,403.16
Inland	Counties	\$155.36	\$175.69	\$190.50	\$210.56	\$732.12
	Municipalities	\$887.07	\$993.98	\$1,094.66	\$1,197.74	\$4,173.45
Districts (All)		\$307.41	\$332.64	\$370.83	\$414.34	\$1,425.22
Statewide Total		\$4,518.36	\$5,038.38	\$5,693.03	\$6,371.19	\$21,620.96

Capital improvement, or expansion, expenditure projections are more detailed than the O&M estimates. In addition to projects being reported as having a committed funding source or having no identified funding source, they were also assigned one of four project categories (Flood Protection, Water Quality, End of Useful Life, and Resiliency). Table 5.1.8, Reported Expenditures by Project Type and Funding Source (in \$millions), contains the total projected expenditures for each 5-year increment for all submissions.

Table 5.1.8 Reported Expenditures by Project Type and Funding Source (in \$millions)

Project Type	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Flood Protection	\$1,770	\$625	\$432	\$450	\$1,497	\$1,724	\$1,227	\$1,213
Water Quality	\$831	\$330	\$193	\$137	\$977	\$1,532	\$1,082	\$970
Resiliency	\$1,421	\$241	\$119	\$119	\$1,868	\$1,178	\$1,090	\$1,553
End of Useful Life	\$579	\$339	\$355	\$388	\$871	\$975	\$1,006	\$1,034
Total	\$4,600	\$1,535	\$1,098	\$1,094	\$5,213	\$5,410	\$4,405	\$4,771

Project Type	Total				20-Year Total	Percent of Total Projects
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42		
Flood Protection	\$3,267	\$2,350	\$1,659	\$1,663	\$8,938	31.8%
Water Quality	\$1,808	\$1,862	\$1,275	\$1,107	\$6,051	21.5%
Resiliency	\$3,288	\$1,419	\$1,209	\$1,672	\$7,589	27.0%
End of Useful Life	\$1,450	\$1,314	\$1,361	\$1,422	\$5,547	19.7%
Total	\$9,813	\$6,945	\$5,503	\$5,864	\$28,125	100%

Committed funding source projects are heavily front-loaded, with over half of all expenditures taking place in the first 5-year increment. This is likely due to the fact that most local governments already had stormwater projects written into their capital improvement plan, which would include most or all of the first 5-year increment. Expenditures with a committed funding source then drop precipitously, while those for projects with no identified funding source grow slightly. Figure 5.1.1 shows the proportion of each project type’s expenditures that occur in each 5-year increment for those with committed funding. End of Useful Life projects are the most stable throughout the four increments, while nearly 75 percent of expenditures for Resiliency will happen in the first five years.

Figure 5.1.1 Timing of Projects with a Committed Funding Source by Project Type

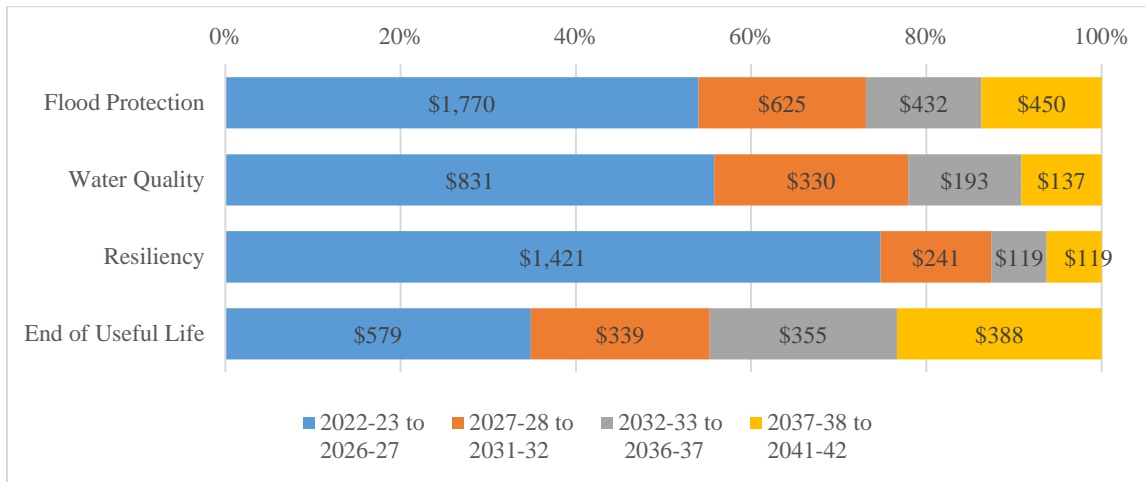
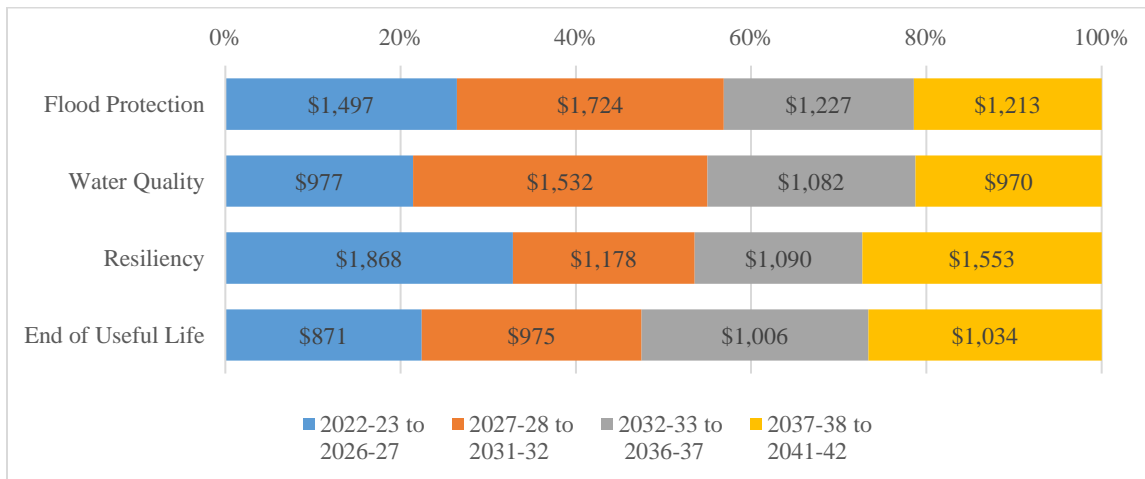


Figure 5.1.2 contains projects with no identified funding source. Throughout the 20-year horizon, planning for projects with no identified funding source is remarkably stable.

Figure 5.1.2 Timing of Projects with No Identified Funding Source by Project Type



The table, 5.1.9, contains more detailed expenditure data for all project types. County, municipality, and district expenditures are aggregated to the county level. Note that counties that are entirely missing from the table had either no local governments that submitted information or the information that they submitted could not be incorporated into EDR's database. The data is presented in millions of dollars in this table, with zeroes shown in light grey and expenditures that round down to zero in black. Appendix A.1 contains this data separated by project type.

[See table on following page.]

Table 5.1.9 Total Project Expenditure Projections Aggregated by County (in \$millions)

County	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$10.61	\$6.02	\$5.38	\$5.38	\$19.35	\$12.70	\$14.75	\$2.55
Bay	\$80.68	\$0.50	\$0.50	\$0.50	\$58.46	\$87.02	\$91.02	\$96.02
Brevard	\$48.81	\$21.00	\$14.94	\$23.10	\$87.91	\$55.99	\$48.22	\$46.25
Broward	\$280.05	\$81.68	\$56.32	\$57.06	\$441.99	\$271.41	\$179.75	\$144.08
Charlotte	\$6.07	\$0.08	\$0.08	\$0.08	\$5.35	\$0.02	\$0.02	\$0.01
Citrus	\$11.90	\$1.25	\$1.25	\$1.25	\$64.06	\$66.62	\$43.20	\$43.86
Clay	\$5.24	\$0.09	\$0.12	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$329.54	\$10.31	\$7.39	\$8.32	\$13.21	\$103.13	\$68.79	\$30.95
Columbia	\$11.14	\$0.00	\$0.00	\$0.00	\$4.85	\$9.00	\$6.25	\$4.50
DeSoto	\$3.26	\$0.26	\$0.26	\$0.26	\$5.50	\$0.00	\$0.00	\$0.00
Duval	\$331.59	\$72.41	\$50.86	\$51.00	\$354.72	\$1,086.97	\$1,094.40	\$1,299.47
Escambia	\$31.65	\$2.10	\$0.00	\$0.00	\$190.32	\$89.67	\$93.15	\$143.96
Flagler	\$18.38	\$7.32	\$6.99	\$7.29	\$36.49	\$11.45	\$12.30	\$13.22
Gadsden	\$0.88	\$1.50	\$0.00	\$0.00	\$3.38	\$0.75	\$0.00	\$0.00
Glades	\$0.11	\$0.11	\$0.12	\$0.12	\$0.00	\$0.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.33	\$0.35	\$0.36	\$0.37
Hendry	\$5.64	\$1.25	\$1.25	\$1.25	\$5.45	\$3.74	\$5.21	\$3.01
Hernando	\$9.76	\$1.29	\$1.50	\$1.73	\$0.40	\$10.71	\$7.70	\$6.40
Highlands	\$15.47	\$6.17	\$1.23	\$1.27	\$9.95	\$15.90	\$15.00	\$5.00
Hillsborough	\$271.95	\$170.29	\$100.00	\$101.85	\$364.99	\$425.57	\$487.35	\$486.87
Indian River	\$20.19	\$3.92	\$4.54	\$4.86	\$135.13	\$172.64	\$170.16	\$71.30
Lake	\$20.71	\$7.74	\$8.55	\$9.47	\$43.34	\$47.75	\$35.05	\$27.83
Lee	\$286.51	\$218.08	\$231.65	\$233.21	\$151.62	\$105.51	\$69.42	\$62.21
Leon	\$49.07	\$23.00	\$23.00	\$23.00	\$24.59	\$106.11	\$121.30	\$2.81
Levy	\$0.91	\$0.00	\$0.00	\$0.00	\$2.41	\$1.54	\$1.73	\$1.95
Liberty	\$0.80	\$0.00	\$0.00	\$0.00	\$1.30	\$0.00	\$0.00	\$0.00
Manatee	\$9.80	\$3.90	\$3.89	\$5.01	\$229.26	\$6.57	\$9.70	\$103.37
Marion	\$15.95	\$0.00	\$0.00	\$0.00	\$8.53	\$9.71	\$9.50	\$14.47
Martin	\$40.01	\$0.07	\$0.00	\$0.07	\$66.94	\$106.03	\$69.71	\$62.73
Miami-Dade	\$1,232.56	\$294.90	\$150.22	\$158.70	\$593.06	\$1,040.41	\$534.30	\$500.34
Monroe	\$34.22	\$0.00	\$0.00	\$0.00	\$991.21	\$250.13	\$221.28	\$432.96
Nassau	\$12.29	\$7.11	\$7.17	\$7.51	\$19.26	\$9.38	\$7.24	\$7.74
Okaloosa	\$28.03	\$5.20	\$0.01	\$0.00	\$18.41	\$27.84	\$30.05	\$26.04
Okeechobee	\$2.13	\$0.00	\$0.00	\$0.00	\$5.59	\$30.59	\$0.00	\$0.00
Orange	\$116.05	\$82.83	\$86.99	\$27.08	\$261.49	\$87.47	\$84.98	\$67.84
Osceola	\$4.38	\$0.00	\$0.00	\$0.00	\$64.33	\$8.93	\$0.00	\$0.00
Palm Beach	\$198.03	\$63.62	\$70.76	\$75.02	\$74.09	\$124.39	\$180.79	\$180.82
Pasco	\$59.96	\$60.41	\$68.01	\$78.94	\$0.50	\$18.02	\$2.58	\$5.80
Pinellas	\$334.70	\$172.48	\$69.65	\$79.27	\$105.97	\$240.26	\$198.79	\$402.29
Polk	\$122.49	\$14.35	\$4.63	\$2.67	\$144.72	\$68.54	\$12.70	\$4.65
Santa Rosa	\$54.68	\$0.00	\$0.00	\$0.00	\$22.85	\$44.04	\$44.97	\$44.37
Sarasota	\$53.04	\$29.11	\$19.98	\$23.55	\$146.17	\$196.67	\$98.80	\$75.53
Seminole	\$67.54	\$22.12	\$19.91	\$17.35	\$60.39	\$57.11	\$39.00	\$41.12
St Johns	\$135.23	\$25.16	\$29.30	\$34.47	\$23.54	\$78.50	\$46.00	\$81.54
St Lucie	\$63.99	\$100.72	\$44.71	\$45.53	\$90.06	\$97.90	\$32.04	\$29.37
Sumter	\$12.08	\$0.00	\$0.00	\$0.00	\$15.31	\$1.50	\$1.50	\$1.50
Taylor	\$4.00	\$0.00	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$0.00
Volusia	\$121.24	\$13.06	\$6.95	\$7.32	\$239.62	\$218.72	\$213.73	\$192.72
Walton	\$26.39	\$3.57	\$0.00	\$0.00	\$6.58	\$2.40	\$2.40	\$2.81
Statewide	\$4,599.73	\$1,534.97	\$1,098.07	\$1,093.63	\$5,213.12	\$5,409.66	\$4,405.18	\$4,770.61

Looking more broadly, table 5.1.10 aggregates projected expenditures for each funding source type, segregated by local government type and, for counties and municipalities, proximity to a coastline. Note that municipalities located in coastal counties are only classified as coastal if the municipality itself is within approximately 3,000 feet of the coast.

Table 5.1.10 Project Expenditures by Local Government Type and Location

		Committed Funding Source				No Identified Funding Source			
Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Counties	\$1,632.51	\$574.34	\$429.53	\$435.86	\$2,284.21	\$2,573.32	\$2,326.63	\$2,751.16
	Municipalities	\$2,040.46	\$631.53	\$400.63	\$442.71	\$1,811.68	\$1,956.57	\$1,448.48	\$1,636.15
Inland	Counties	\$146.07	\$78.70	\$80.00	\$15.12	\$462.18	\$275.60	\$212.33	\$35.98
	Municipalities	\$603.41	\$149.79	\$105.35	\$108.92	\$510.45	\$550.58	\$358.80	\$282.84
Districts (All)		\$177.28	\$100.62	\$82.56	\$91.02	\$144.62	\$53.60	\$58.93	\$64.49
Statewide Total		\$4,599.73	\$1,534.97	\$1,098.07	\$1,093.63	\$5,213.12	\$5,409.66	\$4,405.18	\$4,770.61

		Committed + No Identified Funding Source			
Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Counties	\$3,916.71	\$3,147.65	\$2,756.16	\$3,187.02
	Municipalities	\$3,852.13	\$2,588.09	\$1,849.11	\$2,078.86
Inland	Counties	\$608.25	\$354.30	\$292.34	\$51.10
	Municipalities	\$1,113.85	\$700.37	\$464.15	\$391.76
Districts (All)		\$321.90	\$154.22	\$141.49	\$155.51
Statewide Total		\$9,812.85	\$6,944.63	\$5,503.25	\$5,864.24

The relative drop (or growth) in project expenditures between each 5-year increment and its preceding increment is shown as a percent change in table 5.1.11. Inland counties plunge at the tail end of the projection, but their projected spending even in early years is quite low, and over the entire forecast they account for 4.6 percent of the project expenditure forecast and a mere 2.1 percent of the O&M projection. Statewide, the coastal counties and municipalities control the direction of the forecast.

[See table on following page]

Table 5.1.11 Projected Expenditures with a Committed Funding Source (in \$millions)

Location	Local Government Type	Committed Funding Source			No Identified Funding Source		
		2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Counties	-64.8%	-25.2%	1.5%	12.7%	-9.6%	18.2%
	Municipalities	-69.0%	-36.6%	10.5%	8.0%	-26.0%	13.0%
Inland	Counties	-46.1%	1.7%	-81.1%	-40.4%	-23.0%	-83.1%
	Municipalities	-75.2%	-29.7%	3.4%	7.9%	-34.8%	-21.2%
	Districts (All)	-43.2%	-18.0%	10.2%	-62.9%	10.0%	9.4%
	Statewide Total	-66.6%	-28.5%	-0.4%	3.8%	-18.6%	8.3%

Location	Local Government Type	Committed & No Identified Funding Source		
		2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Counties	-19.6%	-12.4%	15.6%
	Municipalities	-32.8%	-28.6%	12.4%
Inland	Counties	-41.8%	-17.5%	-82.5%
	Municipalities	-37.1%	-33.7%	-15.6%
	Districts (All)	-52.1%	-8.3%	9.9%
	Statewide Total	-29.2%	-20.8%	6.6%

Even though EDR’s needs analysis template had more lenient documentation standards than the EPA’s CWNS survey, the reported projected expenditures become less accurate and increasingly underrepresent what the state can expect local governments to spend on capital improvements. This section explores two ways to calculate project expenditures based on the reported project expenditures in the first 5-year increment, one based on the O&M projections and one based on population growth.

The growth in table 5.1.12 is based on the change in the O&M forecast between 5-year increments. Project expenditures, both with a committed funding source and with no identified funding source, are the reported totals in the 2022-23 to 2026-27 field. The rest of the forecast is calculated by applying the O&M growth factor to the preceding increment. This estimate is, in all likelihood, too aggressive. Local governments were informed that O&M expenditures should be considered to have a committed funding source, as operating and maintaining the existing infrastructure is a necessity before any expansion can be proposed. This aggressive growth rate increases the total project expenditures from \$20.22 to \$46.89 billion.

[See table on following page]

Table 5.1.12 Project Expenditure Forecast with O&M Growth Rate

		O&M Growth Factor for:		
		2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Location	Local Government Type			
Coastal	Counties	1.088	1.134	1.099
	Municipalities	1.134	1.147	1.144
Inland	Counties	1.131	1.084	1.105
	Municipalities	1.121	1.101	1.094
	Districts (All)	1.082	1.115	1.117
Statewide Total		1.114	1.130	1.119

		Reported	Grown at Same Rate as O&M		
		2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Location	Local Government Type				
Coastal	Counties	\$3,916.71	\$4,263.14	\$4,833.65	\$5,313.46
	Municipalities	\$3,852.13	\$4,368.92	\$5,009.55	\$5,730.17
Inland	Counties	\$608.25	\$687.81	\$745.83	\$824.35
	Municipalities	\$1,113.85	\$1,248.09	\$1,374.51	\$1,503.94
	Districts (All)	\$321.90	\$348.32	\$388.31	\$433.87
Statewide Total		\$9,812.85	\$10,916.28	\$12,351.84	\$13,805.81

A statewide population growth rate creates a less aggressive forecast. Again using the reported expenditure projection for the first 5-year increment, the forecast is calculated using the rate of population growth between the last years in each time period. As an example, the growth factor used to calculate the 2027-28 to 2031-32 estimate is the population growth between the statewide population projections for calendar years 2027 and 2032.¹⁰ Using this methodology, the 20-year project expenditure total grows to \$41.95 billion.

Table 5.1.13 Project Expenditure Forecast with Population Growth Rate

		Population Growth Factor for:			
		2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	
		1.0529	1.0394	1.0305	
		Reported	Grown at Same Rate as Population		
Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Counties	\$3,916.71	\$4,123.98	\$4,286.47	\$4,417.34
	Municipalities	\$3,852.13	\$4,055.99	\$4,215.79	\$4,344.51
Inland	Counties	\$608.25	\$640.44	\$665.67	\$685.99
	Municipalities	\$1,113.85	\$1,172.80	\$1,219.01	\$1,256.23
	Districts (All)	\$321.90	\$338.93	\$352.29	\$363.04
Statewide Total		\$9,812.85	\$10,332.14	\$10,739.23	\$11,067.12

Both of these projections, which increase the project expenditures by billions, discount the fact that infrastructure expenditures can jump and fall as major capital investments begin and end. Though the reported capital expenditures shrink over the 20-year forecast, smooth growth would

¹⁰ EDR, Population: 1970-2050, based on the 2022 estimates adopted by the Demographic Estimating Conference, February 2023, available at: http://edr.state.fl.us/Content/population-demographics/data/CountyPopulation_2022.pdf. (Accessed February 2024.)

discount the major initiatives many local governments did include on their needs analyses. Instead of basing a statewide forecast solely on the first 5-year increment and a growth rate, the shape of the statewide forecast should reflect the reported expenditures.

Where a statewide perspective is important for legislative purposes, an adjustment to take into account the non-responding local governments is appropriate. This estimate is undoubtedly still low, but it does reflect the priorities each type of local government reported. For all years, the adjusted total project expenditure estimate is \$29.68 billion.

Table 5.1.14 Project Expenditure Projections, Reported and Total Population (in \$millions)

Location	Local Government Type	Project Expenditure Projections				Multiplication Factor
		2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	
Coastal	County	\$3,916.71	\$3,147.65	\$2,756.16	\$3,187.02	1.00882281
	Municipality	\$3,852.13	\$2,588.09	\$1,849.11	\$2,078.86	1.09502006
Inland	County	\$608.25	\$354.30	\$292.34	\$51.10	1.08365194
	Municipality	\$1,113.85	\$700.37	\$464.15	\$391.76	1.12851316
	District (All)	\$321.90	\$154.22	\$141.49	\$155.51	None
	Statewide Total	\$9,812.85	\$6,944.63	\$5,503.25	\$5,864.24	

Location	Local Government Type	Project Expenditure Projections (Adjusted for Full Population)				20-Year Total
		2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	
Coastal	County	\$3,951.27	\$3,175.42	\$2,780.48	\$3,215.14	\$13,122.31
	Municipality	\$4,218.16	\$2,834.01	\$2,024.81	\$2,276.39	\$11,353.38
Inland	County	\$659.13	\$383.93	\$316.79	\$55.38	\$1,415.23
	Municipality	\$1,257.00	\$790.38	\$523.80	\$442.11	\$3,013.28
	District (All)	\$321.90	\$154.22	\$141.49	\$155.51	\$773.11
	Statewide Total	\$10,407.47	\$7,337.97	\$5,787.37	\$6,144.52	\$29,677.32

Table 5.1.15 displays the same forecast, broken down by project type instead of government type and location.

[See table on following page]

Table 5.1.15 Project Expenditure Projections by Project Type for Total Population (in \$millions)

Project Type	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Flood Protection	\$1,887.44	\$658.19	\$452.34	\$471.46	\$1,607.75	\$1,849.54	\$1,296.95	\$1,271.11
Water Quality	\$877.78	\$354.60	\$207.29	\$146.93	\$1,032.36	\$1,584.06	\$1,114.59	\$996.12
Resiliency	\$1,524.29	\$257.87	\$129.07	\$129.62	\$1,959.47	\$1,260.14	\$1,162.24	\$1,643.30
End of Useful Life	\$608.27	\$355.21	\$371.46	\$406.80	\$910.11	\$1,018.35	\$1,053.43	\$1,079.18
Total	\$4,897.78	\$1,625.88	\$1,160.16	\$1,154.81	\$5,509.68	\$5,712.09	\$4,627.21	\$4,989.71

Project Type	Total				20-Year Total	Percent of Total Projects
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42		
Flood Protection	\$3,495.19	\$2,507.73	\$1,749.30	\$1,742.57	\$9,494.79	32.0%
Water Quality	\$1,910.13	\$1,938.67	\$1,321.88	\$1,143.05	\$6,313.73	21.3%
Resiliency	\$3,483.76	\$1,518.01	\$1,291.32	\$1,772.91	\$8,066.00	27.2%
End of Useful Life	\$1,518.38	\$1,373.56	\$1,424.88	\$1,485.98	\$5,802.80	19.6%
Total	\$10,407.47	\$7,337.97	\$5,787.37	\$6,144.52	\$29,677.32	100%

The final section of the stormwater needs analyses focused on the funding gap calculated from projects with no identified funding source. Local governments were asked to list strategies to close any funding gap and estimate the revenues which could be raised using that strategy. Table 5.1.16, aggregates the new revenues local governments proposed, grouped into types assigned by EDR based on the description. While separately identified from other state and federal funding, the potential revenues identified as “Grants” may also originate from state or federal sources.

[See table on following page]

Table 5.1.16 Strategies to Close Funding Gaps (in \$millions)

	Strategy Type (based on description)	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Grants & Loans	Grants	\$116.84	\$126.33	\$135.20	\$130.78	\$509.15
	Debt	\$172.94	\$70.74	\$41.47	\$6.69	\$291.84
	Grants and/or Debt	\$28.50	\$23.55	\$19.10	\$13.20	\$84.35
	Cost Shares	\$3.85	\$8.86	\$7.44	\$9.05	\$29.21
Governmental Funding	Legislative Appropriations	\$7.23	\$11.65	\$7.04	\$7.53	\$33.45
	State & Federal (Non-Grant) Funding	\$17.66	\$42.56	\$42.20	\$42.22	\$144.64
Local Funding Sources	Local Government Funding	\$11.70	\$19.34	\$48.41	\$33.29	\$112.74
	Discretionary Sales Tax	\$32.69	\$8.20	\$8.40	\$8.60	\$57.89
	Assessments*	\$13.32	\$13.23	\$8.24	\$8.26	\$43.05
	Fees or Stormwater Rate Increases*	\$0.00	\$80.00	\$100.00	\$100.00	\$280.00
	Utility*	\$8.15	\$9.71	\$9.76	\$9.82	\$37.44
	Development Agreement**	\$0.05	\$0.00	\$0.00	\$0.00	\$0.05
Other	Multiple or Unknown Types***	\$143.69	\$34.79	\$47.69	\$58.48	\$284.66
	Strategy Totals	\$556.61	\$448.95	\$474.96	\$427.93	\$1,908.45

* The Utility category includes strategies with the names “Stormwater Utility” or “Potential Stormwater Utility.” Many of the Assessments or Fees or Stormwater Rate Increases strategy descriptions mention an existing stormwater utility, but specify an assessment, fee, or rate increase.

** Zero indicates revenues that round to less than \$1 million, while “\$ -” indicates no revenues at all.

*** Strategies assigned the Unknown label have vague descriptions (“Vulnerability,” “Future Project Funding,” *e.g.*). Strategies with multiple types list two or more types, for example “Requesting future state and federal grants and appropriations as opportunities become available, and planned increases in Stormwater Utility Fees as needed to cover gaps.”

All told, approximately ten percent of the reported funding gap (among all jurisdictions) is erased by the estimated revenues raised by the strategies, with over a quarter of these additional revenues covered by grant funding (at a minimum, as possible grant funding also accounts for some of the strategies with multiple types and at least some of the Grants and/or Debt type).

Not all jurisdictions that reported future expenditures with no identified funding source were able to list strategies and estimate revenues to close that funding gap. Some respondents reported that the formulas calculating the funding gap were broken and underreporting the funding gap or not calculating it at all. In the cases where a gap did exist and no strategies were offered, EDR assumes that at least some of those jurisdictions would have submitted (more) strategies and revenue estimates if the gap had been calculated correctly. Additionally, while the employees filling out these templates are experts in the needs of their jurisdictions, they may not be experts for (or may not be comfortable with) strategizing new revenue sources in a report for the legislature.

Of the 265 jurisdictions with any projects categorized as having no identified funding source, 107 jurisdictions reported strategies and potential revenues to close that funding gap. Of particular interest, four additional jurisdictions with strategies listed did not report a funding gap. Among the 107 jurisdictions that reported both a funding gap and proposed new revenues, approximately one-third of local governments either completely closed their funding gap with the estimated revenues

or exceeded the gap total with the proposed revenues. Table 5.1.17’s funding gap is limited to only the 107 local governments that reported both a funding gap and a new revenue estimate. For the submissions whose strategies exceeded a funding gap, the surplus revenue is not included in the Proposed Revenues field.

Table 5.1.17 Funding Gap Totals for Local Governments that Proposed New Revenues

Location	Local Government Type	Funding Gap Total	Proposed Revenues	Remaining Gap	Percent of Gap Closed
Coastal	Counties	\$933.73	\$351.94	\$581.79	37.7%
	Municipalities	\$2,665.75	\$1,213.37	\$1,452.38	45.5%
Inland	Counties	\$180.12	\$46.43	\$133.69	25.8%
	Municipalities	\$519.31	\$185.22	\$334.09	35.7%
Districts (All)		\$224.74	\$57.17	\$167.57	25.4%
Statewide Total		\$4,523.65	\$1,854.13	\$2,669.52	41.0%

Across the 20-year horizon, the strategies remain fairly consistent. The funding gap, by contrast, jumps between the first and second 5-year increments due to the increased reliance on projects with no identified funding source.

Table 5.1.18 Funding Gap for Local Governments that Proposed New Revenues

	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Funding Gap	\$999.49	\$1,507.22	\$1,015.43	\$1,001.51	\$4,523.65
Proposed Revenues	\$506.93	\$452.89	\$471.05	\$423.26	\$1,854.13
Remaining Gap	\$492.56	\$1,054.33	\$544.37	\$578.26	\$2,669.52
Percent of Gap Closed	50.7%	30.0%	46.4%	42.3%	41.0%

Of the 265 local governments that expect a funding gap in the next 20 years, 158 did not propose a strategy with a revenue estimate. If those entities did not propose any revenues due to the problems with EDR’s template and would have followed the same pattern of proposed revenues, Florida’s projected stormwater funding gap would fall 41 percent to \$11.68 billion.

Stormwater Conclusion

In the next 20 years, Florida’s local governments will face a monumental challenge in managing stormwater. This endeavor will require increased and longer-term planning and huge amounts of cooperation between governments at the local, regional, and state level. Even with the relatively short-term planning ability that many local governments have today, local governments that submitted stormwater management needs analyses expect to spend \$20.22 billion for O&M and \$28.13 for project expenditures over the next 20 years. Table 5.1.19 adjusts those needs for

Florida’s full population, showing an estimated total of \$51.29 billion will be needed.¹¹ While there is a significant portion of that sum that has no identified funding source, local governments are working to close that funding gap.

Table 5.1.19 All Expenditures, Reported and Total Population

Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	Multiplication Factor
Coastal	Counties	\$5,163.84	\$4,505.09	\$4,295.26	\$4,878.89	1.00882281
	Municipalities	\$5,596.74	\$4,566.75	\$4,117.90	\$4,674.01	1.09502006
Inland	Counties	\$751.62	\$516.42	\$468.14	\$245.41	1.08365194
	Municipalities	\$1,899.91	\$1,581.16	\$1,434.15	\$1,453.10	1.12851316
	Districts (All)	\$629.31	\$486.86	\$512.31	\$569.85	None
	Statewide Total	\$14,041.42	\$11,656.27	\$10,827.75	\$11,821.26	

		O&M and Project Expenditure Projections (Full Population)				
Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Coastal	Counties	\$5,209.40	\$4,544.83	\$4,333.15	\$4,921.94	\$19,009.33
	Municipalities	\$6,128.54	\$5,000.68	\$4,509.18	\$5,118.14	\$20,756.54
Inland	Counties	\$814.49	\$559.62	\$507.30	\$265.94	\$2,147.35
	Municipalities	\$2,144.07	\$1,784.36	\$1,618.45	\$1,639.85	\$7,186.73
	Districts (All)	\$629.31	\$486.86	\$512.31	\$569.85	\$2,198.33
	Statewide Total	\$14,925.82	\$12,376.35	\$11,480.40	\$12,515.71	\$51,298.28

Further examination of the stormwater management needs analyses allowed for more precise data and reaffirmed the need for EDR to revise the needs analysis template before 2027. While important to Florida’s future, development of the first 20-year needs analyses took a monumental effort from Florida’s counties, municipalities, and special districts. Their willingness to work with EDR is much appreciated and their professional judgement of future needs presents a statewide picture that is far more comprehensive and detailed than previously available to policymakers.

5.2 Wastewater Services 20-Year Needs Analysis

As with stormwater, the other major statewide 20-year needs analysis for wastewater is the EPA’s Clean Watersheds Needs Survey (CWNS). The most recently completed survey, from 2012, estimated approximately \$17.9 billion for various aspects of wastewater services, as well as \$5.6 billion needed for decentralized wastewater treatment systems.¹² Adjusted to Fiscal Year 2022-23 dollars using the *Engineering News-Record’s* Construction Cost Index, the official wastewater needs total for Florida’s publicly owned treatment works is \$25.8 billion, with an additional \$9.8

¹¹ This is a 6.5 percent increase over the submitted expenditure projections. Non-responding counties and municipalities were often low population areas, including 18 fiscally constrained counties.

¹² EPA, Clean Watersheds Needs Survey 2012, Florida database, <https://ordspub.epa.gov/ords/cwms2012/f?p=134:25:>. (Accessed January 2023.)

billion for decentralized wastewater treatment. (See table 5.0.1 for individual categories and the inflation adjustments.)

Using the reports submitted by local governments, EDR’s 20-year needs analysis includes \$62.29 billion in wastewater utility expenditures for projects, as well as \$77.24 billion in O&M expenditures. Additionally, a minimum of just over \$800 million is needed from customers for septic-to-sewer projects.

Table 5.2.1 Reported Wastewater Services Expenditure Projection Totals (in \$millions)

Wastewater Expenditures	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	Total
O&M	\$15,310.63	\$17,574.20	\$20,420.69	\$23,936.59	\$77,242.10
Expansion / Improvement*	\$23,102.38	\$12,901.97	\$15,608.26	\$10,674.06	\$62,286.68
Total	\$38,413.01	\$30,476.17	\$36,028.95	\$34,610.65	\$139,528.78

* Note: This is the estimated project expenditure total, including projects that have a committed funding source and those that have no identified funding source. It does not include customer expenditures.

Like the discussion of stormwater management, the wastewater services analysis will review the reported programs and inventory, then delve into expenditure estimates. The wastewater services dataset has also undergone a more thorough review. The wastewater services dataset’s changes include the removal of three duplicated submissions, correction of governmental types (*e.g.*, a special district is no longer misclassified as a municipality), and the correction of erroneously scaled estimates.¹³ The classification of municipalities as either “coastal” or “inland” is now based on the municipality’s proximity to the coastline and not whether the county in which the municipality is located has a coastline. The data in this report supersedes the previously published information.

Wastewater Programs and Inventory

Among the wastewater utilities in the dataset, 85 report that they collect wastewater but do not treat it, and 23 reported they have some treatment capacity but are also wholesale customers of another utility. For example, the Palm Beach County Water Utilities Department states that it sends a “[p]ortion of wastewater collected in the Eastern system” to the City of West Palm Beach’s East Central Regional Water Reclamation Facility. Other utilities stated that they have an active contract with another utility for treatment capacity for emergencies but barring an emergency they treat all of their own wastewater. As a single utility may have contracts with multiple wholesale customers, not all utilities report having wholesale treatment customers. Table 5.2.2 shows the number of utilities that collect and treat or collect only, as well as the number of those that serve wholesale customers. The priorities and expenditures for jurisdictions that only collect wastewater are vastly different than those that treat also wastewater.

¹³ In the previous edition the wastewater O&M projections for the Central Florida Tourism Oversight District (submitted as the Reedy Creek Improvement District) were divided by 1,000 under the assumption that the district reported their projections in dollars instead of thousands of dollars. This has been corrected.

Table 5.2.2 Collection & Treatment Utility Counts by Government Type

Local Government Type	Collection & Treatment			Serve Wholesale Customers	
	Yes, Treat All	Yes, Treat Some	Collect Only	Yes	No
County	25	10	1	13	23
Municipality	112	10	66	32	156
District	28	3	18	7	42
Total	165	23	85	52	221

Among the 188 utilities that treat wastewater, there are 362 treatment facilities in operation with ten additional facilities under construction. Across the state, the wastewater treatment facilities in operation have a total design capacity of 3,761.88 MGD. Because treatment facilities are designed to handle more than the permitted or actual average daily flow of wastewater, the total permitted average daily flow was 3,301.83 MGD, or 88 percent of the design capacity. The actual average daily flow of 1,819.48 MGD is well within the permitted capacity.

These numbers do not mean that the current treatment capacity is necessarily enough. These averages are annual, so in areas with a large non-permanent population, the average daily flow during peak tourist seasons could be much higher. Additionally, as more utilities pursue septic-to-sewer conversion projects, the volume of wastewater needing treatment will rise, even if a utility’s service area or a jurisdiction’s population stays stable.

Utilities were asked to estimate the percentage of the permanent population in their service area that fell within three categories: connected to their system, “available for connection” but not connected (*e.g.*, a residence has a collection main in an easement or abutting the property line but the resident is still using a septic system), and not able to connect. Of the utilities that completed this section of the needs analysis, 74 reported that they served 100 percent of permanent residents within their service area. A further 170 reported that they were not completely connected. The average percent of residents in each category is shown in table 5.2.3, separated by whether the local government is coastal or inland.

Table 5.2.3 Estimate of Permanent Residents Connected to Collection System within Service Area

Local Government Type	Completely Connected	Not Completely Connected	Estimated Average Percentage of Residents		
			Connected	Able to Connect	Not Able to Connect
Inland	25	84	72.4%	6.8%	20.8%
Coastal	49	86	80.6%	4.7%	14.7%
Total	74	170	76.5%	5.7%	17.7%

Inland jurisdictions are less likely to be completely built out. For those residents not connected to the system, a larger proportion are likely to be either too far away to connect easily or able to connect but, for whatever reason, have chosen not to. Reasons for this could include the timing of the development (both the installation of the sewer main and the residence construction), lack of

a local ordinance requiring connection, or a prohibitively expensive connection cost (*e.g.*, larger lot sizes in non-coastal jurisdictions might increase the initial investment for the customer).

Local governments reported over fifty thousand lift stations and 1.1 million manholes connected to nearly seventy-five thousand miles of wastewater collection mains. The following two tables contain the same data, aggregated by DEP district¹⁴ in table 5.2.5 and grouped by location and government type in table 5.2.6.

Table 5.2.5 Collection System Assets by DEP District

DEP District	Lift Stations		Manholes	Valves
	Utility Owned	Privately Owned		
Northeast District	3,156	4,073	130,970	21,407
Northwest District	1,453	1,963	66,574	7,781
Central District	5,572	3,495	218,227	14,955
Southeast District	7,245	3,071	324,090	43,545
South District	6,533	2,640	113,908	19,091
Southwest District	5,641	5,888	253,352	29,337
Multiple	84	0	1,127	63
Total	29,684	21,130	1,108,248	136,178

Table 5.2.6 Collection System Assets by Location and Government Type

Location	Local Government Type	Lift Stations		Manholes	Valves
		Utility Owned	Privately Owned		
Coastal	County	11,579	9,251	433,960	66,336
	Municipality	6,091	5,092	268,214	34,594
	District*	3,799	2,219	63,702	10,109
Inland	County	1,752	1,306	67,126	5,487
	Municipality	5,334	2,390	227,160	16,056
	District*	1,129	872	48,086	3,596
Statewide		29,684	21,130	1,108,248	136,178

* Districts are classified as Coastal or Inland based on the county in which they are located.

Table 5.2.7, Wastewater Mains by DEP District, contains the linear miles of gravity mains and force mains reported. Though not all local governments reported the linear feet of their collection mains, four jurisdictions reported owning no gravity mains at all, favoring or only using force mains. Depending on the local topography and size of the service area, gravity mains can be more

¹⁴ The Northwest District contains Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, and Washington Counties. The Northeast District is comprised of Alachua, Baker, Bradford, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Lafayette, Levy, Madison, Nassau, Putnam, St. Johns, Suwannee, Taylor, and Union Counties. The Central District has Brevard, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia Counties. DEP’s Southwest District contains Citrus, Hardee, Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Polk Counties. The Southeast District contains Broward, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Palm Beach, and St. Lucie Counties. The South District has Charlotte, Collier, DeSoto, Glades, Hendry, Highlands, Lee, and Sarasota Counties. A map is available from DEP at: <https://floridadep.gov/districts>. (Accessed February 2024.)

expensive than low pressure force mains or a vacuum system. Linear feet have been converted to miles. Table 5.2.8 presents the totals by location and government type.

Table 5.2.7 Wastewater Mains by DEP District

DEP District	Linear Miles	
	Gravity Mains	Force Mains
Northeast District	5,248.7	2,493.9
Northwest District	2,985.3	1,154.5
Central District	9,401.9	3,649.1
Southeast District	13,139.4	4,880.7
South District	5,299.7	2,621.5
Southwest District	19,488.1	3,943.8
Multiple	23.4	13.3
Total	55,586.4	18,756.7

Table 5.2.8 Wastewater Mains by Location and Government Type

Location	Local Government Type	Linear Miles	
		Gravity Mains	Force Mains
Coastal	County	26,496.74	8,231.64
	Municipality	12,259.64	4,169.08
	District*	2,626.35	1,237.95
Inland	County	2,723.47	1,221.12
	Municipality	9,654.66	3,140.24
	District*	1,825.53	756.68
Statewide		55,586.39	18,756.72

* Districts are classified as Coastal or Inland based on the county in which they are located.

Wastewater Expenditures and Projections

Like with the stormwater projections, basic operation and maintenance expenditures were reported separately from capital improvement, or expansion, expenditures. Local governments were asked to incorporate an adjustment for projected inflation into their forecasts and to aggregate their expenditure projections into totals for 5-year increments. The template guidance specified that for expenditure projections, respondents were to assume that O&M expenditures would be fully funded before any additional capital expenditures. Project, or capital improvement, expenditures were classified in three ways: project category, subcategory, and funding source type. The six wastewater project categories were Effluent Management, Water Quality, Resiliency, Reuse Development, End of Useful Life Replacement, and Septic to Sewer Conversions. Except for the last category, each project category had four to six subcategories. The two main funding source types were “committed funding source” and “no identified funding source.” Septic to Sewer Conversion projects had a third category option: “customer expenditures.”

Table 5.2.9, Reported O&M Projections (in \$millions), contains the O&M projections by coastal proximity and local government type. As with stormwater, all future O&M projections were assumed to be covered by committed funding sources. The total O&M estimate is \$77.24 billion, which exceeds the project expenditure total (both committed and no identified funding sources).

According to the optional comments in the field provided to explain any growth over 15 percent over each 5-year increment, annual growth rates range from 2.9 percent to 8 percent. Areas of high expenditure growth were attributed to the current inflationary environment, new treatment facilities, larger service areas, and higher personnel expenditures.

Table 5.2.9 Reported O&M Projections (in \$millions)

Location	Local Government Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Coastal	County	\$6,875.84	\$7,983.53	\$9,490.68	\$10,841.42	\$35,191.48
	Municipality	\$3,769.69	\$4,259.61	\$4,848.58	\$5,519.87	\$18,397.75
	District	\$599.25	\$699.92	\$788.96	\$897.15	\$2,985.28
Inland	County	\$759.66	\$850.65	\$957.30	\$1,078.48	\$3,646.09
	Municipality	\$2,913.62	\$3,288.03	\$3,712.30	\$4,805.73	\$14,719.68
	District	\$392.55	\$492.46	\$622.87	\$793.94	\$2,301.82
Statewide		\$15,310.63	\$17,574.20	\$20,420.69	\$23,936.59	\$77,242.10

In contrast to the statewide stormwater expenditure estimate, the wastewater projections will not be expanded into a statewide estimate by population. Because a significant number of residents rely on onsite sewage treatment and disposal systems (*i.e.*, septic tanks) or are served by private wastewater utilities, not every county, municipality, or special district directly provides wastewater services.

In the previously published estimates, projects with blank or inaccurate categories caused some aggregates to differ slightly depending on the filtering selection. For example, a project with a blank funding source type would not be included when adding together committed and no identified funding source estimates, but that project’s cost would be included in aggregates by project type. These discrepancies have now been corrected in the dataset:

- Projects with an inappropriate funding type (blank, customer expenditures for non-septic to sewer category projects) are considered ‘no identified funding source.’
- Projects assigned a subcategory that was not one of the options for the assigned category kept the assigned category and were given the subcategory “other.”
- One project that was not assigned a category, subcategory, or funding type was removed from the dataset.

In addition to O&M costs, the other major category of future expenditures is capital improvement, which in EDR’s template was referred to as expansion. Table 5.2.10, Reported Expenditures by Project Type and Funding Source (in \$millions), shows projected local government expenditures for the six project types for projects with a committed funding source and for those with no identified funding source.

Table 5.2.10 Reported Expenditures by Project Type and Funding Source (in \$millions)

Project Category	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Effluent Management	\$2,647.63	\$779.38	\$545.51	\$449.38	\$956.01	\$2,336.65	\$1,382.84	\$896.08
Water Quality	\$3,659.95	\$630.84	\$661.75	\$248.00	\$795.56	\$845.35	\$778.78	\$425.82
Resiliency	\$2,033.26	\$451.62	\$286.03	\$341.94	\$434.22	\$336.51	\$1,764.76	\$501.04
Reuse Development	\$1,271.83	\$527.19	\$373.91	\$282.02	\$392.76	\$363.70	\$463.95	\$360.78
End of Useful Life								
Replacement	\$6,394.82	\$3,101.90	\$2,674.60	\$2,906.30	\$1,394.63	\$1,490.17	\$4,546.02	\$2,540.55
Septic to Sewer Conversions	\$1,530.18	\$314.00	\$248.37	\$202.06	\$1,591.51	\$1,724.67	\$1,881.76	\$1,520.10
Total	\$17,537.68	\$5,804.92	\$4,790.16	\$4,429.69	\$5,564.71	\$7,097.05	\$10,818.09	\$6,244.37

Project Category	Committed + No Identified Funding Source					
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total	Percent of Total
Effluent Management	\$3,603.64	\$3,116.02	\$1,928.34	\$1,345.46	\$9,993.47	16.0%
Water Quality	\$4,455.52	\$1,476.19	\$1,440.53	\$673.82	\$8,046.05	12.9%
Resiliency	\$2,467.48	\$788.13	\$2,050.79	\$842.99	\$6,149.39	9.9%
Reuse Development	\$1,664.60	\$890.89	\$837.86	\$642.79	\$4,036.14	6.5%
End of Useful Life						
Replacement	\$7,789.45	\$4,592.06	\$7,220.62	\$5,446.85	\$25,048.98	40.2%
Septic to Sewer Conversions	\$3,121.69	\$2,038.67	\$2,130.13	\$1,722.15	\$9,012.65	14.5%
Total	\$23,102.38	\$12,901.97	\$15,608.26	\$10,674.06	\$62,286.68	100.0%

A major difference between the stormwater projections and the wastewater data is the fact that a (slight) majority of the wastewater project expenditures has a committed funding source, as seen in table 5.2.11, Funding Source by Project Type. Septic to Sewer Conversions are much more likely to have no identified funding source, in particular after the first 5-year increment. During the first period, Septic to Sewer expenditures are split almost in half between funding source types, but shift abruptly to having no committed funding source for approximately 85 to 88 percent of the expenditures. Further, these expenditure estimates exclude any estimated customer expenditures.

[See table on following page]

Table 5.2.11 Funding Source by Project Type

Project Category	Committed Funding Source	No Identified Funding Source
Effluent Management	44.2%	55.8%
Water Quality	64.6%	35.4%
Resiliency	50.6%	49.4%
Reuse Development	60.8%	39.2%
End of Useful Life Replacement	60.2%	39.8%
Septic to Sewer Conversions	25.5%	74.5%
Total	52.3%	47.7%

Overall, expenditures with a committed funding source are significant (52.3 percent of all project expenditures over 20 years) and heavily front loaded (53.9 percent occur within the first 5-year increment). Table 5.2.12 shows the proportion of expenditures from each source for each increment, while Figures 5.2.1 and 5.2.2 illustrate just how concentrated committed funding source spending is to the first five years.

Table 5.2.12 Funding source Percent of Project Expenditures by 5-Year Increment

5-Year Increment	Committed Funding Source	No Identified Funding Source
2022-23 to 2026-27	75.9%	24.1%
2027-28 to 2031-32	45.0%	55.0%
2032-33 to 2036-37	30.7%	69.3%
2037-38 to 2041-42	41.5%	58.5%
20-Year Total	52.3%	47.7%

Figure 5.2.1 Timing of Projects with a Committed Funding Source by Project Type

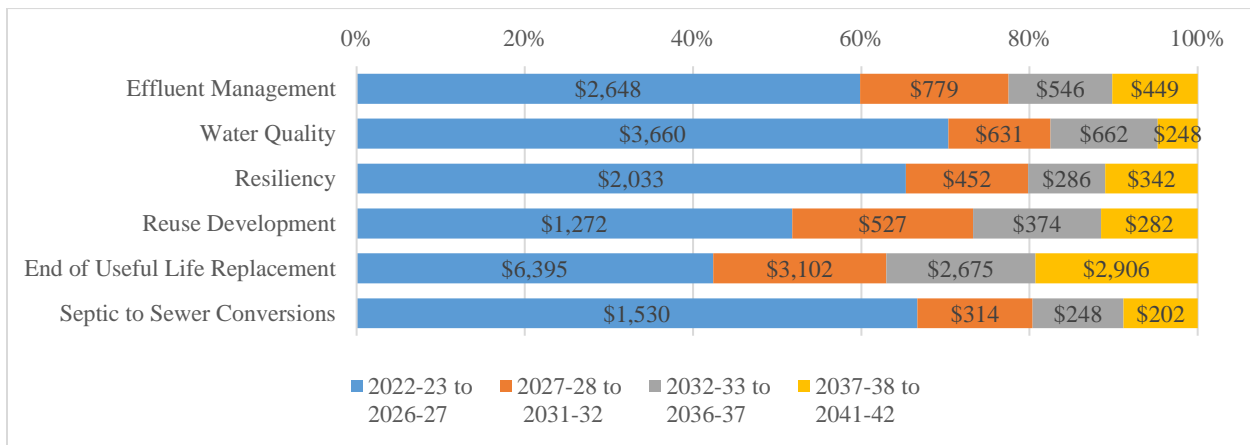
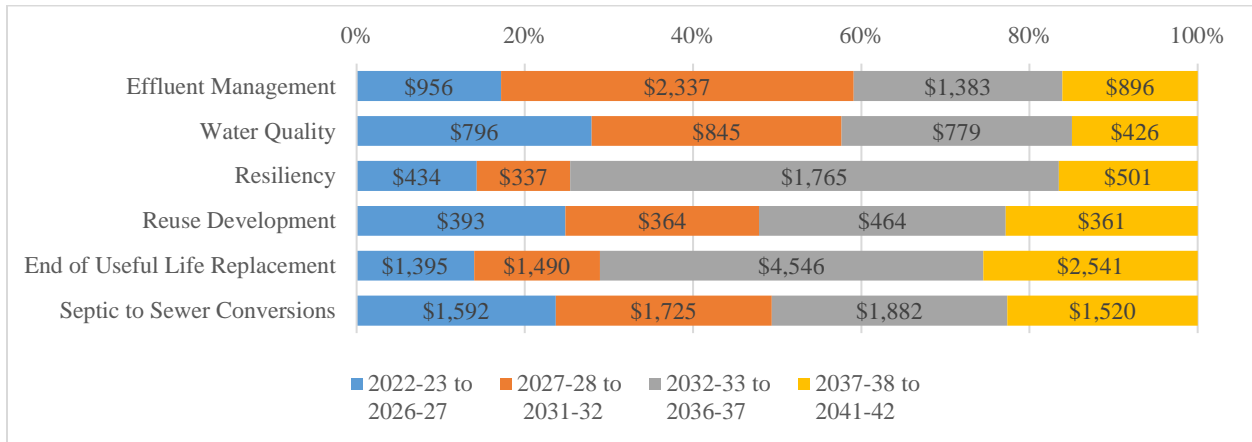


Figure 5.2.2 Timing of Projects with No Identified Funding Source by Project Type



Even though EDR’s needs analysis had more lenient documentation standards than the EPA’s CWNS survey, the fluctuations in reported projected expenditures between 5-year increments may suggest that projections become less accurate after the immediate forecast. This section replicates the two alternative methodologies used in section 5.1 to adjust for decreasing expenditures throughout that forecast. Using the reported project expenditures in the first 5-year increment, one methodology applies the O&M growth rate and the other methodology applies a population growth rate to estimate a total 20-year expenditure forecast.

The growth in table 5.1.13 is based on the change in the O&M forecast between 5-year increments. Project expenditures, both with a committed funding source and with no identified funding source, are the reported totals in the 2022-23 to 2026-27 field. The rest of the forecast is calculated by applying the O&M growth factor to the preceding increment, raising the 20-year project expenditure total from \$62.29 billion to \$116.55 billion.

Table 5.2.13 Project Expenditure Forecast based on O&M Growth Rate (in \$millions)

		O&M Growth Factor for:			
		2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	
		1.1478	1.1620	1.1722	
	Reported	Grown at Statewide O&M Growth Rate			
Project Expenditures	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Statewide Total	\$23,102.38	\$26,517.91	\$30,813.01	\$36,118.19	\$116,551.50

A statewide population growth rate creates a less aggressive forecast. Again using the reported expenditure projection for the first 5-year increment, the forecast is calculated using the rate of population growth between the last years in each time period. As an example, the growth factor used to calculate the 2027-28 to 2031-32 estimate is the population growth between the statewide

population projections for calendar years 2027 and 2032.¹⁵ This raises the 20-year project expenditure total from \$62.29 billion to \$98.77 billion.

Table 5.2.14 Project Expenditure Forecast based on Population Growth Rate (in \$millions)

						Population Growth Factor for:		
						2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
						1.0529	1.0394	1.0305
		Reported	Grown at Statewide Population Rate					
Project Expenditures	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total			
Statewide Total	\$23,102.38	\$24,324.94	\$25,283.36	\$26,055.30	\$98,765.99			

These methodologies were questioned for the stormwater forecast, but are even less reliable for the wastewater forecast. Overall, stormwater projections fell from 5-year increment to 5-year increment, with only slight growth in some areas. The wastewater expenditure forecast, on the other hand, contains a huge increase between the second and third increments, indicating local governments recorded specific project expenditures in specific increments, and applying a steady growth rate undermines that. For these reasons, an adjustment factor to address missing wastewater respondents is not recommended.

Returning to the reported project expenditure forecast, table 5.2.15 and Figure 5.2.1 divide projected expenditures by proximity to a coastline. Though special districts within coastal counties are all considered coastal, municipalities were grouped by their actual location.

[See table on following page]

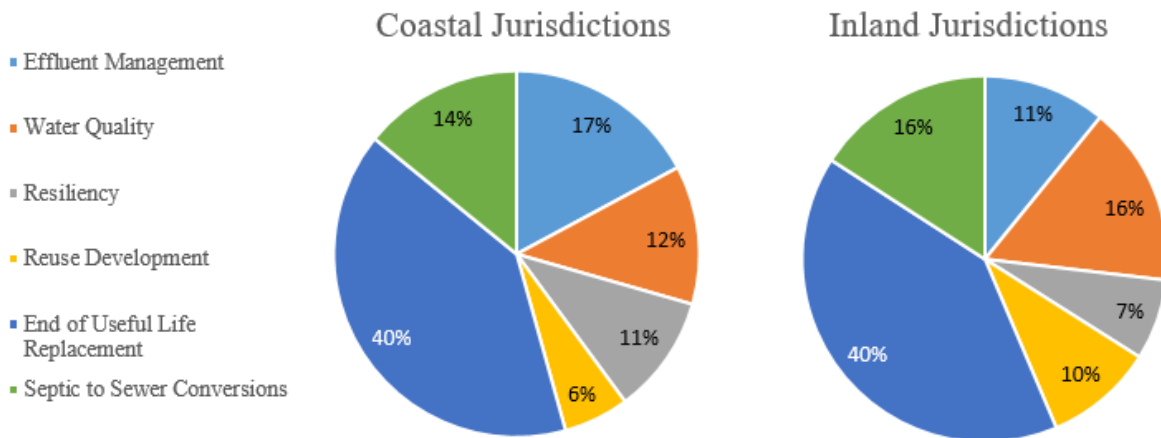
¹⁵ EDR, Population: 1970-2050, based on the 2022 estimates adopted by the Demographic Estimating Conference, February 2023, available at: http://edr.state.fl.us/Content/population-demographics/data/CountyPopulation_2022.pdf. (Accessed February 2024.)

Table 5.2.15 Reported Inland and Coastal Project Expenditures by Funding Source and Project Type (in \$Millions)

Location	Project Type	Committed Funding Source				No Identified Funding Source			
		2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Effluent Management	\$2,279.65	\$634.77	\$442.01	\$394.05	\$805.07	\$2,203.72	\$1,264.80	\$761.41
	Water Quality	\$2,912.44	\$465.37	\$463.69	\$117.06	\$672.49	\$696.80	\$588.34	\$357.52
	Resiliency	\$1,873.56	\$373.74	\$205.94	\$258.57	\$294.74	\$225.58	\$1,691.96	\$432.56
	Reuse Development	\$904.63	\$447.27	\$229.81	\$209.87	\$305.35	\$307.91	\$363.67	\$196.68
	End of Useful Life Replacement	\$5,142.42	\$2,425.41	\$2,080.10	\$2,247.02	\$1,056.11	\$1,061.88	\$4,278.20	\$2,261.19
	Septic to Sewer Conversions	\$1,201.09	\$155.34	\$129.63	\$113.66	\$1,317.38	\$1,443.99	\$1,590.13	\$1,295.34
	Coastal Total	\$14,313.78	\$4,501.90	\$3,551.18	\$3,340.22	\$4,451.15	\$5,939.89	\$9,777.10	\$5,304.70
Inland	Effluent Management	\$367.98	\$144.60	\$103.50	\$55.33	\$150.94	\$132.92	\$118.04	\$134.67
	Water Quality	\$747.51	\$165.46	\$198.06	\$130.94	\$123.07	\$148.56	\$190.44	\$68.31
	Resiliency	\$159.70	\$77.88	\$80.08	\$83.37	\$139.49	\$110.93	\$72.80	\$68.49
	Reuse Development	\$367.21	\$79.93	\$144.10	\$72.14	\$87.41	\$55.78	\$100.28	\$164.10
	End of Useful Life Replacement	\$1,252.40	\$676.49	\$594.51	\$659.29	\$338.52	\$428.28	\$267.81	\$279.36
	Septic to Sewer Conversions	\$329.09	\$158.66	\$118.73	\$88.40	\$274.13	\$280.68	\$291.63	\$224.76
	Inland Total	\$3,223.89	\$1,303.03	\$1,238.98	\$1,089.47	\$1,113.56	\$1,157.16	\$1,041.00	\$939.68

Notably, inland and coastal jurisdictions both expect to devote 40 percent of their expenditures to replace aging infrastructure. Overall, the differences in investment area focus between inland and coastal jurisdictions are fairly small, with the largest percent difference in Effluent Management.

Figure 5.2.3 Percent of Project Expenditures by Coastal Proximity and Project Type



Examining the categories more closely, tables 5.2.16 and 5.2.17 contain each subcategory's total, 20-year, expenditure estimate. Table 5.2.16 aggregates the estimates by DEP District and table 5.2.17 uses government type and coastal proximity. The percentages are calculated by dividing that area and subcategory's investment by the entire category's planned expenditures. In fields with no value, the zero appears as a light grey, while values that round down to zero are formatted normally.

[See tables on following pages]

Table 5.2.16 Project Expenditures for DEP Districts by Project Subcategory

Project Category	Subcategory	DEP District						
		Northeast District	Northwest District	Central District	Southwest District	Southeast District	South District	Multiple*
Effluent Management	s. 403.064(17), F.S. (Surface Water Discharge Elimination)	\$2,229.48	\$25.50	\$125.80	\$87.45	\$245.61	\$141.30	\$0.00
	s. 403.086(10), F.S. (Ocean Outfalls Legislation)	\$0.00	\$0.00	\$0.00	\$0.00	\$1,958.14	\$0.00	\$0.00
	Clean Waterways Act	\$0.00	\$328.39	\$26.88	\$64.44	\$0.80	\$5.76	\$0.00
	2016 Springs And Aquifer Protection Act	\$14.00	\$0.00	\$17.00	\$0.00	\$0.00	\$0.00	\$0.00
	Other	\$931.41	\$374.18	\$862.99	\$1,874.96	\$249.04	\$424.86	\$5.50
Water Quality	Biosolids	\$316.60	\$6.45	\$93.75	\$130.23	\$20.54	\$53.97	\$0.00
	Advanced Wastewater Treatment	\$835.17	\$96.82	\$871.43	\$1,272.51	\$305.20	\$1,980.70	\$0.00
	Surface Water Discharge	\$49.16	\$27.19	\$33.74	\$12.05	\$1.05	\$0.00	\$0.00
	Nutrient Removal	\$16.17	\$53.51	\$179.57	\$235.13	\$55.99	\$19.20	\$0.00
	Other	\$66.67	\$131.91	\$546.03	\$100.76	\$141.47	\$393.12	\$0.00
Resiliency	Severe Storm Impact / Mitigation	\$41.55	\$859.87	\$50.66	\$299.96	\$2,034.15	\$57.97	\$15.00
	Inland Flooding	\$93.45	\$0.00	\$0.00	\$32.78	\$7.48	\$2.96	\$0.00
	Reduce Inflow / Infiltration	\$203.08	\$114.30	\$171.61	\$115.90	\$1,002.67	\$36.74	\$0.00
	Sea Level Rise	\$10.65	\$0.00	\$2.25	\$107.08	\$464.56	\$3.63	\$0.00
	Drought	\$0.00	\$0.00	\$0.00	\$20.08	\$0.00	\$0.00	\$0.00
Reuse Development	Other	\$4.39	\$18.24	\$36.08	\$194.20	\$126.25	\$21.84	\$0.00
	Expansion Of Existing Reuse Systems	\$360.67	\$154.47	\$723.35	\$280.60	\$316.41	\$744.25	\$0.00
	Aquifer Recharge	\$19.52	\$4.00	\$8.00	\$18.48	\$0.00	\$2.60	\$0.00
	Potable Reuse Projects	\$135.59	\$0.00	\$0.00	\$116.66	\$67.59	\$30.44	\$0.00
	Creation Of New Reuse Systems	\$230.74	\$109.77	\$21.96	\$89.15	\$249.50	\$49.96	\$0.00
End of Useful Life Replacement	Other	\$51.56	\$0.30	\$11.89	\$178.87	\$34.96	\$24.85	\$0.00
	Treatment Facility	\$493.72	\$209.99	\$843.85	\$2,363.67	\$4,116.91	\$1,070.44	\$18.31
	Collection System (Pipes)	\$787.83	\$661.04	\$1,135.01	\$2,976.90	\$3,244.71	\$1,123.03	\$9.49
	Lift Station Or Component	\$403.08	\$150.20	\$800.80	\$859.62	\$1,659.47	\$317.09	\$13.54
Septic to Sewer Conversions	Other	\$446.59	\$10.69	\$184.76	\$486.92	\$512.85	\$148.49	\$0.00
	Utility Expenditures	\$1,464.30	\$412.71	\$1,258.87	\$2,078.82	\$1,995.12	\$1,782.83	\$20.00
Total		\$9,205.37	\$3,749.50	\$8,006.27	\$13,997.20	\$18,810.46	\$8,436.03	\$81.83

[Table continued on next page.]

Project Category	Subcategory	DEP District						
		Northeast District	Northwest District	Central District	Southwest District	Southeast District	South District	Multiple*
Effluent Management	s. 403.064(17), F.S. (Surface Water Discharge Elimination)	22%	0%	1%	1%	2%	1%	0%
	s. 403.086(10), F.S. (Ocean Outfalls Legislation)	0%	0%	0%	0%	20%	0%	0%
	Clean Waterways Act	0%	3%	0%	1%	0%	0%	0%
	2016 Springs And Aquifer Protection Act	0%	0%	0%	0%	0%	0%	0%
	Other	9%	4%	9%	19%	2%	4%	0%
Water Quality	Biosolids	4%	0%	1%	2%	0%	1%	0%
	Advanced Wastewater Treatment	10%	1%	11%	16%	4%	25%	0%
	Surface Water Discharge	1%	0%	0%	0%	0%	0%	0%
	Nutrient Removal	0%	1%	2%	3%	1%	0%	0%
	Other	1%	2%	7%	1%	2%	5%	0%
Resiliency	Severe Storm Impact / Mitigation	1%	14%	1%	5%	33%	1%	0%
	Inland Flooding	2%	0%	0%	1%	0%	0%	0%
	Reduce Inflow / Infiltration	3%	2%	3%	2%	16%	1%	0%
	Sea Level Rise	0%	0%	0%	2%	8%	0%	0%
	Drought	0%	0%	0%	0%	0%	0%	0%
Reuse Development	Other	0%	0%	1%	3%	2%	0%	0%
	Expansion Of Existing Reuse Systems	9%	4%	18%	7%	8%	18%	0%
	Aquifer Recharge	0%	0%	0%	0%	0%	0%	0%
	Potable Reuse Projects	3%	0%	0%	3%	2%	1%	0%
	Creation Of New Reuse Systems	6%	3%	1%	2%	6%	1%	0%
End of Useful Life Replacement	Other	1%	0%	0%	4%	1%	1%	0%
	Treatment Facility	2%	1%	3%	9%	16%	4%	0%
	Collection System (Pipes)	3%	3%	5%	12%	13%	4%	0%
	Lift Station Or Component	2%	1%	3%	3%	7%	1%	0%
Septic to Sewer Conversions	Other	2%	0%	1%	2%	2%	1%	0%
	Utility Expenditures	16%	5%	14%	23%	22%	20%	0%

*The "Multiple" column includes submissions which had more than one district listed. These were all utilities operated by the Florida Governmental Utility Authority, which owns utilities in multiple counties.

Table 5.2.17 Project Expenditures for Government Types and Location by Project Subcategory

Project Category	Subcategory	Coastal County	Coastal Municipality	Coastal Districts	Inland County	Inland Municipality	Inland Districts	Statewide
Effluent Management	s. 403.064(17), F.S. (Surface Water Discharge Elimination)	\$2,228.46	\$396.88	\$150.60	\$0.00	\$79.20	\$0.00	\$2,855.13
	s. 403.086(10), F.S. (Ocean Outfalls Legislation)	\$1,830.89	\$120.45	\$0.00	\$0.00	\$6.80	\$0.00	\$1,958.14
	Clean Waterways Act	\$5.25	\$14.95	\$324.39	\$24.47	\$53.21	\$3.99	\$426.26
	2016 Springs And Aquifer Protection Act	\$0.00	\$0.00	\$0.00	\$0.00	\$31.00	\$0.00	\$31.00
	Other	\$2,745.30	\$848.33	\$119.99	\$172.75	\$740.57	\$96.01	\$4,722.94
Water Quality	Biosolids	\$235.13	\$110.56	\$4.15	\$19.90	\$215.55	\$36.25	\$621.53
	Advanced Wastewater Treatment	\$3,290.16	\$1,045.94	\$318.20	\$128.65	\$321.07	\$257.82	\$5,361.83
	Surface Water Discharge	\$30.61	\$19.45	\$0.00	\$0.00	\$73.12	\$0.00	\$123.18
	Nutrient Removal	\$68.78	\$319.15	\$22.65	\$45.15	\$84.67	\$19.15	\$559.55
	Other	\$553.76	\$208.67	\$46.50	\$36.66	\$387.29	\$147.06	\$1,379.96
Resiliency	Severe Storm Impact / Mitigation	\$1,959.25	\$1,235.40	\$49.16	\$6.31	\$91.13	\$17.90	\$3,359.15
	Inland Flooding	\$26.25	\$10.48	\$2.96	\$0.00	\$96.98	\$0.00	\$136.67
	Reduce Inflow / Infiltration	\$506.75	\$780.67	\$54.73	\$2.75	\$267.59	\$31.82	\$1,644.31
	Sea Level Rise	\$463.36	\$108.84	\$2.58	\$0.00	\$13.40	\$0.00	\$588.17
	Drought	\$0.00	\$0.00	\$0.00	\$0.00	\$20.08	\$0.00	\$20.08
	Other	\$58.46	\$73.45	\$24.32	\$18.98	\$225.80	\$0.00	\$401.01
Reuse Development	Expansion Of Existing Reuse Systems	\$642.73	\$1,096.83	\$62.57	\$78.20	\$516.33	\$183.10	\$2,579.76
	Aquifer Recharge	\$18.48	\$11.10	\$0.00	\$3.50	\$19.52	\$0.00	\$52.60
	Potable Reuse Projects	\$2.59	\$200.10	\$12.00	\$0.00	\$101.50	\$34.09	\$350.28
	Creation Of New Reuse Systems	\$453.09	\$104.44	\$73.99	\$4.50	\$80.65	\$34.40	\$751.07
	Other	\$145.45	\$105.53	\$36.30	\$6.13	\$8.04	\$0.99	\$302.43
End of Useful Life Replacement	Treatment Facility	\$4,648.18	\$2,531.80	\$380.97	\$102.97	\$1,285.81	\$167.16	\$9,116.89
	Collection System (Pipes)	\$4,375.62	\$2,813.97	\$998.76	\$81.75	\$1,622.26	\$45.63	\$9,938.00
	Lift Station Or Component	\$1,679.99	\$1,435.77	\$171.90	\$85.07	\$670.14	\$160.94	\$4,203.80
	Other	\$932.00	\$576.08	\$7.29	\$31.29	\$127.03	\$116.60	\$1,790.29
Septic to Sewer Conversions	Utility Expenditures	\$5,678.87	\$1,390.98	\$176.71	\$555.40	\$1,052.12	\$158.57	\$9,012.65
	Total	\$32,579.37	\$15,559.84	\$3,040.71	\$1,404.42	\$8,190.86	\$1,511.49	\$62,286.68

[Table continued on next page.]

Project Category	Subcategory	Coastal County	Coastal Municipality	Coastal Districts	Inland County	Inland Municipality	Inland Districts	Statewide
Effluent Management	s. 403.064(17), F.S. (Surface Water Discharge Elimination)	22%	4%	2%	0%	1%	0%	29%
	s. 403.086(10), F.S. (Ocean Outfalls Legislation)	18%	1%	0%	0%	0%	0%	20%
	Clean Waterways Act	0%	0%	3%	0%	1%	0%	4%
	2016 Springs And Aquifer Protection Act	0%	0%	0%	0%	0%	0%	0%
	Other	27%	8%	1%	2%	7%	1%	47%
Water Quality	Biosolids	3%	1%	0%	0%	3%	0%	8%
	Advanced Wastewater Treatment	41%	13%	4%	2%	4%	3%	67%
	Surface Water Discharge	0%	0%	0%	0%	1%	0%	2%
	Nutrient Removal	1%	4%	0%	1%	1%	0%	7%
	Other	7%	3%	1%	0%	5%	2%	17%
Resiliency	Severe Storm Impact / Mitigation	32%	20%	1%	0%	1%	0%	55%
	Inland Flooding	0%	0%	0%	0%	2%	0%	2%
	Reduce Inflow / Infiltration	8%	13%	1%	0%	4%	1%	27%
	Sea Level Rise	8%	2%	0%	0%	0%	0%	10%
	Drought	0%	0%	0%	0%	0%	0%	0%
	Other	1%	1%	0%	0%	4%	0%	7%
Reuse Development	Expansion Of Existing Reuse Systems	16%	27%	2%	2%	13%	5%	64%
	Aquifer Recharge	0%	0%	0%	0%	0%	0%	1%
	Potable Reuse Projects	0%	5%	0%	0%	3%	1%	9%
	Creation Of New Reuse Systems	11%	3%	2%	0%	2%	1%	19%
	Other	4%	3%	1%	0%	0%	0%	7%
End of Useful Life Replacement	Treatment Facility	19%	10%	2%	0%	5%	1%	36%
	Collection System (Pipes)	17%	11%	4%	0%	6%	0%	40%
	Lift Station Or Component	7%	6%	1%	0%	3%	1%	17%
	Other	4%	2%	0%	0%	1%	0%	7%
Septic to Sewer Conversions	Utility Expenditures	63%	15%	2%	6%	12%	2%	

Of the entire \$62.3 billion in project expenditures over 20 years, three subcategories dominate the rest. Treatment Facility projects and Collection System projects (from the End of Useful Life category) account for 15 percent and 16 percent, respectively, of all project expenditures. Utility expenditures for Septic to Sewer projects represent another 14 percent of the total. See appendix A.2 for more detailed information.

In the previously published analysis, multiple submissions were erroneously included in the municipal and county aggregates. With the corrections, special district submissions account for approximately 7.3 percent of the total projected expenditures. Table 5.2.18, Special District Expenditures by Project Type and Funding Source (in \$millions), contains special district project expenditure projections. Across all expenditures, districts expect to spend 45 percent of their project expenditures on End of Useful Life projects, and over half of that category’s spending will be devoted to collection system projects. Among all district capital improvement expenditures, 25 percent will be split between advanced wastewater treatment projects and to updating treatment facilities (in the Water Quality and End of Useful Life categories, respectively).

Table 5.2.18 Special District Expenditures by Project Type and Funding Source (in \$millions)

Project Category	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Effluent Management	\$233.84	\$31.61	\$30.73	\$16.55	\$95.24	\$99.41	\$89.27	\$98.33
Water Quality	\$280.64	\$28.34	\$108.90	\$26.82	\$171.54	\$89.63	\$94.31	\$51.60
Resiliency	\$53.37	\$20.59	\$22.52	\$24.84	\$43.95	\$8.20	\$5.00	\$5.00
Reuse Development	\$163.90	\$29.88	\$85.06	\$16.64	\$67.52	\$55.80	\$9.18	\$9.46
End of Useful Life								
Replacement	\$334.27	\$185.97	\$192.58	\$174.90	\$142.05	\$148.27	\$131.23	\$740.00
Septic to Sewer Conversions	\$72.61	\$8.37	\$8.48	\$5.60	\$53.90	\$62.37	\$75.61	\$48.34
Total	\$1,138.63	\$304.75	\$448.27	\$265.34	\$574.20	\$463.68	\$404.60	\$952.73

County and municipal projects, divided by county location, are shown in the next two tables. Table 5.2.19 contains projects with committed funding sources, totaling \$30.41 billion. Table 5.2.20, with only county and municipal project expenditures with no identified funding source, totals \$27.34 billion. Statewide, counties and municipalities plan to spend 15 percent of all of their capital improvement expenditures on End of Useful Life collection system projects and an additional 15 percent on End of Useful Life treatment facility projects.

[See table on following page.]

Table 5.2.19 County and Municipal Expenditures with a Committed Funding Source by Project Type (in \$millions)

		Committed Funding Source			
Location	Project Category	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Effluent Management	\$2,122.48	\$605.54	\$429.03	\$380.69
	Water Quality	\$2,900.58	\$464.62	\$462.79	\$115.56
	Resiliency	\$1,830.04	\$360.44	\$191.71	\$243.02
	Reuse Development	\$869.82	\$441.77	\$227.30	\$207.32
	End of Useful Life Replacement	\$4,966.79	\$2,304.38	\$1,966.16	\$2,146.92
	Septic to Sewer Conversions	\$1,166.73	\$146.97	\$121.16	\$108.06
Inland	Effluent Management	\$291.31	\$142.22	\$85.74	\$52.14
	Water Quality	\$478.73	\$137.87	\$90.06	\$105.62
	Resiliency	\$149.85	\$70.59	\$71.79	\$74.08
	Reuse Development	\$238.11	\$55.55	\$61.55	\$58.06
	End of Useful Life Replacement	\$1,093.77	\$611.54	\$515.87	\$584.48
	Septic to Sewer Conversions	\$290.84	\$158.66	\$118.73	\$88.40
Coastal	Total	\$13,856.44	\$4,323.73	\$3,398.14	\$3,201.57
Inland	Total	\$2,542.61	\$1,176.44	\$943.75	\$962.78
Total		\$16,399.05	\$5,500.17	\$4,341.89	\$4,164.35

Table 5.2.20 County and Municipal Expenditures with No Identified Funding Source by Project Type (in \$millions)

		No Identified Funding Source			
Location	Project Category	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Coastal	Effluent Management	\$709.84	\$2,104.31	\$1,175.53	\$663.08
	Water Quality	\$501.23	\$607.17	\$499.34	\$330.92
	Resiliency	\$265.79	\$217.38	\$1,686.96	\$427.56
	Reuse Development	\$238.56	\$252.61	\$355.07	\$187.90
	End of Useful Life Replacement	\$950.71	\$947.23	\$4,171.46	\$1,539.76
	Septic to Sewer Conversions	\$1,296.78	\$1,418.55	\$1,557.47	\$1,254.14
Inland	Effluent Management	\$150.94	\$132.92	\$118.04	\$134.67
	Water Quality	\$122.79	\$148.56	\$185.13	\$43.31
	Resiliency	\$124.49	\$110.93	\$72.80	\$68.49
	Reuse Development	\$86.69	\$55.28	\$99.70	\$163.42
	End of Useful Life Replacement	\$301.87	\$394.67	\$243.32	\$260.80
	Septic to Sewer Conversions	\$240.83	\$243.76	\$248.68	\$217.61
Coastal	Total	\$3,962.91	\$5,547.25	\$9,445.83	\$4,403.35
Inland	Total	\$1,027.60	\$1,086.12	\$967.67	\$888.29
Total		\$4,990.51	\$6,633.37	\$10,413.50	\$5,291.64

To examine the projected expenditures at the county level, Table 5.2.21, Total Project Expenditure Projections Aggregated by County (in \$millions), contains county, municipality, and district aggregates by county. Municipalities and districts are included in the county through which they submitted their needs analyses. Category-specific breakdowns of this table are included in appendix A.

Table 5.2.21 Total Project Expenditure Projections Aggregated by County (in \$millions)

County	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$175.46	\$189.44	\$120.59	\$204.50	\$53.01	\$6.56	\$79.00	\$104.00
Bay	\$911.95	\$32.36	\$52.26	\$10.43	\$144.00	\$190.00	\$47.00	\$89.50
Brevard	\$386.92	\$121.67	\$66.07	\$48.06	\$212.05	\$282.83	\$135.74	\$74.25
Broward	\$1,215.85	\$338.13	\$261.81	\$264.03	\$203.48	\$160.69	\$132.04	\$179.18
Calhoun	\$19.19	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charlotte	\$504.47	\$59.88	\$33.40	\$33.52	\$45.83	\$83.98	\$223.49	\$113.32
Citrus	\$89.21	\$0.00	\$0.00	\$0.00	\$472.93	\$177.41	\$331.11	\$1.61
Clay	\$158.66	\$77.04	\$236.57	\$79.06	\$2.23	\$1.12	\$0.00	\$0.00
Collier	\$371.09	\$172.38	\$167.55	\$152.46	\$66.37	\$73.98	\$54.83	\$30.45
Columbia	\$5.40	\$0.00	\$0.00	\$0.00	\$14.50	\$10.00	\$0.00	\$0.00
Duval	\$1,148.49	\$409.53	\$347.21	\$346.41	\$617.72	\$1,981.77	\$276.84	\$315.18
Escambia	\$106.18	\$37.55	\$35.06	\$33.17	\$109.86	\$205.73	\$164.03	\$444.49
Flagler	\$93.77	\$46.76	\$19.26	\$19.26	\$23.07	\$17.47	\$9.27	\$6.27
Gadsden	\$3.79	\$0.00	\$0.00	\$0.00	\$5.02	\$7.30	\$0.00	\$0.00
Hardee	\$5.32	\$0.42	\$0.28	\$0.28	\$6.82	\$4.20	\$9.99	\$3.07
Hendry	\$10.00	\$84.85	\$72.43	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$55.57	\$3.80	\$5.50	\$3.60	\$9.32	\$58.58	\$110.48	\$203.68
Highlands	\$52.03	\$3.24	\$0.69	\$0.69	\$37.06	\$27.06	\$2.06	\$2.06
Hillsborough	\$1,428.10	\$419.87	\$609.59	\$786.40	\$110.35	\$71.28	\$242.80	\$39.33
Indian River	\$53.94	\$8.80	\$7.16	\$11.10	\$106.87	\$37.90	\$125.92	\$94.73
Lake	\$178.23	\$30.36	\$30.97	\$32.82	\$102.56	\$82.68	\$113.63	\$46.99
Lee	\$871.16	\$364.97	\$674.95	\$341.98	\$445.85	\$309.65	\$37.58	\$37.58
Leon	\$80.74	\$44.25	\$51.36	\$97.33	\$0.00	\$67.92	\$0.38	\$0.00
Levy	\$24.24	\$9.11	\$3.50	\$3.94	\$29.61	\$16.11	\$13.63	\$15.30
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00
Manatee	\$432.95	\$474.10	\$220.12	\$186.56	\$0.00	\$110.10	\$176.38	\$185.85
Marion	\$319.00	\$17.52	\$21.01	\$21.61	\$41.21	\$93.14	\$105.95	\$25.26
Martin	\$57.43	\$10.31	\$7.03	\$2.90	\$40.81	\$59.49	\$70.60	\$8.73
Miami-Dade	\$3,321.09	\$555.83	\$18.18	\$14.56	\$105.90	\$150.03	\$5,504.23	\$981.17
Monroe	\$54.44	\$21.27	\$17.93	\$17.93	\$142.81	\$68.87	\$99.91	\$413.89
Nassau	\$23.82	\$2.88	\$8.99	\$1.54	\$19.11	\$57.25	\$8.40	\$7.70
Okaloosa	\$62.17	\$22.69	\$16.74	\$12.05	\$134.35	\$114.78	\$60.89	\$38.29
Okeechobee	\$39.01	\$0.85	\$0.96	\$1.05	\$31.08	\$35.80	\$42.95	\$7.15
Orange	\$781.56	\$329.51	\$243.13	\$241.75	\$48.44	\$146.07	\$147.89	\$198.55
Osceola	\$261.81	\$8.19	\$6.14	\$7.12	\$0.00	\$0.00	\$0.00	\$0.00
Palm Beach	\$451.25	\$157.20	\$122.53	\$101.97	\$931.41	\$739.49	\$704.85	\$711.27
Pasco	\$550.51	\$326.96	\$375.46	\$431.69	\$51.25	\$275.25	\$312.50	\$357.14
Pinellas	\$1,058.90	\$422.51	\$288.69	\$318.47	\$96.00	\$257.63	\$387.27	\$278.64
Polk	\$319.60	\$100.36	\$57.35	\$77.44	\$183.77	\$127.58	\$61.84	\$147.15
Santa Rosa	\$134.82	\$25.49	\$7.07	\$7.43	\$56.10	\$31.80	\$12.00	\$11.00
Sarasota	\$585.88	\$201.10	\$101.33	\$92.60	\$379.62	\$272.27	\$265.71	\$224.09
Seminole	\$271.88	\$141.81	\$157.09	\$132.99	\$70.28	\$85.91	\$143.59	\$76.29
St Johns	\$339.87	\$193.18	\$187.95	\$170.08	\$9.10	\$199.00	\$264.86	\$345.47
St Lucie	\$224.23	\$44.03	\$9.78	\$10.19	\$115.51	\$62.08	\$21.97	\$133.96
Sumter	\$43.33	\$35.90	\$49.78	\$37.89	\$39.22	\$0.00	\$0.00	\$0.00
Taylor	\$1.00	\$0.99	\$0.91	\$0.91	\$0.09	\$0.09	\$0.09	\$0.09
Volusia	\$249.28	\$256.54	\$75.82	\$71.94	\$245.84	\$335.78	\$315.95	\$291.29
Walton	\$4.12	\$1.30	\$0.00	\$0.00	\$0.30	\$0.44	\$0.44	\$0.44
Statewide	\$17,537.68	\$5,804.92	\$4,790.16	\$4,429.69	\$5,564.71	\$7,097.05	\$10,818.09	\$6,244.37

Examining one category more closely, Septic to Sewer Conversion project expenditure estimates could be accompanied by converted connection counts as well as customer expenditure estimates. Among the Septic to Sewer Conversion projects reported, some needs analyses contained expenditures without providing connection counts, and some included connection counts without any expenditure estimate. Additionally, a single project could be listed as having a utility expenditure projection (committed or no identified funding source) and listed again with “customer expenditures” as the funding source. Table 5.2.22 includes customer expenditure estimates. In cases where a project was listed more than once, duplicated connection counts have been removed.

Table 5.2.22 Septic to Sewer Project Expenditures and Connection Counts (in \$millions)

Funding Source Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	Connection Count
Committed Funding Source	\$1,530.18	\$314.00	\$248.37	\$202.06	119,715
No Identified Funding Source	\$1,591.51	\$1,724.67	\$1,881.76	\$1,520.10	149,711
Total Utility Expenditures	\$3,121.69	\$2,038.67	\$2,130.13	\$1,722.15	269,426
Customer Expenditures	\$243.29	\$179.84	\$297.38	\$93.75	15,916

Among all of the septic to sewer conversion projected expenditures reported, 30 percent occur in counties with Springs BMAPs.¹⁶ Among total project expenditures, only 18.5 percent of the forecast can be attributed to these same counties. While wastewater utilities across the state are pursuing septic to sewer conversion initiatives, those in counties with Springs BMAPs are more actively focusing on the issue.

Categorizing the expenditures and counts by county location, Table 5.2.23 displays the expenditures and connections for all reported projects. It is interesting to note that 77.9 percent of coastal utility costs for this project category have no identified funding source, while the same is true of only 60.7 percent of inland utilities. This, along with the fact that the 61 percent of all landlocked county residents live in a county with a Springs BMAP, implies that the inland projects are further along in the planning process.

[See table on following page.]

¹⁶ These counties include Alachua, Bradford, Citrus, Columbia, Dixie, Gadsden, Gilchrist, Hamilton, Hernando, Jackson, Jefferson, Lafayette, Lake, Leon, Levy, Madison, Marion , Orange, Pasco, Putnam, Seminole, Sumter, Suwannee, Taylor, Union, Volusia, and Wakulla Counties.

Table 5.2.23 Septic to Sewer Expenditures by Location

Location	Funding Source Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	Connection Count
Coastal	Committed Funding Source	\$1,201.09	\$155.34	\$129.63	\$113.66	84,993
	No Identified Funding Source	\$1,317.38	\$1,443.99	\$1,590.13	\$1,295.34	121,430
	Total Utility Expenditures	\$2,518.47	\$1,599.33	\$1,719.76	\$1,409.00	206,423
	Customer Expenditures	\$185.47	\$111.96	\$218.39	\$33.52	7,425
Inland	Committed Funding Source	\$329.09	\$158.66	\$118.73	\$88.40	34,722
	No Identified Funding Source	\$274.13	\$280.68	\$291.63	\$224.76	28,281
	Total Utility Expenditures	\$603.22	\$439.34	\$410.37	\$313.16	63,003
	Customer Expenditures	\$57.82	\$67.88	\$78.99	\$60.23	8,491

Much like the stormwater template, the final section focused on the funding gap calculated from the projects with no identified funding source. Local governments were asked to list strategies and estimate additional revenues. Table 5.2.24, Strategies to Close Funding Gaps by Strategy Description (in \$millions), contains the aggregated revenues local governments hope to raise, grouped in types assigned by EDR based on the strategy description.

Table 5.2.24 Strategies to Close Funding Gaps by Strategy Description (in \$millions)

Strategy Group	Strategy Type (based on description)	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Grants & Loans	Grants	\$388.69	\$408.11	\$487.88	\$420.95	\$1,705.63
	Debt	\$632.33	\$648.85	\$485.28	\$469.24	\$2,235.69
	Grants and/or Debt	\$99.36	\$52.90	\$251.28	\$16.81	\$420.35
	Cost Shares	\$28.22	\$48.98	\$55.07	\$35.00	\$167.27
Governmental Funding	Legislative Appropriations State & Federal (Non-Grant) Funding	\$14.36	\$11.62	\$3.95	\$3.34	\$33.27
		\$99.41	\$43.78	\$49.36	\$84.24	\$276.79
Local Funding Sources	Local Government Funding	\$1.96	\$6.61	\$2.52	\$23.03	\$34.12
	Fees	\$100.82	\$64.97	\$66.08	\$69.18	\$301.06
	Rate or Customer Base Increases	\$80.76	\$94.17	\$165.19	\$119.21	\$459.33
	Developer Fees/Cost Share	\$12.21	\$6.83	\$6.64	\$5.00	\$30.68
Other	Multiple or Unknown Types*	\$57.50	\$199.50	\$205.91	\$169.02	\$631.93
	Strategy Totals	\$1,515.61	\$1,586.31	\$1,779.17	\$1,415.03	\$6,296.12

* Multiple or Unknown Types include blank strategies, descriptions of a project (e.g., “Reuse System” or “Sewer System Improvements”), unknown abbreviations, or groups of other types (e.g., “Grants / Debt / Rates” or “Rate Increase, Bonds, Loans, Grants, Cost-share programs”).

Unlike the stormwater needs analysis, the wastewater analyses included categories for each proposed strategy. Table 5.2.25 shows the potential new revenue by project type, with a row for strategies assigned multiple categories or left blank.

Table 5.2.25 Strategies to Close Funding Gaps by Primary Project Type (in \$millions)

Project Category	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Effluent Management	\$43.41	\$162.82	\$170.64	\$186.00	\$562.87
Water Quality	\$80.95	\$235.99	\$241.66	\$55.00	\$613.61
Resiliency	\$81.19	\$98.09	\$52.47	\$52.65	\$284.40
Reuse Development	\$24.03	\$42.03	\$41.89	\$22.25	\$130.20
End of Useful Life Replacement	\$338.84	\$271.38	\$188.69	\$270.34	\$1,069.25
Septic to Sewer Conversions	\$129.87	\$170.83	\$199.71	\$241.78	\$742.19
Multiple or Blank	\$817.32	\$605.18	\$884.11	\$587.00	\$2,893.61
Total	\$1,515.61	\$1,586.31	\$1,779.17	\$1,415.03	\$6,296.12

For those proposed strategies that are aimed at a specific category, Table 5.2.26 compares the statewide funding gap with the potential revenues by category. Though most categories have similar proportions of potential new revenue devoted to them as their respective funding gaps, the strategies reported for Water Quality far outweigh that category’s portion of the funding gap.

Table 5.2.26 Strategy and Funding Gap Category Comparison (in \$millions)

Project Category	Funding Gap	Percent of Gap	Potential New Revenue	Percent of Revenues
Effluent Management	\$5,571.57	18.7%	\$562.87	16.5%
Water Quality	\$2,845.52	9.6%	\$613.61	18.0%
Resiliency	\$3,036.54	10.2%	\$284.40	8.4%
Reuse Development	\$1,581.18	5.3%	\$130.20	3.8%
End of Useful Life Replacement	\$9,971.36	33.5%	\$1,069.25	31.4%
Septic to Sewer Conversions	\$6,718.05	22.6%	\$742.19	21.8%
Total (with assigned category)	\$29,724.22		\$3,402.51	
Multiple or Blank			\$2,893.61	

Examining the potential revenues for each project category by strategy type, shown in table 5.2.27, strategies aimed at the funding gap for Water Quality projects are overwhelmingly expected to be loans and grants. Though every category has some potential revenue stemming from grants and loans, local funding sources are mainly limited to the more traditional categories of wastewater services like Effluent Management, Water Quality, and End of Useful Life projects. The two categories where local governments are looking toward legislative appropriations and non-grant governmental funding to cover the gap are emerging issues. Both of these, Resiliency and Septic to Sewer projects, have huge upfront costs and are still evolving in terms of policy direction. Finally, debt is most likely to be used for the End of Useful Life projects.

Table 5.2.27 Strategies to Close Funding Gaps by Strategy Description and Project Type (in \$millions)

Strategy Group	Strategy Type (based on description)	Effluent Mgmt.	Water Quality	Resiliency Initiatives	Reuse Development	End of Useful Life	Septic to Sewer	Multiple or Blank	All Categories
Grants & Loans	Grants	\$383.99	\$20.00	\$87.78	\$42.00	\$244.22	\$430.22	\$497.42	\$1,705.63
	Debt	\$1.20	\$246.70	\$70.10	\$37.90	\$609.40	\$17.11	\$1,253.29	\$2,235.69
	Grants and/or Debt	\$0.00	\$259.66	\$0.67	\$0.00	\$37.96	\$81.89	\$40.18	\$420.35
	Cost Shares	\$0.00	\$44.88	\$0.00	\$32.51	\$4.17	\$85.71	\$0.00	\$167.27
Governmental Funding	Legislative Appropriations State & Federal (Non-Grant) Funding	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24.53	\$8.74	\$33.27
	Local Gov. Funding	\$0.00	\$0.00	\$118.63	\$0.00	\$0.00	\$87.03	\$71.13	\$276.79
Local Funding Sources	Fees	\$172.00	\$26.00	\$0.00	\$0.00	\$0.00	\$0.00	\$103.06	\$301.06
	Rate or Customer Base Increases	\$0.00	\$7.92	\$3.10	\$0.00	\$85.77	\$10.03	\$352.52	\$459.33
	Developer Fees / Cost Share	\$5.68	\$0.00	\$0.00	\$0.00	\$25.00	\$0.00	\$0.00	\$30.68
	Multiple or Unknown Types	\$0.00	\$8.45	\$4.13	\$17.79	\$32.08	\$5.68	\$563.82	\$631.93
Strategy Totals		\$562.87	\$613.61	\$284.40	\$130.20	\$1,069.25	\$742.19	\$2,893.61	\$6,296.12

Of the 273 needs analyses incorporated into this assessment, 188 reported future project expenditures with no identified funding source. Of the submissions with a funding gap, 79 also recorded strategies and proposed revenues to close that gap. Table 5.2.28 calculates the percent of the funding gap closed for those 79 entities. For submissions whose strategies exceeded the funding gap, the surplus revenue is not included in the Proposed Revenues field.

Table 5.2.28 Funding Gap Totals for Local Governments that Proposed New Revenues (in \$millions)

Location	Local Government Type	Funding Gap Total	Proposed Revenues	Remaining Funding Gap	Percent of Gap Closed
Coastal	County	\$3,897.05	\$2,674.69	\$1,222.36	68.6%
	Municipality	\$2,936.33	\$1,789.67	\$1,146.66	60.9%
	District	\$995.43	\$488.82	\$506.60	49.1%
Inland	County	\$91.58	\$20.82	\$70.76	22.7%
	Municipality	\$1,660.46	\$1,063.12	\$597.34	64.0%
	District	\$69.01	\$69.01	\$0.00	100.0%
Statewide		\$9,649.86	\$6,106.14	\$3,543.72	63.3%

Table 5.2.29 uses the same group of needs analyses and presents the data by 5-year increment. More so than with stormwater, the portion of the gap that these strategies can close is fairly consistent throughout the horizon, though it does fall to 56.4 percent at the end of the forecast.

Table 5.2.29 Funding Gap for Local Governments that Proposed New Revenues (in \$millions)

	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
Funding Gap	\$1,996.38	\$2,609.80	\$2,586.39	\$2,457.29	\$9,649.86
Proposed Revenues	\$1,311.32	\$1,660.18	\$1,749.79	\$1,384.85	\$6,106.14
Remaining Gap	\$685.06	\$949.62	\$836.60	\$1,072.44	\$3,543.72
Percent of Gap Closed	65.7%	63.6%	67.7%	56.4%	63.3%

The wastewater needs analysis template had the same data entry issues that the stormwater needs analysis template had. As explained in the stormwater management funding gap discussion above, this caused some local governments to skip or only partially complete this section because the funding gap was not calculated correctly. There were 109 local governments that reported a funding gap but did not enter any proposed revenue amounts to close that gap. If one were to assume that their funding gaps would be reduced at the same rate as the 79 submissions that did propose revenues, the statewide funding gap for wastewater projects would fall 63 percent to \$10.92 billion.

Wastewater Conclusion

Local governments in Florida providing wastewater services will face new challenges within the next two decades. There are huge costs, both with day-to-day expenses and in project expenditures, that some local governments will struggle to cover without assistance. However, Florida’s wastewater industry has experience with long-term planning that stormwater management does not, leading to more certainty that significant progress can be made to closing the funding gaps. Table 5.2.30, Reported Wastewater Services Expenditure Projection, summarizes the estimated costs that publicly owned wastewater utilities will face.

Table 5.2.30 Reported Wastewater Services Expenditure Projection (in \$millions)

Wastewater Expenditure Type	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	Total
O&M	\$15,310.63	\$17,574.20	\$20,420.69	\$23,936.59	\$77,242.10
Expansion / Improvement	\$23,102.38	\$12,901.97	\$15,608.26	\$10,674.06	\$62,286.68
Total	\$38,413.01	\$30,476.17	\$36,028.95	\$34,610.65	\$139,528.78

5.3 Federal Drinking Water Infrastructure Needs Survey and Analysis

In 1996, amendments to 1974’s Safe Drinking Water Act (SDWA) established the Drinking Water State Revolving Loan Fund (DWSRF) to assist states and public water systems in protecting the health of the public through low-interest loans. By law, the EPA allocates the DWSRF

capitalization grants among the states and other areas¹⁷ based on the needs reported in the most recent Drinking Water Infrastructure Needs Survey and Assessment (DWINSA). Through a series of surveys, the EPA collects estimated capital expenditure data over a 20-year forecast period.¹⁸ In contrast to EDR’s wastewater and stormwater needs analyses, DWINSA estimates do not include O&M expenditures and do not incorporate inflation into the forecast.

This section will summarize the needs assessment results and discuss the EPA’s first national lead service line inventory. The DWINSA estimate will be the basis of a statewide drinking water expenditure forecast in section 5.4.

Seventh Needs Assessment Results

The Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) was most recently conducted in 2021. Instead of surveying every public water system, the EPA statistically samples water systems of various sizes and types. The results are weighted on a state-specific basis to produce a comprehensive statewide estimate for community water systems and not-for-profit noncommunity water systems.¹⁹ Florida’s drinking water infrastructure needs estimate for capital expenditures from January 2021 to December 2040 was \$26.75 billion (in January 2021 dollars).²⁰ Adjusted to Fiscal Year 2022-23, Florida’s estimated drinking water infrastructure needs are \$30.37 billion.²¹ Table 5.3.1 contains the estimate by capital improvement category, while table 5.3.2 shows the total needs by system size and type (in the case of not-for-profit noncommunity water systems, or NPNCWS).

[See table on following page.]

¹⁷ In addition to the 50 states, the District of Columbia, and Puerto Rico, funding is allocated to American Indian and Alaskan Native Village Water Systems and American Samoa, Guam, the Northern Mariana Islands, and the Virgin Islands.

¹⁸ These two surveys are generally referred to as “quadrennial,” though neither is consistently conducted at four year intervals. Previous Drinking water Infrastructure Needs Survey and Assessments were conducted every four years from 1995 to 2015, but the next survey was delayed. The Clean Watersheds Needs Survey (previously called the Clean Water Needs Survey) was conducted every two years from 1978 to 1992, every four years from 1996 to 2012, then not for a decade. The 2022 survey recently concluded.

¹⁹ The Clean Watersheds Needs Analysis, with which the EPA collects wastewater and stormwater needs information, does not account for non-respondents and aggregates the reported data.

²⁰ EPA, “Drinking Water Infrastructure Needs Survey and Assessment, Seventh Report to Congress,” EPA 810R23001 (September 2023), https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf. (Accessed December 2023.)

²¹ BLS, CPI-All Urban Consumers, Series ID: CUUR0000AA0. The *Engineering News-Record*’s Construction Cost Index was the index used by the EPA for its 2002 report “The Clean Water and Drinking Water Infrastructure Gap Analysis” to adjust DWINSA and CWNS estimates. A cached version of the Construction Cost Index as of January 2024 is available at https://webcache.googleusercontent.com/search?q=cache:Pck3_HUJ8RwJ:https://www.enr.com/economics/historical_indices/construction_cost_index_history+&cd=12&hl=en&ct=clnk&gl=us. (Accessed February 2024.)

Table 5.3.1 DWINSA 20-Year Expenditure Estimates for Florida by Category (in \$millions)

Category	2021 DWINSA	FY 2022-23 CPI Estimate*	FY 2022-23 ENR CCI Estimate*
Distribution / Transmission	\$17,615	\$20,181.08	\$20,001.79
Treatment	\$5,136	\$5,884	\$5,831
Storage	\$1,778	\$2,037	\$2,019
Source	\$1,455	\$1,667	\$1,652
Other	\$766	\$877	\$870
Total	\$26,750	\$30,646	\$30,374

* The estimates are adjusted from January 2021 to Fiscal Year 2022-23 using inflation multipliers. The CPI multiplier was 1.14566306 and the ENR CCI multiplier was 1.1354845044.

Table 5.3.2 DWINSA 20-Year Expenditure Estimates for Florida by System Size/Type (in \$millions)

System Size/Type	2021 DWINSA	FY 2022-23 CPI Estimate*	FY 2022-23 ENR CCI Estimate*
Large	\$12,410	\$14,217.22	\$14,090.91
Medium	\$10,668	\$12,222	\$12,114
Small	\$2,821	\$3,232	\$3,203
NPNCWS	\$851	\$975	\$966
Total	\$26,750	\$30,646	\$30,374

* The estimates are adjusted from January 2021 to Fiscal Year 2022-23 using multipliers. The CPI multiplier was 1.14566306 and the ENR CCI multiplier was 1.1354845044.

Lead Lines Survey Results

Between drinking water surveys, the EPA reviews the methodology and, when necessary, revises the survey or expands the scope. For the seventh survey, the EPA collected inventory data on service lines made of or contaminated by lead. This inventory is the basis of allocating new federal funding to states in order to replace lead service lines (LSLs). A lead service line is a “a portion of pipe that is made of lead, which connects the water main to the building inlet. A lead service line may be owned by the water system, owned by the property owner, or both.”

The EPA’s major tool to eliminate lead in the nation’s drinking water is the Lead and Copper Rule (LCR), first published in 1991. A major update to the rule in December 2020 requires systems to publicly identify the locations of lead service lines and test schools and childcare facilities.²² Further LCR improvements were proposed in November 2023, with which the EPA aims to achieve 100% lead pipe replacement within a decade, require systems to keep their lead service line inventory up to date and public, further improve sampling, and lower the lead action level from 15 parts per billion to 10 parts per billion.

Much of this planned work depends on the LSL inventory, which was conducted alongside the 7th DWINSA. For this inventory, large and medium systems were asked to report the number of

²² EPA, Revisions to the Lead and Copper Rule, <https://www.epa.gov/ground-water-and-drinking-water/revised-lead-and-copper-rule>. (Accessed February 2024.)

service lines in their distribution system that contain, contained, or were once downstream of service lines that contained lead. Service lines were calculated at the state-level in five groups.²³

- “Lead Content” includes service lines that:
 - contain any lead pipe.
 - do not contain any lead pipe but have lead connectors (such as goosenecks or pigtails).
 - contain galvanized pipe and were previously downstream from a lead pipe that was removed from the service line.
 - contain galvanized pipe and were previously downstream from a lead connector that was removed from the service line.
 - contain galvanized pipe and were previously downstream from an unknown source of lead that was removed from the service line.
- “Unknown Material” includes service lines for which the material makeup of the service line and of the connector are not known.
- “Standalone Galvanized” includes service lines that contain galvanized pipe that have never been downstream from any lead pipe or lead connector in the service line.
- “No Lead Content” includes service lines that do not contain any lead pipe or galvanized pipe and that do not have lead connectors.
- “Not Reported” includes service lines for which the surveyed system did not disclose knowledge of material make-up.

The number of reported service lines in Florida for each group is in table 5.3.3.

Table 5.3.3 Service Lines in Florida and Nationwide by Material

Jurisdiction	Lead Content	Unknown Material	Standalone Galvanized	No Lead Content	Not Reported	Total Service Lines
Florida	792,534	956,068	791,911	2,939,425	1,137,447	6,617,385
USA (including DC & PR)*	5,149,407	21,257,965	1,774,364	52,765,494	18,897,953	99,845,183

* This total is the sum of the 50 states, DC, and Puerto Rico. The EPA’s published table contains a nationwide estimate that does not equal the sum of the 50 states or the 50 states plus Washington DC and Puerto Rico.

Service lines that were not reported or recorded as an unknown material cannot be assumed to be 100% lead free. At the state level, the proportion of LSLs in the reported service lines with a known material is extrapolated to create a statewide LSL estimate. (That is to say, of the Lead Content, Standalone Galvanized, and No Lead Content service lines, 17.52 percent were Lead Content. There were an estimated 6,617,385 service lines in the state, so Florida’s LSLs should equal 17.52 percent of that total.) The state and nationwide LSL estimate is shown in table 5.3.4.

²³ EPA, “Drinking Water Infrastructure Needs Survey and Assessment, Seventh Report to Congress,” EPA 810R23001, page 18 (September 2023), https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf. (Accessed December 2023.) Underlined words in original.

Table 5.3.4 Lead Service Line Estimate for Florida and Nationwide

Area	Lead Service Line Estimate	Total Service Lines	Percent of Total SLs
Florida	1,159,300	6,617,385	17.52%
USA (including DC & PR)	9,188,545	99,845,183	9.20%

Florida has an estimated 12.62 percent of the lead service lines in the US. This number of affected service lines is the highest of any state. However, it is not alone in having a large proportion of its service lines classified as containing lead by the EPA. Six other states and the District of Columbia all have a higher proportion of their total service lines classified as LSLs.²⁴ Beginning in 2024, the EPA will use the results of the DWINSA LSL Inventory to allocate federal funding. Barring a major update in the EPA’s LSL inventory, Florida will be allocated a substantial portion of the dollars available for this from the \$15 billion appropriated to the DWSRF in 2021 under the Bipartisan Infrastructure Law for LSL replacement.²⁵

5.4 EDR’s 2021 Drinking Water Survey

In the fall of 2021, EDR distributed a drinking water survey (DWS) to Florida’s community drinking water systems. The survey was voluntary and, while the eventual goal is to include more expenditure and revenue information, the first version attempted to create a snapshot of the physical infrastructure and assets of both publicly and privately owned drinking water utilities.

Relative to the draft survey included in the 2021 Edition, the DWS was revised during 2021 with the input of drinking water professionals. Compared to the draft, the focus of the survey shifted slightly from including (and requiring) information about future plans to mostly focusing on present infrastructure and assets, though there were optional questions about future improvements. Additionally, the survey asked for five years of revenue and expenditure totals, along with information about grants and loans since 2016. The goals and contents of the DWS were quite dissimilar to the statutory requirements for the stormwater management and wastewater services needs analyses discussed above.

²⁴ In Florida, 17.52% of SLs are estimated to be LSLs. Entities with higher LSL percent of total service lines are Connecticut (20.4%), Illinois (27.9%), Ohio (20.6%), Pennsylvania (18.3%), Rhode Island (24.9%), Wisconsin (22.4%), and Washington DC (19.3%).

²⁵ Though the inventory data was collected in 2021, the 7th DWINSA Report to Congress stated the EPA “recognizes that states and communities continue to make progress on identifying LSLs. To account for this rapidly developing data, states will be provided a one-time opportunity to adjust their reported service line data in Fall 2023. The updated service line information will be first used in distribution of DWSRF BIL LSLR funding to states in 2024.” EPA, “Drinking Water Infrastructure Needs Survey and Assessment, Seventh Report to Congress,” EPA 810R23001, page 18 (September 2023), https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf. (Accessed December 2023.) Preliminary allotments published in February 2024 did not include the funding dedicated to LSL replacements. EPA, Preliminary FY 2024 Allotments for the State Revolving Fund (SRF) Provisions of the Bipartisan Infrastructure Law, https://www.epa.gov/system/files/documents/2024-02/preliminary-fy-2024-srf-allotments-memo_2_2024_signed.pdf. (Accessed February 2024.)

In Florida, there is no official single statewide list of drinking water utilities (as opposed to systems—a utility might own a dozen systems listed separately in DEP’s Drinking Water Database). As a result, every community water system was emailed a copy of the survey. The email addresses were taken from the contact information in DEP’s Drinking Water Database.²⁶ This may have negatively affected the response rate, as many of the contacts within that database are system engineers, for example, and not utility directors, who might be more willing or able to undertake the survey. In future years, EDR will reach out directly to municipal and county governments and industry groups such as the American Water Works Association (AWWA). Additionally, EDR will distribute the survey earlier to allow for a longer response time than that allowed in 2021.

EDR Drinking Water Survey Results

There were 77 DWS respondents. As the survey was not only voluntary but also the first version, EDR encouraged respondents to fill out as much as they could and were assured that a partially completed survey was much preferred over no response. This did allow more utilities to respond, but also caused some holes in the data. Among the respondents that reported a population served, a total of 7,288,006 people (excluding wholesale customers) receive their drinking water from these 77 utilities. Using the estimated 2021 population of the state, these utilities serve 33.28% of Florida’s entire population.²⁷ These 7.2 million customers are connected to the distribution system by approximately 2,674,425 water meters.

Though the survey was distributed to both public and privately owned utilities, private utilities were largely non-responsive, private for-profit utilities in particular. Table 5.4.1, DWS Respondents by Ownership Type, shows the ownership type reported by the respondents. Of the six surveys with an “Other” ownership type, one was a state university, one was described as a “non-profit community owned water system,” three were dependent special districts, and one was not specified.

Table 5.4.1 DWS Respondents by Ownership Type

Ownership Type	Respondents by Ownership Type
Independent Special District	6
County	14
Municipality	46
Private Non-Profit	5
Other	6
Total	77

²⁶ DEP, Information from the Drinking Water Database, available at <https://floridadep.gov/water/source-drinking-water/content/information-drinking-water-database>. (Accessed February 2024.)

²⁷ EDR, Total County Population: April 1, 1970 - 2050, available at: http://edr.state.fl.us/Content/population-demographics/data/CountyPopulation_2022.pdf. (Accessed February 2024.)

Surveys were completed by utilities throughout the state, though there was a large response from the southern region of the state, thanks to AWWA outreach in that region. Table 5.4.2, DWS Respondents by Water Management District, shows the number of survey respondents located in each district.

Table 5.4.2 DWS Respondents by WMD

Water Management District	Count*	Percent
Northwest Florida Water Management District (NFWWMD)	13	16.9%
Suwannee River Water Management District (SRWMD)	5	6.5%
St. Johns River Water Management District (SJRWMD)	19	24.7%
Southwest Florida Water Management District (SWFWMD)	21	27.3%
South Florida Water Management District (SFWMD)	25	32.5%

*Some utilities have service areas located in multiple water management districts. The total count is more than the number of respondents.

Most of the survey respondents do source and distribute their own water (70 utilities), though a third (22) also reported buying from a wholesaler. Nearly 90 percent of the respondents also provide wastewater services (67 of 77), and 46 of those supply water reuse services in some way. Whether those reuse services are limited to a few areas (parks or golf courses) or have more extensive coverage (widespread irrigation systems for residential and commercial areas as well as parks and recreation) is unknown. Future surveys will seek more detail about the extent and purpose of reuse systems, as well as any plans for potable reuse.

The survey included limited questions about whether utilities use an asset management system. These systems are considered a best practice within the industry to such an extent that their use is taken into account in prioritizing federal loans. Asset management systems are expensive to establish but can be used to track the existence, location, and condition of everything within the database. As shown in table 5.4.3, fifty-seven utilities reported that they do “use an asset management system to inventory utility assets and track their conditions.” Though the percentage of assets recorded in their systems varied from 10 to 100 percent, 25 utilities reported having 95 percent or more of their assets included (the average among responses was 82 percent). Of the 57 using an asset management system, 31 asset management systems were integrated into a mapping system. An additional 10 utilities reported using a “geographic information system (GIS) for [their] assets” but did not report using an asset management system to inventory and track assets and conditions.

[See table on following page]

Table 5.4.3 Asset Management and GIS Integration for Drinking Water Systems

Asset Management System	Geographic Information System	GIS & AM Integrated	Respondents
Yes	No		10
Yes	Yes	No	16
Yes	Yes*	Yes	31
No	No		10
No	Yes		10

* Two respondents indicated that they had mapped their system and integrated it with their asset management system, but did not indicate that they had an asset management system. They are included here, on the assumption that they made a mistake in the first question.

Drinking Water System Assets

Regarding actual assets, the water production design capacity of drinking water facilities is, in total, approximately a third greater than the permitted capacity reported (total water production design capacity reported at 2,094 mgd, with 1,572 mgd permitted). The respondents using ground water report a total of 1,254 wells then in use, with approximately 141 being drilled or upgraded before 2027. Drinking water storage data was separated into ground storage and elevated storage (*e.g.*, water towers). Respondents reported a total of 455 ground storage tanks with 739.86 million gallons of capacity in use, in addition to 98 elevated tanks that can hold 66.2 million gallons. The age of these tanks ranges from 1936 to brand new.

The distribution infrastructure section of the survey was perhaps the most illuminating. Respondents reported owning 2,173 booster pump stations, the oldest dating from the early 1960s. An estimated 16 new booster pump stations were expected to be built before 2027, with at least another 8 expected before 2042. Additionally, utilities reported that they “expect to majorly rehabilitate or replace” 28 of the existing booster pump stations before 2027, with 33 additional stations over the course of 20 years.

Respondents were asked to answer a variety of questions about the replacement, age, and material of their water distribution pipes, excluding any water mains less than 4 inches in diameter. As with the rest of the survey, utilities were asked to respond as best they could, so an individual utility may have an estimate of the total linear feet of water mains, but not have reported any replacement.

Utilities were asked how many linear feet of pipe were replaced annually over 5 years, as well as the length that was lined over the same time period. Table 5.4.4 shows the statewide totals among the respondents. Lining, clearly, is not a commonly used remedy to repair broken water mains. Floridian utilities instead replace those pipes. Among respondents who reported both the total linear feet of water mains and replacement data, approximately 1.6% of their mains were replaced over the five year period.

Table 5.4.4 Water Main Replacements and Lining, 2016-17 through 2020-21

Year	Linear Feet Replaced	Linear Feet Relined
2016-2017	491,136	
2017-2018	463,098	
2018-2019	376,861	594
2019-2020	394,848	
2020-2021	419,591	
Sometime Over the Last 5 Years*	299,825	
Totals	2,445,359	594

*Respondents who could not provide annual data were allowed to report a 5-year total.

The rate of water main replacement is dependent on the age and condition of those pipes. According to the respondents who calculated or estimated the age of their distribution mains, approximately half of Florida’s water mains date from 1990 or later. Respondents were also asked to either calculate (in linear feet) or estimate (in percentages) the age of their water mains. This question was explicitly framed as optional, so respondents were free to skip it if they were unable to date their infrastructure. As seen in table 5.4.5, the 49 respondents who calculated or estimated the age of their water mains accounted for 80% of the total length of pipe reported by all respondents (29,385 of 36,651 miles of pipe). Though some of the reported ages are certainly replacements of older water mains, the jump in the 1980s reflects a population boom in the state.

Table 5.4.5 Age of Water Mains by Decade

Decade	LF Reported	Percentage of Total
Pre-1960	10,765,449	6.9%
1960-1969	10,669,095	6.9%
1970-1979	20,919,713	13.5%
1980-1989	35,984,064	23.2%
1990-1999	26,053,198	16.8%
2000-2009	31,529,789	20.3%
2010-2019	16,664,247	10.7%
2020-2021	2,568,001	1.7%
TOTAL	155,153,556	100.0%

Not all of the respondents were able to easily report their water main materials. Like with the water main age question on the survey, this is not due to any shortcoming on the utility’s part or on any fault in their record keeping. Respondents were asked to answer what questions they were easily able to complete, but to skip questions that would take a burdensome amount of time or effort to answer. Of the 66 respondents that were able to report a total length of water mains that were 4 inches or larger in diameter, 51 also reported length by material. In an attempt to make reporting simpler, materials were organized into groups.

Table 5.4.6 Water Main Length by Material

Pipe Material	Linear Feet	Linear Miles	Percent of Total
Plastic (PVC, CPVC, HDPE, PE, etc.)	91,492,329	17,328	52.4%
Ductile Iron	43,673,214	8,271	25.0%
Cast Iron (including Cement Lined)	17,371,580	3,290	10.0%
Steel (including Galvanized)	1,207,499	229	0.7%
Concrete (including Prestressed and Reinforced)	1,585,137	300	0.9%
Asbestos Cement	7,837,672	1,484	4.5%
Unknown	11,189,989	2,119	6.4%
Other Metal	94,092	18	0.1%
Other	6,543	1	0.0%
Total	174,458,055	33,041	100.0%

Drinking Water System Financial Information

The financial section of the DWS asked about grants and loans, as well as revenue and expenditure data. Much like the historical data collected in the stormwater maintenance and wastewater services needs analyses, local governments were reticent to report unaudited financial data. Many respondents skipped the revenue and expenditure section, or only entered data for the early years. Note that throughout this section, the total values do not in any way reflect actual revenues or expenditures for the sum of all drinking water utilities across Florida.

The survey asked utilities to list loans and grants they had received since 2016, as well as the funding source. As there were only 10 rows available for data entry and more than one utility filled all rows, some grants and loans may not be included. Table 5.4.7 contains the original loan value, not the amount remaining.

Table 5.4.7 Annual Totals Reported for Grants and Loans (in \$millions)

Year*	Grants	Loans
2016	\$10.38	\$414.36
2017	\$10.37	\$130.39
2018	\$7.57	\$130.94
2019	\$11.78	\$117.77
2020	\$46.34	\$377.36
2021	\$107.76	\$324.64
Six Year Total	\$194.20	\$1,495.47

*If the year reported for a grant or loan was a local fiscal year, the end year was used in in the aggregation (e.g., a grant awarded in LFY2016-17 is included in the 2017 total).

The sources of those funds are noted in table 5.4.8. There is some ambiguity with respect to state and federal funding. For example, some loan source descriptions stated DEP, which may (or may

not) mean the loan was from the state revolving fund which DEP administers on behalf of the EPA.

Table 5.4.8 Grant and Loan Source Types

Grant Source	Proportion of Grants From Source	Loan Source	Proportion of Loans From Source
State	33.6%	State Revolving Fund	21.8%
Mixture of State & Federal	0.4%	DEP	0.1%
Federal	26.5%	US Department of Agriculture	0.0%
County	0.2%	Local Government	0.0%
Regional Entity	0.1%	Bank or Credit Union	25.2%
Water Management District	39.1%	Bonds	36.3%
		Unknown	16.5%

Finally, utilities were asked about preferences for sources other than the Drinking Water State Revolving Fund (DWSRF) financing and asked to choose all reasons that apply. The question stated “If your utility has not applied for or received any DWSRF loans but has pursued alternative financing, or if your utility now chooses to avoid DWSRF funding, is there a reason why? Please choose all that apply.”

Table 5.4.9 Reasons to Seek Non-DWSRF Financing

Reason	Count
Don't need	18
Too much paperwork	6
Not qualified	2
Unfamiliar with the loan process	3
Prefers/uses other financial strategies like municipal bonds	10
Other	6

Reasons from the comments included the availability of other state and federal funding, a request for webinars on the process, the American Iron and Steel requirement, and onerous administrative requirements, particularly for small rural entities.

For the entire five year period the survey covered, 53 utilities reported expenditure information for each year and 61 reported revenue information, though many warned that the values were preliminary and unaudited. Complicating the data further is the fact that of the 77 respondents, 67 also provide wastewater services and 46 provide water reuse services. Some of these multi-service utilities had difficulty isolating drinking water expenditures from expenditures devoted to other uses (for example, calculating the share of the cost for a multi-use administration building or for general software licensing). In the following tables, the annual aggregates are limited to utilities that reported values for all five years. Table 5.4.10 contains expenditure totals while table 5.4.11 contains revenue totals.

The “Other” column in the expenditure table includes things such as “loan repayments or anything else that does not neatly fit into the two major categories.” Explanations respondents provided for the “other” expenditures mostly mentioned transfers, debt, interest, and depreciation.

Table 5.4.10 Drinking Water Expenditures Reported over 5-Year Period(in \$millions)

Local Fiscal Year	Reported Expenditures				Proportion of Expenditures		
	O&M	Capital Improvement	Other	Total	O&M	Capital Improvement	Other
2016-2017	\$856.27	\$305.24	\$189.44	\$1,350.95	63.4%	22.6%	14.0%
2017-2018	\$900.21	\$300.23	\$209.67	\$1,410.12	63.8%	21.3%	14.9%
2018-2019	\$975.66	\$347.78	\$205.08	\$1,528.53	63.8%	22.8%	13.4%
2019-2020	\$1,008.01	\$341.25	\$220.74	\$1,570.01	64.2%	21.7%	14.1%
2020-2021	\$994.81	\$343.86	\$209.47	\$1,548.14	64.3%	22.2%	13.5%

Publicly owned utilities were asked if utility revenue had been transferred from the enterprise fund to a general operating fund for non-utility purposes since fiscal year 2015-16.²⁸ Though it varied slightly from year to year, from 18 to 20 responses indicated transfers in any given year. From comments, some respondents clarified that their transfers were “return on investment” or payment-in-lieu-of-taxes (PILOT) transfers. Though the survey did not ask for the amount transferred, comments describing PILOT transfers ranged from “5.5 percent of the prior year’s gross revenue” to 12 percent of revenue. Winter Haven Water, the city of Winter Haven’s municipal utility, noted “[t]he city commission passed a resolution stating that the support of the General Fund by the Water/Sewer Fund will be decreased \$300,000 per year until the transfer is less than 12% of operating revenue.”

Regarding revenue, table 5.4.11 contains totals for utilities reporting for all five years. As with expenditure data, many respondents warned of unaudited values. Respondents were asked to report customer billing revenue separately from anything else, such as “grants, loans or bonds, legislative appropriations, transfers from other local government funds, etc.” Additional sources noted by respondents include rent, development, connection fees, penalties, and land sales, among many others.

[See table on following page]

²⁸ Transfers for normal administrative or support activities or for shared use of government resources were considered utility purposes.

Table 5.4.11 Drinking Water Revenues Reported over 5-Year Period (in \$millions)

Local Fiscal Year	Reported Revenues			Proportion of Revenues	
	Customer Billing Revenue	Other	Total	Customer Billing Revenue	Other
2016-2017	\$1,665.91	\$447.92	\$2,113.83	78.8%	21.2%
2017-2018	\$1,706.16	\$600.01	\$2,306.17	74.0%	26.0%
2018-2019	\$1,761.94	\$643.05	\$2,404.99	73.3%	26.7%
2019-2020	\$1,871.35	\$594.11	\$2,465.47	75.9%	24.1%
2020-2021	\$1,951.88	\$502.46	\$2,454.34	79.5%	20.5%

Again, the proportion of between sources is more useful than the totals. Even though drinking water utilities often use loans and grants to undertake major capital improvements, the vast majority of their revenue over the last five years was customer billing.

Drinking Water 20-Year Needs Estimate

EDR’s DWS did not ask for expenditure projections from utilities. However, using the state’s 2021 DWINSA estimate for capital improvement costs and the expenditure proportions reported in table 5.4.10, a 20-year statewide estimate can be calculated. DWINSA’s 20-year capital improvement estimate for Florida is \$26,749.60 million, in 2021 dollars. In order for that estimate to be comparable to the stormwater and wastewater forecasts, the total has to (1) be adjusted for inflation, and (2) adjusted using EDR’s DWS expenditure proportions to estimate O&M.

The inflation adjustment is based on the same CPI forecast EDR distributed in the Optional Growth Rate Schedules to help local governments project costs. It is assumed that 5 percent of the 20-year DWINSA forecast is spent each year. Table 5.4.12 aggregates the adjusted DWINSA total into the same 5-year increments the stormwater and wastewater needs analyses used.

Table 5.4.12 DWINSA Estimate, Adjusted for Inflation

	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
DWINSA Adjusted Forecast (Capital Improvement)	\$7,255.79	\$8,129.50	\$9,153.12	\$10,304.96

Next, a multiplier based on the DWS expenditure data is calculated. Capital improvement expenditures accounted for an average of 22.1 percent of the reported data, making the multiplier 4.521418. Because the stormwater and wastewater needs analyses asked about utility or enterprise related expenditures, and many of comments explaining the “Other” expenditures in EDR’s DWS referred to transfers to general funds, that portion will be excluded from the 20-year estimate below.

Table 5.4.13 Drinking Water 20-Year Expenditure Estimate

	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total
O&M	\$20,969.62	\$23,494.71	\$26,453.02	\$29,781.88	\$100,699.24
Capital Improvement	\$7,255.79	\$8,129.50	\$9,153.12	\$10,304.96	\$34,843.37
Total	\$28,225.41	\$31,624.22	\$35,606.14	\$40,086.84	\$135,542.60

Appendix A.3 contains tables showing these calculation step by step, and Appendix B contains a copy of EDR’s final drinking water survey.

EDR plans to complete an updated drinking water survey for the 2025 edition. It will have a substantially revised survey template and will contain a limited expenditure forecast based on capital improvement plans, population data, and possibly a lead service line inventory.

5.5 Water-Related Infrastructure and Service Financial Information

In prior editions, local government expenditure and revenue data for stormwater and wastewater were included in Chapter 4. As this chapter now has contains forecasts for these same water-related expenditures, this historical data, and the statewide forecasts based on that data, are below.²⁹ Each table contains a five-year history of local government financial data obtained from the Florida Department of Financial Services, Division of Accounting and Auditing, Bureau of Local Government. The forecast converts the local fiscal year to the state fiscal year and extends five years to 2025-26.

Table 5.5.1 provides a forecast and details a history of water-related infrastructure and service expenditures by local governments and regional special districts. Water Management Districts are excluded from this forecast. Expenditures in accounts 535 Sewer/Wastewater Services, 536 Water-Sewer Combination Services, and 538 Flood Control/Stormwater Management are grouped into a single reporting category deemed to be water-related infrastructure and service expenditures. Note that the historic data is in local fiscal years, which begin October 1 and end September 30. For forecasting purposes, it has been converted to state fiscal years. Forecasts rely on a three-year average growth rate as it best fits the nature of the data.

[See table on following page]

²⁹ Expenditures and revenues related to water supply (*i.e.*, drinking water) infrastructure are now included in Chapter 3.

Table 5.5.1 Water-Related Infrastructure & Service Expenditures by Local Governments and Regional Special Districts (in \$millions)

History	LFY 16-17	LFY 17-18	LFY 18-19	LFY 19-20	LFY 20-21
Counties	\$2,378.67	\$2,443.46	\$2,654.40	\$2,804.07	\$2,807.10
Municipalities	\$3,487.95	\$3,650.15	\$3,826.34	\$4,218.64	\$4,030.91
Local Special Districts	\$572.19	\$871.25	\$1,000.91	\$1,043.05	\$1,345.98
Regional Special Districts	\$117.02	\$117.71	\$134.43	\$137.05	\$130.15
Total	\$6,555.83	\$7,082.56	\$7,616.09	\$8,202.82	\$8,314.14
Forecast					
	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26
Total	\$8,817.75	\$9,351.86	\$9,918.33	\$10,519.11	\$11,156.28

Source: Annual Financial Report data obtained from the Florida Department of Financial Services, Division of Accounting and Auditing, Bureau of Local Government. Accounts 535, 536, 538.

Table 5.5.2 provides a forecast and details a history of revenues used for water-related infrastructure and service purposes by special districts that are located in multiple counties. Based on survey results, a portion of the account identified as 343.700 Service Charge – Conservation and Resource Management is self-generated for use on water-related infrastructure and service projects and initiatives.³⁰ Further, accounts 323.600 Franchise Fee – Sewer, 343.500 Charges for Services - Sewer-Wastewater Utility, and 343.600 Charges for Services - Water-Sewer Combination Utility are categorized as water-related infrastructure and service self-generated revenue. Accounts 334.350 State Grant – Sewer/Wastewater, 334.360 State Grant – Stormwater Management, and 335.350 State Shared Revenues – Sewer/Wastewater are categorized as water-related infrastructure and service revenues from the state. Finally, account 331.350 Federal Grant – Sewer/Wastewater is categorized as water-related infrastructure and service revenue from the federal government. Note that the historic data is in local fiscal years, which begin October 1 and end September 30. For forecasting purposes, it has been converted to state fiscal years. As revenues are largely based on population, forecasts rely on population growth rates.

[See table on following page]

³⁰ More information on EDR’s local government survey is available in chapter 1 (Annual Assessment of Florida’s Conservation Lands) and chapter 4 (Annual Assessment of Florida’s Water Resources: Quality). Available at: <http://edr.state.fl.us/Content/natural-resources/index.cfm>. (Accessed February 2024.)

Table 5.5.2 Water-Related Infrastructure & Service Revenues Generated to Regional Special Districts by Government Source (in \$millions)

History	LFY 16-17	LFY 17-18	LFY 18-19	LFY 19-20*	FY 20-21*
Self	\$102.40	\$104.30	\$109.68	\$107.82	\$114.77
State	\$0.15	\$1.49	\$0.07	\$-	\$0.54
Federal	\$-	\$0.01	\$-	\$-	\$-
Forecast	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26
Self	\$116.64	\$118.36	\$119.98	\$121.54	\$123.05
State	\$0.55	\$0.56	\$0.57	\$0.58	\$0.58
Federal	\$-	\$-	\$-	\$-	\$-

Source: Annual Financial Report data obtained from the Florida Department of Financial Services, Division of Accounting and Auditing, Bureau of Local Government. Accounts 323.600, 343.500, 343.600, and survey results are applied to 343.700 for self; 334.350, 334.360, and 335.350 for State; and 331.350 for Federal.

* There were data issues for the Seacoast Utility Authority (SUA). As no LFY 19-20 or 20-21 data was available for SUA, a placeholder was created that assumes SUA's 18-19 revenues would have grown by population in order to preserve the integrity of the forecast.

Table 5.5.3 provides a forecast and details a history of self-generated revenues by local governments used for water-related infrastructure and service purposes. Based on survey results, a portion of the local government account 343.700 Service Charge – Conservation and Resource Management is self-generated for use on water-related infrastructure and service projects and initiatives. Further, accounts 323.600 Franchise Fee – Sewer, 343.500 Charges for Services - Sewer-Wastewater Utility, and 343.600 Charges for Services - Water-Sewer Combination Utility are categorized as water-related infrastructure and service revenue that is self-generated. Note that the historic data is in local fiscal years, which begin October 1 and end September 30. For forecasting purposes, it has been converted to state fiscal years. As revenues are largely based on population, forecasts rely on population growth rates.

Table 5.5.3 Water-Related Infrastructure & Service Revenues Generated by Local Governments (in \$millions)

History	LFY 16-17	LFY 17-18	LFY 18-19	LFY 19-20	LFY 20-21
Counties	\$2,378.98	\$2,440.08	\$2,558.50	\$2,705.03	\$2,887.52
Municipalities	\$3,373.07	\$3,475.61	\$3,651.83	\$3,243.69	\$3,752.62
Special Districts	\$241.70	\$242.20	\$266.46	\$269.33	\$415.55
Total	\$5,993.75	\$6,157.89	\$6,476.80	\$6,218.06	\$7,055.69
Forecast	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26
Total	\$7,173.87	\$7,297.43	\$7,406.07	\$7,507.31	\$7,606.24

Source: Annual Financial Report data obtained from the Florida Department of Financial Services, Division of Accounting and Auditing, Bureau of Local Government. Accounts 323.600 and survey results are applied to Account 343.700. Historical data has been revised from the previous Edition; this table supersedes previous versions.

Table 5.5.4 provides a forecast and details a history of revenues generated by the state and provided to local governments for water-related purposes. Accounts 334.350 State Grant –

Sewer/Wastewater, 334.360 State Grant – Stormwater Management, and 335.350 State Shared Revenues – Sewer/Wastewater are categorized as water-related infrastructure and service revenues from the state. Note that the historic data is in local fiscal years, which begin October 1 and end September 30. For forecasting purposes, it has been converted to state fiscal years. As revenues are largely based on population, forecasts rely on population growth rates.

Table 5.5.4 Water-Related Infrastructure & Service Revenues Provided to Local Governments from the State (in \$millions)

History	LFY 16-17	LFY 17-18	LFY 18-19	LFY 19-20	LFY 20-21
Counties	\$9.79	\$11.95	\$11.28	\$7.06	\$7.76
Municipalities	\$16.34	\$10.14	\$6.10	\$10.99	\$10.06
Special Districts	\$0.26	\$0.95	\$2.53	\$1.60	\$3.56
Total	\$26.39	\$23.04	\$19.91	\$19.65	\$21.38
Forecast	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26
Total	\$21.74	\$22.11	\$22.44	\$22.75	\$23.05

Source: Annual Financial Report data obtained from the Florida Department of Financial Services, Division of Accounting and Auditing, Bureau of Local Government, Accounts 334.350, 334.360, and 335.350.

Table 5.5.5 provides a forecast and details a history of revenues generated by the federal government and provided to local governments for water-related infrastructure and service purposes. Account 331.350 Federal Grant – Sewer/Wastewater is categorized as water-related revenue from the federal government. Note that the historic data is in local fiscal years, which begin October 1 and end September 30. For forecasting purposes, it has been converted to state fiscal years. Due to the jump in municipal funding in LFY 2020-21, forecasts rely on a population growth rate applied to the most recent three-year funding average.

Table 5.5.5 Water-Related Infrastructure & Service Revenues Provided to Local Governments from the Federal Government (in \$millions)

History	LFY 16-17	LFY 17-18	LFY 18-19	LFY 19-20	LFY 20-21
Counties	\$0.51	\$0.57	\$2.28	\$0.64	-\$0.16*
Municipalities	\$6.40	\$6.18	\$8.58	\$10.30	\$20.42
Special Districts	\$0.54	\$1.00	\$1.00	\$1.25	\$1.69
Total	\$7.46	\$7.76	\$11.85	\$12.18	\$21.96
Forecast	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26
Total	\$15.59	\$16.86	\$18.41	\$17.19	\$17.72

Source: Annual Financial Report data obtained from the Florida Department of Financial Services, Division of Accounting and Auditing, Bureau of Local Government, Accounts 331.350. Data in this table has been significantly revised and supersedes that reported in previous editions.

*Monroe County reported a negative amount that outweighed other counties' amounts.

5.6 Private Utility Expenditures & Revenues

In addition to publicly owned drinking water and wastewater utilities that report their expenditures and revenues to the Florida Department of Financial Services, some Floridians receive water and wastewater services from privately owned utilities. The Florida Public Service Commission (PSC) has jurisdiction over private drinking water and wastewater utilities in 38 counties, for which the PSC “oversees service territories, regulates rates and earnings, and requires utilities to provide service to all who request it.”³¹

The historical data for the following tables was provided to EDR by the Florida Public Service Commission (PSC) from the annual financial reports submitted by private drinking water utilities. Expenditures and revenues from counties outside its jurisdiction were estimated based on per capita utility expenditures within the 38 jurisdictional counties. This methodology should provide suitable estimates due to a similar mix of rural and urban counties both in and out of the PSC’s jurisdiction. Note that the historic data is in calendar years. For forecasting purposes, it has been converted to state fiscal years. Population growth drives the forecast as utility expenditures are generally expected to follow population growth.³²

Table 5.6.1 provides a forecast and details a history of water supply expenditures by private drinking water utilities.

Table 5.6.1 Water Supply Expenditures by Private Drinking Water Utilities (in \$millions)

History	CY	CY	CY	CY	CY	CY	CY	CY	CY	CY
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	\$37.64	\$38.71	\$40.77	\$40.65	\$42.64	\$41.78	\$46.33	\$44.55	\$49.03	\$50.50
Forecast	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Total	\$50.50	\$51.20	\$51.87	\$52.53	\$53.16	\$53.78	\$54.37	\$54.93	\$55.47	\$55.98

Source: A historical series was created using data provided by the Florida Public Service Commission. County-level population estimates and statewide population forecast are based on the results from the Florida Demographic Estimating Conference, February 2023 and UF, BEBR, Florida Population Studies, Volume 56, Bulletin 195, April 2023 medium county projections.

Table 5.6.2 contains historical data and a forecast of water supply revenues for private drinking water utilities.

³¹ Florida Public Service Commission, “2023 Annual Report,” page 8 (January 2024), <https://www.floridapsc.com/pscfiles/website-files/PDF/Publications/Reports/General/AnnualReports/2023.pdf>. (Accessed February 2024.) The 38 counties the PSC has jurisdiction within are: Alachua, Bradford, Brevard, Broward, Charlotte, Clay, Duval, Escambia, Franklin, Gadsden, Gulf, Hardee, Highlands, Jackson, Lake, Lee, Leon, Levy, Manatee, Marion, Martin, Monroe, Nassau, Okaloosa, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Putnam, Seminole, St. Johns, St. Lucie, Sumter, Volusia, and Washington. The non-jurisdictional counties are: Baker, Bay, Calhoun, Citrus, Collier, Columbia, DeSoto, Dixie, Flagler, Gilchrist, Glades, Hamilton, Hendry, Hernando, Hillsborough, Holmes, Indian River, Jefferson, Lafayette, Liberty, Madison, Miami-Dade, Santa Rosa, Sarasota, Suwannee, Taylor, Union, Wakulla, and Walton. For a map of jurisdictional counties, see <https://www.floridapsc.com/pscfiles/website-files/PDF/Utilities/WaterAndWastewater/wawmap.pdf>. (Accessed February 2024.)

³² EDR, Population: 1970-2050, based on the 2022 estimates adopted by the Demographic Estimating Conference, February 2023, available at: http://edr.state.fl.us/Content/population-demographics/data/CountyPopulation_2022.pdf. (Accessed February 2024.)

Table 5.6.2 Revenues Generated by Private Drinking Water Utilities (in \$millions)

History	CY	CY	CY	CY	CY	CY	CY	CY	CY	CY
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	\$53.98	\$54.55	\$56.71	\$59.98	\$61.83	\$59.73	\$64.29	\$68.33	\$64.88	\$66.21
Forecast	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Total	\$66.52	\$67.43	\$68.32	\$69.18	\$70.02	\$70.83	\$71.61	\$72.35	\$73.06	\$73.73

Source: A historical series was created using data provided by the Florida Public Service Commission. County-level population estimates and statewide population forecast are based on the results from the Florida Demographic Estimating Conference, February 2023 and UF, BEBR, Florida Population Studies, Volume 56, Bulletin 195, April 2023 medium county projections.

Table 5.6.3 provides a forecast and details a history of water quality expenditures by private wastewater utilities. The statewide-extrapolation and forecast methodologies are identical to those used for the water supply estimates for private drinking water utilities.

Table 5.6.3 Water Quality Expenditures by Private Wastewater Utilities (in \$millions)

History	CY	CY	CY	CY	CY	CY	CY	CY	CY	CY
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	\$32.99	\$32.72	\$33.50	\$35.42	\$37.08	\$39.40	\$43.28	\$38.22	\$41.21	\$44.53
Forecast	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Total	\$43.51	\$44.11	\$44.69	\$45.25	\$45.80	\$46.33	\$46.84	\$47.32	\$47.79	\$48.22

Source: A historical series was created using data provided by the Florida Public Service Commission. County-level population estimates and statewide population forecast are based on the results from the Florida Demographic Estimating Conference, February 2023 and UF, BEBR, Florida Population Studies, Volume 56, Bulletin 195, April 2023 medium county projections.

Finally, table 5.6.4 contains revenue data and projections for private wastewater utilities.

Table 5.6.4 Revenues Generated by Private Wastewater Utilities (in \$millions)

History	CY	CY	CY	CY	CY	CY	CY	CY	CY	CY
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	\$45.65	\$47.81	\$50.12	\$54.64	\$56.71	\$58.12	\$60.94	\$53.00	\$64.19	\$67.92
Forecast	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Total	\$67.04	\$67.96	\$68.85	\$69.72	\$70.57	\$71.38	\$72.17	\$72.91	\$73.62	\$74.30

Source: A historical series was created using data provided by the Florida Public Service Commission. County-level population estimates and statewide population forecast are based on the results from the Florida Demographic Estimating Conference, February 2023 and UF, BEBR, Florida Population Studies, Volume 56, Bulletin 195, April 2023 medium county projections.

5.7 Conclusion and Next Steps

In 2024, the Florida Legislature passed Committee Substitute for Committee Substitute for House Bill 1557, Engrossed.³³ Sections 17 and 18 of that bill amend ss. 403.9301 and 403.9302, F.S., adding identical language stating “ Beginning July 1, 2024, and by the July 1 following subsequent publications of the analysis required by this section, the Office of Economic and Demographic Research shall provide a publicly accessible data visualization tool on its website that allows for comparative analyses of key information.”³⁴ EDR will provide the data visualization for stormwater and wastewater programs, inventories, O&M, and expenditure projections using Microsoft Power BI software.

Additionally, an updated drinking water survey will be undertaken and the results published in the 2025 Edition. The survey will be substantially revised so that the survey workbook is easier to use and will include more questions about service area and population, distribution infrastructure (including data on lead service lines that utilities have gathered in the wake of the EPA’s 2023 survey), and a limited expenditure forecast based on capital improvement plans.

³³ Bill history and analyses available at:

<https://www.myfloridahouse.gov/Sections/Bills/billsdetail.aspx?BillId=80310&SessionId=103>. (Accessed March 2024.)

³⁴ Committee Substitute for Committee Substitute for House Bill 1557, Engrossed, available at: <https://www.myfloridahouse.gov/Sections/Documents/loaddoc.aspx?FileName= h1557er.docx&DocumentType=Bill&BillNumber=1557&Session=2024>. (Accessed March 2024.)

Appendix A. Supplemental Tables

Appendix A.1 Supplemental Stormwater Data

County Aggregates

Table A.1.1 contains county-level stormwater inventory aggregates. Tables A.1.2 through A.1.5 contain county-level aggregates for stormwater expenditure projections by project type.

Table A.1.1 Stormwater Inventory Aggregates by County

County	Estimated Number of:			Number of:				
	miles of buried culvert	miles of open ditches / conveyances (lined and unlined)	storage or treatment basins (i.e., wet or dry ponds)	gross pollutant separators including engineered sediment traps	chemical treatment systems	stormwater pump stations	dynamic water level control structures	stormwater treatment wetland systems
Alachua	167.50	941.19	340	13	0	12	0	1
Bay	181.92	1,346.10	259	36	0	0	3	0
Brevard	342.35	531.78	501	173	1	4	4	0
Broward	9,700.47	792.23	5,078	1323	0	73	242	10
Charlotte	265.06	5,887.98	523	53	0	0	2	0
Citrus	2,055.16	631.00	607	2	0	0	3	5
Clay	396.88	169.38	265	0	0	4	0	0
Collier	525.16	1,574.92	1,079	134	0	10	63	15
Columbia	156.28	2,504.00	59	2	0	6	1	0
DeSoto	24.79	1,396.00	1	2	0	0	0	0
Duval	1,638.48	995.28	385	13	0	10	2418	0
Escambia	270.88	2,128.64	818	143	0	18	2	1
Flagler	77.27	1,521.34	292	39	0	4	30	0
Franklin	3.79	150.00	2	4	0	0	0	0
Gadsden	32.45	1,091.00	11	0	0	0	0	0
Glades	0.72	144.42	16	0	0	0	0	0
Hardee	0.20	20.45	0	0	0	0	0	0
Hendry	57.66	617.00	44	6	0	27	2	0
Hernando	221.94	99.97	5,565	5	0	3	363	5
Highlands	20.40	1,072.91	175	560	1	2	40	16
Hillsborough	2,161.58	1,579.14	4,224	145	2	56	2905	43
Indian River	1,099.83	2,133.38	82	44	0	24	42	3
Lake	631.04	418.73	799	102	0	1	1	0
Lee	1,722.47	4,670.73	2,383	152	0	4	229	61
Leon	504.58	995.81	797	57	2	1	14	3
Levy	16.97	1,454.36	192	2	0	0	0	0
Liberty	6.63	675.57	0	0	0	0	0	0
Manatee	241.76	705.71	1,469	23	0	0	272	1
Marion	478.03	5,823.29	2,943	17	0	12	0	1
Martin	223.41	674.35	323	168	2	8	5	3
Miami-Dade	938.27	3,630.03	358	2388	8	107	191	2
Monroe	38.28	140.10	22	1135	0	9	0	0
Nassau	125.09	1,300.09	764	14	0	2	0	0

County	Estimated Number of:				Number of:			
	miles of buried culvert	miles of open ditches / conveyances (lined and unlined)	storage or treatment basins (i.e., wet or dry ponds)	gross pollutant separators including engineered sediment traps	chemical treatment systems	stormwater pump stations	dynamic water level control structures	stormwater treatment wetland systems
Okaloosa	487.17	239.06	619	415	0	2	0	0
Okeechobee	36.81	787.00	17	5	0	0	36	0
Orange	4,413.37	1,750.07	2,433	652	8	33	2554	3
Osceola	1,238.54	1,163.25	1,257	2	0	1	1	0
Palm Beach	3,639.28	1,420.42	2,415	290	2	63	132	5
Pasco	597.63	582.84	1,687	64	8	12	100	32
Pinellas	1,880.96	637.58	806	340	22	67	227	13
Polk	1,004.81	167.02	727	49	4	17	541	6
Santa Rosa	133.47	121.84	696	3	0	21	0	0
Sarasota	596.23	3,362.95	1,046	123	0	11	195	15
Seminole	583.76	62.15	1,731	123	2	10	4	0
St Johns	408.23	864.75	370	20	0	10	3	2
St Lucie	403.07	2,839.07	365	20	2	16	240	4
Sumter	123.28	10.47	902	95	0	6	209	0
Taylor	22.62	541.99	26	9	0	0	0	0
Volusia	1,067.14	1,538.51	1,797	75	1	64	158	1
Walton	121.27	943.01	117	5	0	0	3	0
Statewide	41,084.94	64,848.87	47,387	9,045	65	730	11,235	251

[See next table on following page]

Table A.1.2 Flood Protection Expenditure Projections Aggregated by County (in \$millions)

County	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$3.48	\$0.00	\$0.00	\$0.00	\$9.99	\$0.00	\$0.00	\$0.00
Bay	\$34.75	\$0.00	\$0.00	\$0.00	\$12.44	\$4.50	\$4.50	\$4.50
Brevard	\$18.11	\$0.76	\$1.18	\$0.25	\$30.38	\$7.61	\$5.78	\$5.83
Broward	\$221.55	\$68.30	\$42.49	\$43.52	\$220.40	\$174.34	\$58.71	\$60.22
Charlotte	\$2.64	\$0.08	\$0.08	\$0.08	\$0.00	\$0.00	\$0.00	\$0.00
Citrus	\$2.25	\$1.25	\$1.25	\$1.25	\$36.14	\$35.68	\$35.70	\$35.94
Clay	\$2.85	\$0.09	\$0.12	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$80.60	\$0.25	\$0.00	\$0.00	\$5.01	\$25.87	\$37.41	\$0.28
Columbia	\$0.25	\$0.00	\$0.00	\$0.00	\$1.10	\$3.50	\$3.50	\$0.00
DeSoto	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Duval	\$48.28	\$8.62	\$13.23	\$13.37	\$63.54	\$142.51	\$197.46	\$240.20
Escambia	\$20.00	\$0.00	\$0.00	\$0.00	\$152.16	\$54.95	\$61.57	\$124.74
Flagler	\$9.67	\$0.90	\$0.15	\$0.00	\$5.16	\$5.30	\$5.62	\$5.96
Gadsden	\$0.00	\$0.00	\$0.00	\$0.00	\$1.40	\$0.75	\$0.00	\$0.00
Glades	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hendry	\$4.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$0.13	\$0.00	\$0.00	\$0.00	\$0.00	\$10.01	\$5.00	\$6.20
Highlands	\$0.00	\$0.00	\$0.00	\$0.00	\$9.75	\$15.40	\$10.00	\$0.00
Hillsborough	\$121.37	\$82.42	\$13.48	\$15.62	\$22.55	\$34.10	\$105.51	\$110.02
Indian River	\$4.47	\$0.41	\$0.53	\$0.68	\$11.15	\$5.25	\$4.90	\$5.10
Lake	\$9.57	\$2.32	\$2.48	\$2.57	\$17.46	\$16.78	\$9.20	\$2.74
Lee	\$158.88	\$118.93	\$140.03	\$139.90	\$43.06	\$52.13	\$22.21	\$14.26
Leon	\$28.11	\$14.44	\$14.40	\$14.47	\$24.21	\$105.82	\$120.94	\$0.71
Levy	\$0.71	\$0.00	\$0.00	\$0.00	\$1.00	\$1.12	\$1.26	\$1.41
Liberty	\$0.80	\$0.00	\$0.00	\$0.00	\$1.30	\$0.00	\$0.00	\$0.00
Manatee	\$5.99	\$0.00	\$0.00	\$0.00	\$203.16	\$0.23	\$0.00	\$93.69
Marion	\$7.73	\$0.00	\$0.00	\$0.00	\$8.53	\$4.71	\$4.50	\$9.47
Martin	\$7.85	\$0.00	\$0.00	\$0.00	\$13.90	\$31.39	\$13.55	\$17.97
Miami-Dade	\$334.25	\$135.17	\$93.21	\$95.96	\$116.68	\$427.04	\$112.60	\$65.00
Monroe	\$27.12	\$0.00	\$0.00	\$0.00	\$12.30	\$15.83	\$15.01	\$14.90
Nassau	\$1.05	\$0.00	\$0.00	\$0.00	\$10.96	\$8.58	\$6.44	\$6.94
Okaloosa	\$20.74	\$2.00	\$0.01	\$0.00	\$6.96	\$10.13	\$5.66	\$5.76
Okeechobee	\$0.47	\$0.00	\$0.00	\$0.00	\$4.64	\$18.92	\$0.00	\$0.00
Orange	\$32.39	\$6.85	\$7.11	\$4.53	\$25.45	\$29.11	\$20.76	\$35.13
Osceola	\$3.05	\$0.00	\$0.00	\$0.00	\$36.87	\$6.93	\$0.00	\$0.00
Palm Beach	\$72.50	\$32.52	\$31.60	\$39.34	\$53.08	\$62.15	\$66.62	\$49.05
Pasco	\$42.01	\$40.08	\$45.58	\$53.13	\$0.50	\$16.02	\$0.00	\$2.30
Pinellas	\$149.88	\$64.09	\$8.42	\$7.43	\$31.34	\$121.14	\$114.95	\$116.84
Polk	\$78.67	\$9.80	\$1.00	\$0.00	\$75.85	\$48.80	\$0.14	\$0.15
Santa Rosa	\$33.20	\$0.00	\$0.00	\$0.00	\$4.05	\$10.04	\$12.09	\$27.58
Sarasota	\$21.49	\$6.03	\$6.99	\$8.10	\$6.19	\$51.98	\$41.80	\$4.00
Seminole	\$28.07	\$6.32	\$4.79	\$5.76	\$32.45	\$15.37	\$12.73	\$15.26
St Johns	\$60.88	\$0.00	\$0.00	\$0.00	\$13.58	\$29.54	\$18.47	\$41.56
St Lucie	\$12.01	\$17.08	\$0.01	\$0.00	\$1.30	\$13.33	\$1.00	\$1.00
Sumter	\$7.73	\$0.00	\$0.00	\$0.00	\$15.16	\$1.50	\$1.50	\$1.50
Taylor	\$4.00	\$0.00	\$0.00	\$0.00	\$0.08	\$0.00	\$0.00	\$0.00
Volusia	\$38.99	\$3.22	\$3.41	\$3.62	\$153.56	\$105.35	\$89.53	\$86.68
Walton	\$6.71	\$3.57	\$0.00	\$0.00	\$2.35	\$0.50	\$0.50	\$0.50
Statewide	\$1,769.54	\$625.50	\$431.53	\$449.72	\$1,497.13	\$1,724.21	\$1,227.10	\$1,213.38

Table A.1.3 Water Quality Expenditure Projections Aggregated by County

County	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$6.58	\$5.52	\$4.88	\$4.88	\$1.80	\$10.00	\$12.00	\$0.00
Bay	\$15.42	\$0.00	\$0.00	\$0.00	\$40.00	\$40.00	\$40.00	\$40.00
Brevard	\$24.97	\$16.28	\$9.83	\$18.54	\$35.24	\$27.92	\$24.22	\$23.77
Broward	\$13.64	\$2.01	\$2.01	\$2.01	\$9.23	\$7.62	\$10.28	\$5.68
Charlotte	\$2.66	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Citrus	\$5.90	\$0.00	\$0.00	\$0.00	\$5.00	\$5.00	\$5.00	\$5.00
Clay	\$2.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$93.23	\$3.50	\$0.00	\$0.00	\$8.20	\$31.35	\$6.51	\$3.74
Columbia	\$10.89	\$0.00	\$0.00	\$0.00	\$1.25	\$4.00	\$0.00	\$0.00
DeSoto	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Duval	\$132.99	\$36.58	\$12.63	\$12.63	\$165.46	\$626.19	\$458.40	\$554.53
Escambia	\$4.45	\$0.00	\$0.00	\$0.00	\$28.86	\$34.44	\$31.58	\$18.94
Flagler	\$0.85	\$0.00	\$0.00	\$0.00	\$1.74	\$0.00	\$0.00	\$0.00
Gadsden	\$0.00	\$0.00	\$0.00	\$0.00	\$1.25	\$0.00	\$0.00	\$0.00
Glades	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hendry	\$0.06	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$1.00	\$1.00
Hernando	\$1.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2.50	\$0.00
Highlands	\$14.50	\$5.00	\$0.00	\$0.00	\$0.20	\$0.15	\$5.00	\$5.00
Hillsborough	\$5.10	\$0.00	\$0.00	\$0.00	\$5.94	\$21.73	\$3.17	\$3.68
Indian River	\$8.21	\$0.00	\$0.00	\$0.00	\$67.12	\$150.86	\$150.86	\$50.86
Lake	\$3.42	\$2.51	\$2.90	\$3.37	\$21.05	\$25.11	\$20.98	\$19.89
Lee	\$51.00	\$34.94	\$42.71	\$39.98	\$70.79	\$25.24	\$13.11	\$8.50
Leon	\$9.58	\$0.56	\$0.60	\$0.54	\$0.38	\$0.29	\$0.36	\$2.10
Levy	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$0.60	\$0.00	\$0.00	\$0.00	\$11.40	\$3.71	\$5.65	\$3.12
Marion	\$3.57	\$0.00	\$0.00	\$0.00	\$0.00	\$5.00	\$5.00	\$5.00
Martin	\$10.16	\$0.00	\$0.00	\$0.00	\$34.09	\$32.48	\$18.94	\$18.80
Miami-Dade	\$178.51	\$86.51	\$16.07	\$16.65	\$21.42	\$159.93	\$70.95	\$27.00
Monroe	\$3.50	\$0.00	\$0.00	\$0.00	\$0.30	\$2.35	\$0.00	\$0.00
Nassau	\$1.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Okaloosa	\$1.50	\$2.70	\$0.00	\$0.00	\$8.55	\$3.00	\$8.00	\$15.00
Okeechobee	\$1.66	\$0.00	\$0.00	\$0.00	\$0.85	\$11.67	\$0.00	\$0.00
Orange	\$58.16	\$71.11	\$73.85	\$13.32	\$233.31	\$38.86	\$42.40	\$20.60
Osceola	\$0.54	\$0.00	\$0.00	\$0.00	\$1.95	\$0.00	\$0.00	\$0.00
Palm Beach	\$21.15	\$9.81	\$2.01	\$1.52	\$3.40	\$7.37	\$6.52	\$6.15
Pasco	\$1.38	\$1.98	\$1.14	\$1.20	\$0.00	\$0.00	\$0.58	\$0.00
Pinellas	\$28.84	\$10.90	\$3.55	\$2.70	\$27.29	\$37.89	\$27.21	\$29.56
Polk	\$7.38	\$3.05	\$2.00	\$0.75	\$61.18	\$12.17	\$1.57	\$1.00
Santa Rosa	\$9.52	\$0.00	\$0.00	\$0.00	\$0.00	\$17.50	\$16.88	\$1.79
Sarasota	\$17.32	\$0.15	\$0.16	\$0.18	\$54.21	\$96.06	\$45.00	\$23.16
Seminole	\$19.05	\$7.49	\$9.49	\$6.53	\$3.00	\$17.16	\$6.06	\$9.74
St Johns	\$5.52	\$0.28	\$0.32	\$0.36	\$1.51	\$8.45	\$11.28	\$31.30
St Lucie	\$24.12	\$26.64	\$8.56	\$11.42	\$10.44	\$38.82	\$0.00	\$0.00
Sumter	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taylor	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Volusia	\$25.40	\$2.08	\$0.00	\$0.00	\$39.44	\$28.34	\$30.54	\$34.57
Walton	\$3.70	\$0.00	\$0.00	\$0.00	\$1.50	\$0.50	\$0.50	\$0.50
Statewide	\$830.95	\$329.61	\$192.69	\$136.57	\$977.34	\$1,532.15	\$1,082.02	\$969.96

Table A.1.4 Resiliency Expenditure Projections Aggregated by County

County	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$0.00	\$0.00	\$0.00	\$0.00	\$1.30	\$0.20	\$0.25	\$0.05
Bay	\$30.00	\$0.00	\$0.00	\$0.00	\$4.50	\$41.00	\$45.00	\$50.00
Brevard	\$0.52	\$1.33	\$1.52	\$0.65	\$3.83	\$2.39	\$2.02	\$1.43
Broward	\$35.84	\$4.40	\$4.57	\$4.73	\$145.55	\$21.91	\$37.18	\$18.52
Charlotte	\$0.05	\$0.00	\$0.00	\$0.00	\$1.35	\$0.00	\$0.00	\$0.00
Citrus	\$0.00	\$0.00	\$0.00	\$0.00	\$22.93	\$25.94	\$2.50	\$2.92
Clay	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$81.49	\$0.00	\$0.00	\$0.00	\$0.00	\$18.39	\$13.87	\$13.44
Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DeSoto	\$0.00	\$0.00	\$0.00	\$0.00	\$5.00	\$0.00	\$0.00	\$0.00
Duval	\$125.87	\$21.10	\$12.50	\$12.50	\$67.42	\$179.80	\$243.03	\$255.04
Escambia	\$6.45	\$2.10	\$0.00	\$0.00	\$0.00	\$0.28	\$0.00	\$0.28
Flagler	\$0.00	\$0.00	\$0.00	\$0.00	\$27.20	\$2.98	\$3.36	\$3.78
Gadsden	\$0.88	\$1.50	\$0.00	\$0.00	\$0.70	\$0.00	\$0.00	\$0.00
Glades	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hendry	\$0.00	\$0.00	\$0.00	\$0.00	\$1.28	\$0.00	\$0.00	\$0.00
Hernando	\$6.00	\$0.00	\$0.00	\$0.00	\$0.20	\$0.50	\$0.00	\$0.00
Highlands	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hillsborough	\$60.96	\$2.79	\$0.37	\$0.00	\$0.00	\$32.50	\$26.00	\$15.00
Indian River	\$0.00	\$0.00	\$0.00	\$0.00	\$37.92	\$0.00	\$0.00	\$0.00
Lake	\$1.13	\$0.00	\$0.00	\$0.00	\$1.00	\$1.00	\$1.00	\$1.00
Lee	\$54.11	\$38.88	\$20.43	\$23.00	\$10.75	\$7.00	\$12.65	\$15.00
Leon	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Levy	\$0.20	\$0.00	\$0.00	\$0.00	\$0.60	\$0.00	\$0.00	\$0.00
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$0.00	\$0.00	\$0.00	\$0.00	\$1.70	\$2.07	\$2.52	\$3.06
Marion	\$3.93	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Martin	\$2.22	\$0.00	\$0.00	\$0.00	\$16.29	\$30.01	\$25.46	\$12.54
Miami-Dade	\$716.47	\$71.37	\$40.94	\$46.09	\$411.42	\$402.31	\$298.33	\$360.82
Monroe	\$3.45	\$0.00	\$0.00	\$0.00	\$974.16	\$215.75	\$194.68	\$396.46
Nassau	\$2.54	\$0.00	\$0.00	\$0.00	\$8.30	\$0.80	\$0.80	\$0.80
Oakaloosa	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.55	\$0.75	\$0.10
Okeechobee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$0.00	\$0.00
Orange	\$12.01	\$2.89	\$3.04	\$0.00	\$0.67	\$9.55	\$11.08	\$0.00
Osceola	\$0.79	\$0.00	\$0.00	\$0.00	\$20.21	\$0.00	\$0.00	\$0.00
Palm Beach	\$66.32	\$8.50	\$10.10	\$11.77	\$6.30	\$13.40	\$33.54	\$60.42
Pasco	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pinellas	\$62.69	\$48.00	\$9.32	\$12.34	\$10.81	\$37.87	\$22.86	\$221.48
Polk	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Santa Rosa	\$7.96	\$0.00	\$0.00	\$0.00	\$3.80	\$0.00	\$0.00	\$0.00
Sarasota	\$2.33	\$1.00	\$1.00	\$1.00	\$10.72	\$12.00	\$12.00	\$48.37
Seminole	\$13.53	\$0.30	\$0.10	\$0.35	\$13.54	\$8.22	\$8.85	\$5.15
St Johns	\$44.13	\$0.88	\$0.98	\$1.11	\$5.07	\$35.95	\$10.20	\$4.17
St Lucie	\$13.04	\$31.05	\$14.10	\$5.87	\$16.02	\$5.71	\$0.00	\$0.00
Sumter	\$0.00	\$0.00	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$0.00
Taylor	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Volusia	\$49.74	\$4.84	\$0.00	\$0.00	\$35.40	\$68.65	\$80.70	\$61.75
Walton	\$15.98	\$0.00	\$0.00	\$0.00	\$1.53	\$1.40	\$1.40	\$1.40
Statewide	\$1,420.63	\$240.92	\$118.97	\$119.41	\$1,867.70	\$1,178.13	\$1,090.01	\$1,552.98

Table A.1.5 End of Useful Life Expenditure Projections Aggregated by County

County	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$0.55	\$0.50	\$0.50	\$0.50	\$6.26	\$2.50	\$2.50	\$2.50
Bay	\$0.50	\$0.50	\$0.50	\$0.50	\$1.52	\$1.52	\$1.52	\$1.52
Brevard	\$5.22	\$2.63	\$2.43	\$3.66	\$18.46	\$18.08	\$16.20	\$15.22
Broward	\$9.03	\$6.96	\$7.24	\$6.80	\$66.81	\$67.55	\$73.58	\$59.66
Charlotte	\$0.72	\$0.00	\$0.00	\$0.00	\$4.00	\$0.02	\$0.02	\$0.01
Citrus	\$3.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Clay	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$74.22	\$6.56	\$7.39	\$8.32	\$0.00	\$27.52	\$11.00	\$13.50
Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$2.50	\$1.50	\$2.75	\$4.50
DeSoto	\$3.26	\$0.26	\$0.26	\$0.26	\$0.50	\$0.00	\$0.00	\$0.00
Duval	\$24.45	\$6.13	\$12.50	\$12.50	\$58.30	\$138.47	\$195.52	\$249.70
Escambia	\$0.75	\$0.00	\$0.00	\$0.00	\$9.31	\$0.00	\$0.00	\$0.00
Flagler	\$7.86	\$6.42	\$6.84	\$7.29	\$2.40	\$3.17	\$3.32	\$3.48
Gadsden	\$0.00	\$0.00	\$0.00	\$0.00	\$0.03	\$0.00	\$0.00	\$0.00
Glades	\$0.11	\$0.11	\$0.12	\$0.12	\$0.00	\$0.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.33	\$0.35	\$0.36	\$0.37
Hendry	\$1.28	\$1.25	\$1.25	\$1.25	\$4.18	\$2.74	\$4.21	\$2.01
Hernando	\$1.69	\$1.29	\$1.50	\$1.73	\$0.20	\$0.20	\$0.20	\$0.20
Highlands	\$0.97	\$1.17	\$1.23	\$1.27	\$0.00	\$0.35	\$0.00	\$0.00
Hillsborough	\$84.52	\$85.08	\$86.16	\$86.23	\$336.50	\$337.23	\$352.67	\$358.18
Indian River	\$7.51	\$3.51	\$4.01	\$4.19	\$18.94	\$16.53	\$14.40	\$15.35
Lake	\$6.59	\$2.92	\$3.17	\$3.53	\$3.84	\$4.87	\$3.87	\$4.20
Lee	\$22.52	\$25.34	\$28.48	\$30.33	\$27.03	\$21.15	\$21.45	\$24.45
Leon	\$11.38	\$8.00	\$8.00	\$8.00	\$0.00	\$0.00	\$0.00	\$0.00
Levy	\$0.00	\$0.00	\$0.00	\$0.00	\$0.81	\$0.42	\$0.47	\$0.53
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$3.21	\$3.90	\$3.89	\$5.01	\$12.99	\$0.56	\$1.54	\$3.50
Marion	\$0.71	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Martin	\$19.78	\$0.07	\$0.00	\$0.07	\$2.66	\$12.16	\$11.76	\$13.42
Miami-Dade	\$3.34	\$1.85	\$0.00	\$0.00	\$43.54	\$51.12	\$52.43	\$47.51
Monroe	\$0.15	\$0.00	\$0.00	\$0.00	\$4.45	\$16.20	\$11.60	\$21.60
Nassau	\$7.14	\$7.11	\$7.17	\$7.51	\$0.00	\$0.00	\$0.00	\$0.00
Oakaloosa	\$5.79	\$0.50	\$0.00	\$0.00	\$2.90	\$14.16	\$15.64	\$5.18
Okeechobee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Orange	\$13.48	\$1.98	\$3.00	\$9.23	\$2.06	\$9.94	\$10.75	\$12.10
Osceola	\$0.00	\$0.00	\$0.00	\$0.00	\$5.30	\$2.00	\$0.00	\$0.00
Palm Beach	\$38.05	\$12.79	\$27.06	\$22.39	\$11.31	\$41.47	\$74.11	\$65.20
Pasco	\$16.57	\$18.35	\$21.29	\$24.61	\$0.00	\$2.00	\$2.00	\$3.50
Pinellas	\$93.29	\$49.49	\$48.36	\$56.81	\$36.54	\$43.35	\$33.78	\$34.41
Polk	\$36.43	\$1.50	\$1.63	\$1.92	\$7.69	\$7.58	\$11.00	\$3.50
Santa Rosa	\$4.00	\$0.00	\$0.00	\$0.00	\$15.00	\$16.50	\$16.00	\$15.00
Sarasota	\$11.91	\$21.93	\$11.83	\$14.27	\$75.05	\$36.63	\$0.00	\$0.00
Seminole	\$6.89	\$8.00	\$5.53	\$4.71	\$11.40	\$16.36	\$11.36	\$10.97
St Johns	\$24.70	\$24.00	\$28.00	\$33.00	\$3.38	\$4.56	\$6.06	\$4.52
St Lucie	\$14.83	\$25.95	\$22.03	\$28.24	\$62.30	\$40.05	\$31.04	\$28.37
Sumter	\$4.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taylor	\$0.00	\$0.00	\$0.00	\$0.00	\$0.07	\$0.00	\$0.00	\$0.00
Volusia	\$7.11	\$2.92	\$3.54	\$3.70	\$11.22	\$16.37	\$12.96	\$9.72
Walton	\$0.00	\$0.00	\$0.00	\$0.00	\$1.20	\$0.00	\$0.00	\$0.41
Statewide	\$578.61	\$338.95	\$354.89	\$387.95	\$870.96	\$975.16	\$1,006.05	\$1,034.29

Appendix A.2 Supplemental Wastewater Data

Wastewater Green BMPs

The majority of local governments providing wastewater services reported engaging in at least some “green” best management practices (BMPs). This table contains the count of submissions that reported currently engaging in a particular practice, and the count of local governments that do not currently engage in that practice but planned to do so within the next 20 years. Among these BMPs, a handful of jurisdictions currently engage in a practice but do not plan to continue. Though cost may be the driving factor for one or more of these (e.g., cost of maintaining a reclaimed water distribution system), other concerns such as water quality, ending a pilot program, or just realigned priorities may be the reasoning behind ending a practice.

Table A.2.1 Wastewater Green BMPs

Green Infrastructure Best Management Practice*	Currently in Use	Planned (Not currently in use)	Currently in Use, but Plan to Stop**	Not Currently in Use, Not Planned
Answer Description: Currently In Use Planned	Yes (any response)	No or Blank Yes	Yes No	No No
Lining	202	15	5	34
Co-generation (energy)	10	8	2	202
Reuse of reclaimed water	164	20	5	67
Hydrogen sulfide recovery/use	9	2	2	205
Beneficial use of biosolids	89	21	8	128

* Counts do not total 273 due to some blank answers.

** Local government answered “Yes” to Current and “No” to Planned. These jurisdictions are also counted in the “Currently in Use” column.

Expenditure Aggregates

Tables A.2.2 through A.2.6 contain county-level aggregates for wastewater expenditure projections by project type.

Table A.2.7 contains project expenditures for government types and location by project subcategory, with percentages based on the statewide total. (Table 5.2.17 contains percentages based on category total.)

**Table A.2.2 Effluent Management Project Expenditure Projections Aggregated by County
(in \$millions)**

COUNTY	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$14.43	\$16.45	\$18.74	\$21.37	\$0.00	\$0.00	\$0.00	\$0.00
Bay	\$107.60	\$7.00	\$45.00	\$2.00	\$41.00	\$94.00	\$1.00	\$40.50
Brevard	\$74.42	\$37.16	\$1.29	\$1.43	\$10.00	\$10.00	\$0.00	\$0.00
Broward	\$293.82	\$10.15	\$10.19	\$10.55	\$0.83	\$2.84	\$4.21	\$3.82
Calhoun	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charlotte	\$4.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Citrus	\$14.50	\$0.00	\$0.00	\$0.00	\$9.19	\$0.00	\$0.00	\$0.00
Clay	\$0.00	\$0.00	\$15.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$129.37	\$31.80	\$24.20	\$9.20	\$15.79	\$33.28	\$11.06	\$3.59
Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Duval	\$3.18	\$0.13	\$0.16	\$0.20	\$438.40	\$1,480.30	\$1.20	\$1.48
Escambia	\$0.00	\$0.00	\$0.00	\$0.00	\$50.57	\$81.21	\$89.27	\$98.33
Flagler	\$2.50	\$0.00	\$0.00	\$0.00	\$14.50	\$11.20	\$0.00	\$0.00
Gadsden	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hendry	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Highlands	\$1.20	\$2.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hillsborough	\$0.00	\$0.00	\$0.00	\$0.00	\$45.00	\$20.00	\$5.00	\$5.00
Indian River	\$12.75	\$0.00	\$0.00	\$0.00	\$15.66	\$14.59	\$3.37	\$0.00
Lake	\$43.92	\$2.90	\$5.10	\$6.70	\$44.48	\$22.30	\$57.19	\$37.51
Lee	\$126.70	\$0.00	\$0.00	\$0.00	\$56.58	\$1.00	\$0.00	\$0.00
Leon	\$8.11	\$0.00	\$0.00	\$0.00	\$0.00	\$16.29	\$0.00	\$0.00
Levy	\$14.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$186.03	\$67.99	\$38.49	\$46.41	\$0.00	\$0.00	\$0.00	\$0.00
Marion	\$48.34	\$5.53	\$4.17	\$4.84	\$0.00	\$0.00	\$0.00	\$0.00
Martin	\$9.70	\$0.00	\$0.00	\$0.00	\$0.76	\$0.00	\$0.00	\$0.00
Miami-Dade	\$860.93	\$106.39	\$1.20	\$0.00	\$0.00	\$0.00	\$666.15	\$117.55
Monroe	\$8.65	\$0.00	\$0.00	\$0.00	\$40.00	\$33.00	\$0.00	\$0.00
Nassau	\$10.80	\$1.20	\$6.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Okaloosa	\$1.40	\$0.00	\$0.00	\$0.00	\$5.00	\$0.00	\$0.00	\$0.00
Okeechobee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Orange	\$108.48	\$54.83	\$9.57	\$3.20	\$4.18	\$43.77	\$46.00	\$88.35
Osceola	\$70.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Palm Beach	\$29.26	\$28.12	\$12.68	\$13.09	\$1.81	\$0.00	\$0.80	\$0.00
Pasco	\$24.52	\$145.04	\$167.46	\$194.13	\$0.00	\$210.63	\$243.02	\$281.72
Pinellas	\$47.47	\$13.00	\$11.90	\$11.98	\$8.38	\$35.00	\$58.24	\$16.46
Polk	\$24.04	\$20.67	\$0.67	\$0.68	\$50.00	\$13.99	\$0.00	\$0.00
Santa Rosa	\$18.00	\$0.00	\$0.00	\$0.00	\$1.20	\$15.00	\$0.00	\$0.00
Sarasota	\$15.38	\$18.85	\$6.53	\$7.80	\$0.90	\$0.00	\$0.00	\$0.00
Seminole	\$19.29	\$32.81	\$36.13	\$9.99	\$5.69	\$13.74	\$5.64	\$0.00
St Johns	\$172.11	\$134.91	\$127.75	\$102.90	\$2.00	\$145.47	\$188.15	\$199.21
St Lucie	\$131.91	\$27.09	\$0.00	\$0.00	\$52.41	\$11.00	\$0.00	\$0.00
Sumter	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taylor	\$0.08	\$0.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Volusia	\$5.42	\$13.42	\$3.28	\$2.93	\$41.68	\$28.00	\$2.50	\$2.50
Walton	\$4.10	\$1.30	\$0.00	\$0.00	\$0.01	\$0.06	\$0.06	\$0.06
Statewide	\$2,647.63	\$779.38	\$545.51	\$449.38	\$956.01	\$2,336.65	\$1,382.84	\$896.08

Table A.2.3 Water Quality Project Expenditure Projections Aggregated by County (in \$millions)

COUNTY	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$4.00	\$0.00	\$0.00	\$0.00	\$40.18	\$2.50	\$75.00	\$0.00
Bay	\$0.00	\$0.00	\$0.00	\$0.00	\$8.00	\$11.00	\$12.00	\$15.00
Brevard	\$10.26	\$2.75	\$2.86	\$0.99	\$22.64	\$35.50	\$9.90	\$21.00
Broward	\$13.60	\$0.80	\$1.00	\$1.55	\$11.93	\$0.50	\$0.50	\$0.50
Calhoun	\$19.19	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charlotte	\$338.73	\$31.79	\$6.25	\$6.25	\$3.00	\$69.15	\$193.32	\$95.17
Citrus	\$5.46	\$0.00	\$0.00	\$0.00	\$2.20	\$26.80	\$0.00	\$0.00
Clay	\$70.66	\$21.00	\$96.00	\$16.00	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$7.28	\$0.00	\$0.00	\$0.00	\$15.24	\$20.75	\$21.00	\$2.97
Columbia	\$5.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Duval	\$644.19	\$46.53	\$103.42	\$101.95	\$0.00	\$0.00	\$0.00	\$0.00
Escambia	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20.00	\$1.00	\$1.10
Flagler	\$5.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gadsden	\$1.79	\$0.00	\$0.00	\$0.00	\$0.00	\$0.80	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hendry	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$31.21	\$0.00	\$1.90	\$0.00	\$0.55	\$0.00	\$0.00	\$0.00
Highlands	\$10.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hillsborough	\$573.25	\$0.45	\$0.25	\$0.25	\$10.00	\$5.00	\$206.50	\$0.00
Indian River	\$0.88	\$0.00	\$0.00	\$0.00	\$80.00	\$4.50	\$0.00	\$0.00
Lake	\$60.99	\$0.15	\$0.30	\$0.50	\$14.00	\$28.63	\$1.38	\$1.38
Lee	\$123.73	\$0.00	\$320.00	\$0.00	\$204.44	\$253.20	\$25.50	\$25.50
Leon	\$10.74	\$0.00	\$0.00	\$0.00	\$0.00	\$11.46	\$0.38	\$0.00
Levy	\$6.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.03	\$0.00	\$0.00
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$13.79	\$5.13	\$9.63	\$1.13	\$0.00	\$0.00	\$0.00	\$0.00
Marion	\$146.05	\$6.82	\$8.92	\$10.34	\$2.02	\$50.25	\$5.82	\$0.00
Martin	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Miami-Dade	\$0.35	\$0.40	\$0.60	\$0.55	\$0.00	\$0.00	\$0.00	\$0.00
Monroe	\$12.89	\$0.00	\$0.00	\$0.00	\$7.63	\$0.00	\$0.00	\$0.00
Nassau	\$0.00	\$0.00	\$0.00	\$0.00	\$5.59	\$24.00	\$0.40	\$0.00
Okaloosa	\$19.97	\$0.85	\$0.43	\$0.00	\$84.44	\$35.00	\$15.00	\$2.50
Okeechobee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Orange	\$181.81	\$84.23	\$58.72	\$53.46	\$0.29	\$5.39	\$25.10	\$48.90
Osceola	\$52.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Palm Beach	\$108.71	\$0.00	\$0.00	\$1.87	\$80.57	\$49.09	\$27.62	\$28.70
Pasco	\$353.51	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$0.00	\$0.00
Pinellas	\$61.64	\$87.75	\$5.20	\$0.90	\$15.04	\$69.43	\$7.30	\$25.08
Polk	\$154.85	\$32.41	\$19.07	\$21.45	\$0.03	\$0.03	\$0.03	\$0.03
Santa Rosa	\$30.00	\$0.00	\$0.00	\$0.00	\$15.00	\$0.00	\$0.00	\$0.00
Sarasota	\$379.31	\$101.90	\$0.00	\$0.00	\$96.84	\$36.00	\$42.50	\$0.00
Seminole	\$18.06	\$11.89	\$12.05	\$28.24	\$0.00	\$0.00	\$47.24	\$15.00
St Johns	\$9.00	\$1.74	\$7.81	\$0.29	\$0.00	\$0.00	\$0.00	\$0.00
St Lucie	\$37.73	\$0.85	\$1.00	\$1.13	\$31.25	\$3.05	\$0.00	\$35.00
Sumter	\$0.40	\$6.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taylor	\$0.41	\$0.40	\$0.40	\$0.40	\$0.00	\$0.00	\$0.00	\$0.00
Volusia	\$135.67	\$186.99	\$5.95	\$0.75	\$44.35	\$83.30	\$61.30	\$108.00
Walton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.24	\$0.00	\$0.00	\$0.00
Statewide	\$3,659.95	\$630.84	\$661.75	\$248.00	\$795.56	\$845.35	\$778.78	\$425.82

Table A.2.4 Resiliency Project Expenditure Projections Aggregated by County (in \$millions)

COUNTY	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$15.38	\$19.28	\$26.50	\$30.21	\$8.53	\$4.06	\$4.00	\$4.00
Bay	\$754.00	\$0.00	\$0.00	\$0.00	\$46.00	\$21.00	\$21.00	\$21.00
Brevard	\$13.96	\$4.90	\$5.28	\$5.81	\$10.00	\$15.00	\$15.00	\$15.00
Broward	\$152.74	\$106.17	\$91.87	\$155.29	\$14.55	\$26.91	\$34.78	\$26.48
Calhoun	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charlotte	\$4.43	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Citrus	\$0.00	\$0.00	\$0.00	\$0.00	\$8.30	\$68.30	\$0.00	\$0.00
Clay	\$6.28	\$7.29	\$8.29	\$9.29	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$19.53	\$5.08	\$4.75	\$4.75	\$15.79	\$0.43	\$0.58	\$1.13
Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Duval	\$32.18	\$27.05	\$26.75	\$26.75	\$5.50	\$5.00	\$0.00	\$0.00
Escambia	\$11.07	\$0.41	\$0.44	\$0.46	\$6.56	\$3.20	\$0.00	\$0.00
Flagler	\$0.93	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gadsden	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00
Hardee	\$0.18	\$0.01	\$0.01	\$0.01	\$0.27	\$0.00	\$0.00	\$0.00
Hendry	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$4.00	\$3.60	\$3.60	\$3.60	\$0.00	\$0.00	\$0.00	\$0.00
Highlands	\$0.69	\$0.69	\$0.69	\$0.69	\$2.06	\$2.06	\$2.06	\$2.06
Hillsborough	\$0.00	\$0.00	\$0.00	\$0.00	\$0.25	\$3.28	\$0.30	\$0.33
Indian River	\$11.27	\$1.61	\$1.75	\$2.17	\$3.61	\$4.70	\$7.00	\$3.50
Lake	\$8.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Lee	\$20.58	\$0.13	\$0.13	\$0.13	\$1.40	\$5.40	\$5.40	\$5.40
Leon	\$2.25	\$0.01	\$0.01	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00
Levy	\$0.00	\$0.00	\$0.00	\$0.00	\$0.40	\$0.45	\$0.50	\$0.57
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$25.89	\$7.06	\$9.00	\$10.24	\$0.00	\$0.00	\$0.00	\$0.00
Marion	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Martin	\$0.00	\$0.00	\$0.00	\$0.00	\$3.75	\$3.75	\$3.75	\$3.75
Miami-Dade	\$675.72	\$176.31	\$9.62	\$7.35	\$25.63	\$43.13	\$1,396.88	\$247.91
Monroe	\$8.35	\$0.10	\$0.10	\$0.10	\$2.58	\$0.00	\$0.00	\$0.00
Nassau	\$0.35	\$0.00	\$0.00	\$0.00	\$5.00	\$5.00	\$5.00	\$5.00
Okaloosa	\$13.24	\$0.00	\$0.00	\$0.00	\$12.20	\$25.60	\$24.40	\$26.00
Okeechobee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Orange	\$15.98	\$1.87	\$1.23	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00
Osceola	\$4.79	\$1.48	\$1.74	\$2.02	\$0.00	\$0.00	\$0.00	\$0.00
Palm Beach	\$46.62	\$23.53	\$20.98	\$17.03	\$134.98	\$42.53	\$49.52	\$41.22
Pasco	\$1.36	\$1.43	\$1.50	\$1.58	\$4.50	\$0.00	\$4.50	\$0.00
Pinellas	\$108.35	\$28.91	\$36.33	\$25.09	\$12.48	\$16.12	\$117.03	\$53.91
Polk	\$18.72	\$2.43	\$2.28	\$2.30	\$82.21	\$25.98	\$29.26	\$32.94
Santa Rosa	\$1.50	\$0.00	\$0.00	\$0.00	\$0.25	\$0.80	\$0.00	\$0.00
Sarasota	\$9.64	\$2.85	\$2.95	\$3.05	\$0.00	\$0.00	\$0.00	\$0.00
Seminole	\$7.90	\$2.50	\$2.50	\$2.50	\$15.00	\$0.00	\$0.00	\$0.00
St Johns	\$23.38	\$12.95	\$12.86	\$14.56	\$0.00	\$0.00	\$0.00	\$0.00
St Lucie	\$4.25	\$3.25	\$3.50	\$3.75	\$0.50	\$0.50	\$0.50	\$0.50
Sumter	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taylor	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Volusia	\$9.75	\$10.73	\$11.40	\$12.21	\$11.94	\$12.31	\$43.29	\$10.36
Walton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Statewide	\$2,033.26	\$451.62	\$286.03	\$341.94	\$434.22	\$336.51	\$1,764.76	\$501.04

Table A.2.5 Reuse Development Project Expenditure Projections Aggregated by County (in \$millions)

COUNTY	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$11.29	\$8.87	\$12.49	\$14.51	\$0.00	\$0.00	\$0.00	\$100.00
Bay	\$25.30	\$10.00	\$0.00	\$0.00	\$13.00	\$28.00	\$13.00	\$13.00
Brevard	\$15.78	\$12.25	\$0.00	\$0.00	\$16.01	\$17.77	\$17.77	\$7.44
Broward	\$134.94	\$5.69	\$6.13	\$6.85	\$21.10	\$1.08	\$1.16	\$22.26
Calhoun	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charlotte	\$7.07	\$3.10	\$2.75	\$2.75	\$0.00	\$3.35	\$2.60	\$2.60
Citrus	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Clay	\$45.27	\$16.75	\$82.28	\$13.77	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$4.57	\$6.22	\$0.32	\$0.23	\$9.16	\$0.54	\$0.78	\$0.76
Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$4.50	\$0.00	\$0.00	\$0.00
Duval	\$135.48	\$77.80	\$1.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00
Escambia	\$4.50	\$0.23	\$0.24	\$0.25	\$27.00	\$45.00	\$3.60	\$3.78
Flagler	\$1.82	\$0.00	\$0.00	\$0.00	\$1.45	\$0.00	\$0.00	\$0.00
Gadsden	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3.00	\$0.00	\$0.00
Hardee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hendry	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$1.08	\$0.00	\$0.00	\$0.00	\$0.60	\$0.45	\$0.00	\$0.00
Highlands	\$0.00	\$0.00	\$0.00	\$0.00	\$5.00	\$0.00	\$0.00	\$0.00
Hillsborough	\$76.73	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Indian River	\$18.69	\$0.93	\$1.12	\$1.34	\$6.60	\$9.55	\$52.59	\$17.44
Lake	\$29.32	\$2.83	\$3.87	\$4.00	\$26.23	\$9.72	\$47.84	\$0.74
Lee	\$198.81	\$172.14	\$173.14	\$151.14	\$5.63	\$0.00	\$0.00	\$0.00
Leon	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Levy	\$0.00	\$0.00	\$0.00	\$0.00	\$8.94	\$0.00	\$0.00	\$0.00
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Manatee	\$23.08	\$92.25	\$16.72	\$6.60	\$0.00	\$0.00	\$0.00	\$0.00
Marion	\$3.47	\$0.00	\$2.17	\$0.00	\$0.00	\$0.00	\$0.87	\$0.00
Martin	\$1.26	\$0.00	\$0.00	\$0.00	\$4.80	\$3.00	\$34.00	\$0.00
Miami-Dade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$85.14	\$15.02
Monroe	\$0.11	\$0.00	\$0.00	\$0.00	\$34.83	\$1.04	\$1.20	\$2.83
Nassau	\$2.00	\$0.00	\$0.00	\$0.00	\$0.06	\$2.35	\$0.00	\$0.00
Okaloosa	\$0.46	\$0.00	\$0.00	\$0.00	\$23.76	\$3.15	\$9.62	\$0.15
Okeechobee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Orange	\$116.26	\$28.40	\$23.45	\$19.43	\$9.97	\$15.33	\$16.16	\$15.66
Osceola	\$81.21	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Palm Beach	\$24.80	\$5.90	\$1.72	\$1.76	\$87.74	\$27.46	\$15.44	\$7.00
Pasco	\$1.16	\$10.13	\$12.16	\$14.10	\$0.00	\$8.70	\$10.50	\$12.17
Pinellas	\$83.81	\$24.62	\$10.13	\$5.98	\$24.64	\$71.50	\$58.27	\$43.65
Polk	\$32.84	\$6.31	\$4.29	\$15.57	\$2.78	\$3.81	\$4.29	\$4.84
Santa Rosa	\$10.67	\$0.00	\$0.00	\$0.00	\$15.84	\$5.00	\$5.00	\$5.00
Sarasota	\$36.31	\$0.00	\$0.00	\$0.00	\$18.14	\$5.00	\$0.00	\$0.00
Seminole	\$37.30	\$16.27	\$15.05	\$4.36	\$0.00	\$0.76	\$12.04	\$6.26
St Johns	\$69.40	\$19.42	\$0.89	\$14.38	\$0.00	\$27.17	\$45.27	\$60.68
St Lucie	\$8.99	\$3.00	\$1.00	\$1.00	\$0.00	\$21.67	\$10.31	\$0.00
Sumter	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Taylor	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Volusia	\$28.08	\$4.10	\$3.00	\$3.00	\$24.99	\$49.30	\$16.50	\$19.50
Walton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Statewide	\$1,271.83	\$527.19	\$373.91	\$282.02	\$392.76	\$363.70	\$463.95	\$360.78

Table A.2.6 Septic to Sewer Conversion Project Expenditure Projections Aggregated by County (in \$millions)

COUNTY	Committed Funding Source				No Identified Funding Source			
	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42
Alachua	\$129.69	\$144.01	\$61.92	\$137.35	\$0.80	\$0.00	\$0.00	\$0.00
Bay	\$19.05	\$15.36	\$7.26	\$8.43	\$6.00	\$6.00	\$0.00	\$0.00
Brevard	\$96.54	\$62.00	\$52.03	\$39.22	\$143.10	\$161.66	\$57.52	\$30.81
Broward	\$547.77	\$211.32	\$152.63	\$89.79	\$116.77	\$110.73	\$91.39	\$107.62
Calhoun	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charlotte	\$89.42	\$24.99	\$24.40	\$24.52	\$15.56	\$0.00	\$0.00	\$0.00
Citrus	\$0.00	\$0.00	\$0.00	\$0.00	\$3.51	\$12.69	\$0.75	\$1.61
Clay	\$36.46	\$32.00	\$35.00	\$40.00	\$0.00	\$0.00	\$0.00	\$0.00
Collier	\$178.45	\$129.28	\$138.28	\$138.28	\$3.20	\$11.98	\$18.12	\$18.61
Columbia	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Duval	\$333.45	\$258.02	\$215.88	\$216.52	\$0.77	\$1.95	\$1.04	\$1.28
Escambia	\$63.91	\$35.35	\$32.75	\$30.75	\$22.73	\$31.00	\$37.50	\$300.08
Flagler	\$83.02	\$46.76	\$19.26	\$19.26	\$2.12	\$1.27	\$4.27	\$1.27
Gadsden	\$2.00	\$0.00	\$0.00	\$0.00	\$5.02	\$0.00	\$0.00	\$0.00
Hardee	\$0.81	\$0.42	\$0.27	\$0.27	\$5.06	\$1.37	\$6.74	\$0.31
Hendry	\$2.64	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hernando	\$2.04	\$0.20	\$0.00	\$0.00	\$0.68	\$1.20	\$1.15	\$0.00
Highlands	\$5.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Hillsborough	\$521.86	\$395.52	\$609.34	\$786.15	\$35.10	\$23.00	\$25.00	\$28.00
Indian River	\$5.65	\$4.20	\$4.29	\$7.59	\$1.00	\$4.57	\$62.96	\$73.79
Lake	\$31.74	\$24.48	\$21.70	\$21.62	\$4.54	\$4.49	\$4.59	\$4.74
Lee	\$210.73	\$95.70	\$82.68	\$105.71	\$160.96	\$50.05	\$6.68	\$6.68
Leon	\$42.68	\$15.00	\$15.00	\$15.00	\$0.00	\$40.17	\$0.00	\$0.00
Levy	\$2.78	\$3.11	\$3.50	\$3.94	\$12.95	\$7.43	\$3.90	\$4.34
Liberty	\$0.00	\$0.00	\$0.00	\$0.00	\$4.00	\$0.00	\$0.00	\$0.00
Manatee	\$184.16	\$301.68	\$146.28	\$122.18	\$0.00	\$110.10	\$176.38	\$185.85
Marion	\$35.64	\$5.16	\$5.75	\$6.43	\$30.96	\$17.89	\$3.37	\$0.26
Martin	\$25.92	\$10.31	\$7.03	\$2.90	\$31.50	\$18.19	\$2.85	\$2.10
Miami-Dade	\$1,598.03	\$272.73	\$6.76	\$6.66	\$66.82	\$106.90	\$3,266.42	\$584.87
Monroe	\$24.44	\$21.17	\$17.83	\$17.83	\$57.78	\$34.83	\$98.71	\$411.06
Nassau	\$9.42	\$1.68	\$2.99	\$1.54	\$7.47	\$25.90	\$3.00	\$2.70
Okaloosa	\$25.34	\$14.64	\$13.42	\$12.05	\$6.75	\$38.95	\$8.54	\$6.65
Okeechobee	\$0.76	\$0.85	\$0.96	\$1.05	\$0.00	\$0.00	\$0.00	\$0.00
Orange	\$263.66	\$129.46	\$150.16	\$164.66	\$25.93	\$78.19	\$60.64	\$45.65
Osceola	\$52.42	\$6.71	\$4.39	\$5.10	\$0.00	\$0.00	\$0.00	\$0.00
Palm Beach	\$211.79	\$94.25	\$81.73	\$65.81	\$335.53	\$310.29	\$293.80	\$336.77
Pasco	\$169.96	\$170.36	\$194.34	\$221.88	\$15.40	\$18.55	\$12.65	\$12.45
Pinellas	\$721.81	\$267.78	\$223.48	\$271.08	\$26.72	\$53.09	\$127.84	\$92.09
Polk	\$84.16	\$33.54	\$26.04	\$32.44	\$33.42	\$63.47	\$12.65	\$91.14
Santa Rosa	\$66.42	\$21.74	\$7.07	\$7.43	\$23.81	\$11.00	\$7.00	\$6.00
Sarasota	\$139.87	\$70.50	\$81.85	\$69.75	\$51.24	\$18.77	\$10.71	\$11.59
Seminole	\$183.78	\$78.34	\$91.36	\$87.90	\$7.07	\$38.05	\$57.59	\$23.77
St Johns	\$60.96	\$24.14	\$38.64	\$37.95	\$3.10	\$3.50	\$14.00	\$0.00
St Lucie	\$24.30	\$7.45	\$1.85	\$1.85	\$30.35	\$24.86	\$10.16	\$97.46
Sumter	\$42.93	\$29.90	\$49.78	\$37.89	\$39.22	\$0.00	\$0.00	\$0.00
Taylor	\$0.50	\$0.50	\$0.50	\$0.50	\$0.09	\$0.09	\$0.09	\$0.09
Volusia	\$62.37	\$41.30	\$46.20	\$47.05	\$57.58	\$47.97	\$58.01	\$50.92
Walton	\$0.02	\$0.00	\$0.00	\$0.00	\$0.03	\$0.02	\$0.02	\$0.02
Statewide	\$6,394.82	\$3,101.90	\$2,674.60	\$2,906.30	\$1,394.63	\$1,490.17	\$4,546.02	\$2,540.55

Table A.2.7 Project Expenditures for Government Types and Location by Project Subcategory

Project Category	Subcategory	Coastal County	Coastal Municipality	Coastal Districts	Inland County	Inland Municipality	Inland Districts	Statewide
Effluent Management	s. 403.064(17), F.S. (Surface Water Discharge Elimination)	\$2,228.46	\$396.88	\$150.60	\$0.00	\$79.20	\$0.00	\$2,855.13
	s. 403.086(10), F.S. (Ocean Outfalls Legislation)	\$1,830.89	\$120.45	\$0.00	\$0.00	\$6.80	\$0.00	\$1,958.14
	Clean Waterways Act	\$5.25	\$14.95	\$324.39	\$24.47	\$53.21	\$3.99	\$426.26
	2016 Springs And Aquifer Protection Act	\$0.00	\$0.00	\$0.00	\$0.00	\$31.00	\$0.00	\$31.00
	Other	\$2,745.30	\$848.33	\$119.99	\$172.75	\$740.57	\$96.01	\$4,722.94
Water Quality	Biosolids	\$235.13	\$110.56	\$4.15	\$19.90	\$215.55	\$36.25	\$621.53
	Advanced Wastewater Treatment	\$3,290.16	\$1,045.94	\$318.20	\$128.65	\$321.07	\$257.82	\$5,361.83
	Surface Water Discharge	\$30.61	\$19.45	\$0.00	\$0.00	\$73.12	\$0.00	\$123.18
	Nutrient Removal	\$68.78	\$319.15	\$22.65	\$45.15	\$84.67	\$19.15	\$559.55
	Other	\$553.76	\$208.67	\$46.50	\$36.66	\$387.29	\$147.06	\$1,379.96
Resiliency	Severe Storm Impact / Mitigation	\$1,959.25	\$1,235.40	\$49.16	\$6.31	\$91.13	\$17.90	\$3,359.15
	Inland Flooding	\$26.25	\$10.48	\$2.96	\$0.00	\$96.98	\$0.00	\$136.67
	Reduce Inflow / Infiltration	\$506.75	\$780.67	\$54.73	\$2.75	\$267.59	\$31.82	\$1,644.31
	Sea Level Rise	\$463.36	\$108.84	\$2.58	\$0.00	\$13.40	\$0.00	\$588.17
	Drought	\$0.00	\$0.00	\$0.00	\$0.00	\$20.08	\$0.00	\$20.08
	Other	\$58.46	\$73.45	\$24.32	\$18.98	\$225.80	\$0.00	\$401.01
Reuse Development	Expansion Of Existing Reuse Systems	\$642.73	\$1,096.83	\$62.57	\$78.20	\$516.33	\$183.10	\$2,579.76
	Aquifer Recharge	\$18.48	\$11.10	\$0.00	\$3.50	\$19.52	\$0.00	\$52.60
	Potable Reuse Projects	\$2.59	\$200.10	\$12.00	\$0.00	\$101.50	\$34.09	\$350.28
	Creation Of New Reuse Systems	\$453.09	\$104.44	\$73.99	\$4.50	\$80.65	\$34.40	\$751.07
	Other	\$145.45	\$105.53	\$36.30	\$6.13	\$8.04	\$0.99	\$302.43
End of Useful Life Replacement	Treatment Facility	\$4,648.18	\$2,531.80	\$380.97	\$102.97	\$1,285.81	\$167.16	\$9,116.89
	Collection System (Pipes)	\$4,375.62	\$2,813.97	\$998.76	\$81.75	\$1,622.26	\$45.63	\$9,938.00
	Lift Station Or Component	\$1,679.99	\$1,435.77	\$171.90	\$85.07	\$670.14	\$160.94	\$4,203.80
	Other	\$932.00	\$576.08	\$7.29	\$31.29	\$127.03	\$116.60	\$1,790.29
Septic to Sewer Conversions	Utility Expenditures	\$5,678.87	\$1,390.98	\$176.71	\$555.40	\$1,052.12	\$158.57	\$9,012.65
Total		\$32,579.37	\$15,559.84	\$3,040.71	\$1,404.42	\$8,190.86	\$1,511.49	\$62,286.68

[Table continued on next page.]

Project Category	Subcategory	Coastal County	Coastal Municipality	Coastal Districts	Inland County	Inland Municipality	Inland Districts	Statewide
Effluent Management	s. 403.064(17), F.S. (Surface Water Discharge Elimination)	4%	1%	0%	0%	0%	0%	5%
	s. 403.086(10), F.S. (Ocean Outfalls Legislation)	3%	0%	0%	0%	0%	0%	3%
	Clean Waterways Act	0%	0%	1%	0%	0%	0%	1%
	2016 Springs And Aquifer Protection Act	0%	0%	0%	0%	0%	0%	0%
	Other	4%	1%	0%	0%	1%	0%	8%
Water Quality	Biosolids	0%	0%	0%	0%	0%	0%	1%
	Advanced Wastewater Treatment	5%	2%	1%	0%	1%	0%	9%
	Surface Water Discharge	0%	0%	0%	0%	0%	0%	0%
	Nutrient Removal	0%	1%	0%	0%	0%	0%	1%
	Other	1%	0%	0%	0%	1%	0%	2%
Resiliency	Severe Storm Impact / Mitigation	3%	2%	0%	0%	0%	0%	5%
	Inland Flooding	0%	0%	0%	0%	0%	0%	0%
	Reduce Inflow / Infiltration	1%	1%	0%	0%	0%	0%	3%
	Sea Level Rise	1%	0%	0%	0%	0%	0%	1%
	Drought	0%	0%	0%	0%	0%	0%	0%
	Other	0%	0%	0%	0%	0%	0%	1%
Reuse Development	Expansion Of Existing Reuse Systems	1%	2%	0%	0%	1%	0%	4%
	Aquifer Recharge	0%	0%	0%	0%	0%	0%	0%
	Potable Reuse Projects	0%	0%	0%	0%	0%	0%	1%
	Creation Of New Reuse Systems	1%	0%	0%	0%	0%	0%	1%
	Other	0%	0%	0%	0%	0%	0%	0%
End of Useful Life Replacement	Treatment Facility	7%	4%	1%	0%	2%	0%	15%
	Collection System (Pipes)	7%	5%	2%	0%	3%	0%	16%
	Lift Station Or Component	3%	2%	0%	0%	1%	0%	7%
	Other	1%	1%	0%	0%	0%	0%	3%
Septic to Sewer Conversions	Utility Expenditures	9%	2%	0%	1%	2%	0%	14%
Total		52%	25%	5%	2%	13%	2%	100%

Appendix A.3 Supplemental Drinking Water Data

	A	B	C	D	E	F	G	H	I																																																																																														
1																																																																																																							
2	DWINSA Capital Improvement Estimate for Florida																																																																																																						
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4		<table border="1"> <thead> <tr> <th>Category</th> <th>2021 DWINSA</th> </tr> </thead> <tbody> <tr> <td>Distribution / Transmission</td> <td>\$17,615.20</td> </tr> <tr> <td>Treatment</td> <td>\$5,135.60</td> </tr> <tr> <td>Storage</td> <td>\$1,778.10</td> </tr> <tr> <td>Source</td> <td>\$1,454.80</td> </tr> <tr> <td>Other</td> <td>\$765.90</td> </tr> <tr> <td>Total</td> <td>\$26,749.60</td> </tr> </tbody> </table>		Category	2021 DWINSA	Distribution / Transmission	\$17,615.20	Treatment	\$5,135.60	Storage	\$1,778.10	Source	\$1,454.80	Other	\$765.90	Total	\$26,749.60																																																																																						
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12	DWINSA is all based in 2021 dollars. To adjust for inflation throughout the period, using the same growth rate schedule provided for SW&WW needs analysis submissions:																																																																																																						
13																																																																																																							
14	Assumption: 5% of DWINSA estimate is spent annually. 2021 is 5% of estimate, years after are adjusted for inflation.																																																																																																						
15	Then, take 25% of one year and 75% of the next to estimate local fiscal year.																																																																																																						
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Local	Estimate
2022 - 2023	\$1,390.99
2023 - 2024	\$1,419.96
2024 - 2025	\$1,449.96
2025 - 2026	\$1,481.01
2026 - 2027	\$1,513.88
2027 - 2028	\$1,549.10
2028 - 2029	\$1,586.60
2029 - 2030	\$1,625.44
2030 - 2031	\$1,664.41
2031 - 2032	\$1,703.95
2032 - 2033	\$1,744.74
2033 - 2034	\$1,786.74
2034 - 2035	\$1,829.70
2035 - 2036	\$1,873.53
2036 - 2037	\$1,918.41
2037 - 2038	\$1,964.44
2038 - 2039	\$2,011.59
2039 - 2040	\$2,059.85
2040 - 2041	\$2,109.24
2041 - 2042	\$2,159.83

	A	B	C	D	E	F	G	H	I
43									
44		Five Year Aggregates							
45									
46		Aggregate forecast into the same five year increments the SW and WW needs analyses used.							
47									
48			2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42			
49		DWINSAs Adjusted Forecast (Capital Improvement)	\$7,255.79	\$8,129.50	\$9,153.12	\$10,304.96			
50									
51		Estimate O&M Using Multiplier							
52									
53		The DWINSAs estimate only contains capital expenditures.							
54		Using EDR's Drinking Water Survey expenditure proportions, calculate a multiplier for all expenditures.							
55		Add together O&M and Capital Improvement to calculate the 20-year forecast.							
56									
57									
58		5-Year DW Expenditure Breakdown		O&M	Capital Improvement	Other	Total		
59		Average		63.9%	22.1%	14.0%	100.0%		
60									
61		Multiplier for DWINSAs capital improvement:		4.521417831					
62									
63		DW Capital Improvement & O&M Forecast							
64			2022-23 to 2026-27	2027-28 to 2031-32	2032-33 to 2036-37	2037-38 to 2041-42	20-Year Total		
65		O&M	\$20,969.62	\$23,494.71	\$26,453.02	\$29,781.88	\$100,699.24		
66		Capital Improvement	\$7,255.79	\$8,129.50	\$9,153.12	\$10,304.96	\$34,843.37		
67		Total of O&M + Cap Imp	\$28,225.41	\$31,624.22	\$35,606.14	\$40,086.84	\$135,542.60		
68									
69		Other	\$4,581.04	\$5,132.67	\$5,778.94	\$6,506.17	\$21,998.82		
70		Total (including other)	\$32,806.45	\$36,756.89	\$41,385.08	\$46,593.01	\$157,541.42		
71									