

WATER SUPPLY DEVELOPMENT PROJECT OPTIONS

As part of the minimum flows and levels (MFLs) prevention and recovery strategy development process, it is possible that water supply development projects may be needed. The St. Johns River Water Management District (SJRWMD) ongoing water supply planning process has identified water supply options to assist in providing future water supply (Table 1).

The possible locations of multijurisdictional water supply development project options and single-entity water supply development project options are shown in Figures 1 and 2.

The water supply development options (Table 1) could be used by the MFLs prevention and recovery strategy development process or additional options could be proposed and evaluated by SJRWMD. The implementation of one or more of these project options or other project options identified in the strategy development process could be an element(s) in the prevention and recovery strategy for water bodies with adopted minimum flows and levels.

Table 1. Quantities of water and estimated costs of alternative water supply development projects

Project Number	Project Name	Source Water Type	Average Daily Flow (mgd)	Construction (\$M)	Total Capital (\$M)	O and M (\$M)	Production (\$/1,000 gallons)
3	Melbourne Reverse Osmosis (RO) Plant Expansion Project	Brackish Groundwater Source for Potable Use	2.50	\$7.30	\$8.76	\$2.82	\$3.54
7	Lower Ocklawaha River in Putnam County Project A	Surface Water for Potable Use	20.00	\$201.00	\$266.00	\$5.79	\$3.16
8	St. Johns River Near SR 50 Project	Surface Water for Potable Use	10.00	\$76.00	\$95.00	\$4.35	\$3.01
10	St. Johns River Near DeLand Project	Surface Water for Potable Use	64.20	\$563.00	\$703.00	\$52.20	\$4.23
12	St. Johns River/Taylor Creek Reservoir Water Supply Project	Surface Water for Potable Use	54.00	\$521.70	\$647.30	\$43.54	\$4.46
13	Indian River Lagoon at FPL Cape Canaveral Power Plant Project	Seawater Source for Potable Use	15.00	\$111.00	\$140.00	\$7.51	\$3.43
14	Indian River Lagoon at Reliant Energy Power Plant Project	Seawater Source for Potable Use	15.00	\$113.00	\$141.00	\$8.10	\$3.57
17	Altamonte Springs and Apopka Project APRICOT	Reclaimed Water Source	6.63	\$9.33	\$13.52	\$0.20	\$0.46
18	Apopka and Winter Garden Reuse Partnership Project	Reclaimed Water Source	3.00	\$5.21	\$6.25	\$0.07	\$0.38
20	Beverly Beach Integrated Reclaimed Water and Stormwater Reuse Project, Phase II	Reclaimed Water Source	0.50	\$2.20	\$2.64	\$0.05	\$1.28
21	Clermont Reclaimed and Stormwater System Expansion Project	Reclaimed Water Source	5.10	\$15.60	\$22.68	\$0.92	\$1.28
23	Daytona Beach Reclaimed Water System Project	Reclaimed Water Source	26.00	\$19.01	\$25.41	\$1.83	\$0.36
24	DeLand Reclaimed Water and Surface Water Augmentation Project	Reclaimed Augmentation Source	1.70	\$4.83	\$5.55	\$0.33	\$1.15
25	Eastern Orange and Seminole Counties Regional Reuse Project	Reclaimed Water Source	20.00	\$32.99	\$39.58	\$0.36	\$0.32
26	Edgewater Reclaimed Water System Interconnect to Southeast Volusia County Project	Reclaimed Water Source	1.00	\$5.38	\$6.30	\$0.15	\$1.49
28	Flagler County Bulow Reclaimed Water System Project	Reclaimed Water Source	1.70	\$1.48	\$2.14	\$0.19	\$0.53
30	Lady Lake Phase II Reclaimed Water System	Reclaimed Water Source	0.26	\$0.40	\$2.20	\$0.23	\$2.05
35	Mount Dora Country Club Golf Course Reclaimed Water Project	Reclaimed Water Source	0.26	\$0.40	\$0.48	\$0.02	\$0.49
36	North Seminole Regional Reclaimed Water and Surface Water Optimization System Expansion and Optimization Project	Reclaimed Augmentation Source	7.76	\$10.30	\$8.78	\$0.51	\$0.43
38	Orange County Northwest Reclaimed Water Project	Reclaimed Water Source	3.00	\$10.00	\$10.25	\$0.30	\$0.87
39	Orange County Southeastern Reclaimed Water System Expansion	Reclaimed Water Source	6.50	\$7.62	\$13.21	\$0.35	\$0.27
40	Orlando Utilities Commission Project RENEW	Reclaimed Water Source	9.20	\$43.20	\$62.75	\$1.61	\$1.66
42	Ormond Beach South Peninsula Reuse Improvement Project	Reclaimed Water Source	0.85	\$11.00	\$13.20	\$0.00	\$12.94
44	Port Orange Airport Road Reclaimed Water Transmission Main Project	Reclaimed Water Source	2.00	\$1.33	\$1.53	\$0.18	\$0.38
45	Port Orange Pioneer Trail Storage and Pumping Facility Project	Reclaimed Water Source	2.00	\$1.75	\$2.24	\$0.18	\$0.44
50	Tavares Reclaimed Water Treatment System Expansion Project	Reclaimed Water Source	1.08	\$4.36	\$5.06	\$0.20	\$1.27
51	Volusia County Southwest Reclaimed Water System Project	Reclaimed Water Source	0.25	\$2.00	\$2.40	\$0.02	\$1.46
53	Winter Garden Reclaimed Water Pumping and Transmission Project	Reclaimed Water Source	2.40	\$21.36	\$21.36	\$0.50	\$1.39
54	Lake Apopka Reuse Augmentation Project	Reclaimed Augmentation Source	5.00	\$22.28	\$27.59	\$0.43	\$1.22
55	Seminole County Yankee Lake Reclaimed Water System Augmentation Project	Reclaimed Augmentation Source	10.00	\$48.00	\$57.60	\$3.16	\$1.26
56	University of Central Florida (UCF) Reclaimed Water and Stormwater Integration Project	Reclaimed Water Source	2.00	\$0.79	\$0.65	\$0.05	\$0.50
58	Winter Springs - Lake Jessup Reclaimed Water Augmentation Project	Reclaimed Augmentation Source	2.23	\$7.70	\$8.50	\$0.20	\$2.07

Table 1—Continued

Project Number	Project Name	Source Water Type	Average Daily Flow (mgd)	Construction (\$M)	Total Capital (\$M)	O and M (\$M)	Production (\$/1,000 gallons)
61	Lower Ocklawaha River in Marion County Project	Surface Water for Potable Use	83.85	\$623.00	\$811.00	\$40.14	\$3.04
62	Sanford ASR Well for Surface Potable Water Storage Project	Surface Water for Potable Use	1.00	\$2.87	\$4.17	\$0.18	
63	Sanford Surface WTP on Lake Monroe Project	Surface Water for Potable Use	4.00	\$9.50	\$13.80	\$0.37	\$0.62
64	St. Johns River Near SR 46 Project	Surface Water for Potable Use	63.10	\$501.15	\$629.00	\$51.51	\$4.07
65	St. Johns River Near Yankee Lake Project	Surface Water for Potable Use	86.33	\$135.00	\$741.00	\$60.00	\$3.59
66	Coquina Coast Seawater Desalination Project A	Seawater Source for Potable Use	25.00	\$452.28	\$542.73	\$19.25	\$6.73
67	Heathrow Boulevard Reclaimed Water Transmission Main Project	Reclaimed Water Source	2.50	\$1.50	\$2.10	\$0.00	\$0.15
68	Markham Woods Road Reclaimed Water Transmission Main Project	Reclaimed Water Source	3.00	\$3.40	\$4.90	\$0.00	\$0.29
69	Orange Boulevard Reclaimed Water Transmission Main Project	Reclaimed Water Source	2.50	\$0.35	\$0.50	\$0.00	\$0.04
70	Oviedo Reclaimed Water Project	Reclaimed Water Source	1.50	\$4.50	\$6.50	\$0.00	\$0.76
71	Seminole County Residential Reclaimed Water Retrofit Project - Phase 1	Reclaimed Water Source	1.09	\$3.40	\$4.80	\$0.00	\$0.76
72	Seminole County/Sanlando Utilities Interconnect with Altamonte Springs Project	Reclaimed Water Source	3.80	\$4.40	\$6.40	\$0.00	\$0.29
73	Spruce Creek Golf and Country Club Reclaimed Water Project	Reclaimed Water Source	0.55	\$1.59	\$1.83	\$0.12	\$0.99
74	Timacuan Reclaimed Water Main Upgrade Project	Reclaimed Water Source	2.90	\$0.70	\$1.00	\$0.00	\$0.05
75	West Melbourne - Reuse Distribution System Improvements Project	Reclaimed Water Source	2.48	\$3.10	\$3.72	\$0.30	\$2.29
76	Western Ormond Beach Reclaimed Water Distribution Project	Reclaimed Water Source	1.50	\$4.37	\$4.95	\$0.89	\$3.33
77	Nova Canal Reclaimed Augmentation Project	Reclaimed Augmentation Source	9.40	\$41.30	\$46.00	\$0.27	\$1.05
78	Sanford and Volusia Interconnect Reclaimed/Augmentation Project	Reclaimed Water Source	2.00	\$1.68	\$3.36	\$0.04	\$0.96
79	St. Johns River Near SR 46 - Non-Potable With Storage Project	Reclaimed Augmentation Source	6.90	\$21.03	\$28.66	\$0.02	\$0.72
81	City of Flagler Beach Reclaimed Water Treatment System Project	Reclaimed Water Source	0.75	\$4.02	\$4.80	\$0.09	\$1.97
82	Securing Minneola's Alternative Resources for Tomorrow (SMART) Project	Reclaimed Augmentation Source	5.00	\$25.00	\$26.70	\$2.50	\$5.00
83	Silver Springs Citrus Industrial Waste for Reuse Blending and Augmentation Project	Reclaimed Augmentation Source	0.35	\$3.15	\$3.58	\$0.32	\$2.94
84	City of Ocoee Northwest Reuse Re-Pump Station and Interconnection Mains Project	Reclaimed Water Source	1.20	\$2.30	\$2.87	\$0.23	\$0.23
85	Lower St. Johns River Regional Seawater Desalination Project	Seawater Source for Potable Use	65.28	\$816.00	\$1,059.00	\$53.80	\$4.87
86	Lower Ocklawaha River in Putnam County Project B	Surface Water for Potable Use	60.60	\$624.00	\$974.00	\$13.80	\$3.07
87	St. Marys River Project	Surface Water for Potable Use	33.00	\$179.00	\$306.00	\$6.87	\$2.05
88	Black Creek Project	Surface Water for Potable Use	24.00	\$228.00	\$305.00	\$5.77	\$2.65
89	JEA Reclaimed Water Injection Project	Reclaimed Water Source	58.50	\$587.00	\$702.18	\$14.31	\$4.89
90	Lower St. Johns River Basin Reuse Expansion Project	Reclaimed Water Source	110.00	\$1,039.00	\$1,242.00	\$21.00	\$2.34
91	St. Johns River Near Lake Harney Project	Surface Water for Potable Use	6.37	\$160.00	\$201.00	\$4.74	\$7.11
92	Coquina Coast Seawater Desalination Project B	Seawater Source for Potable Use	38.60	\$666.00	\$839.00	\$28.90	\$5.53
93	Indian River Farms Water Control District Upper Middle Pools Raw Water Supply for Potable Water Project	Surface Water for Potable Use	37.00	\$376.00	\$443.00	\$40.00	\$4.93
96	City of Palm Coast WTP No. 2 Zero Liquid Discharge (ZLD)	Other	0.86	\$6.28	\$7.28	\$0.84	\$2.63

Table 1—Continued

Project Number	Project Name	Source Water Type	Average Daily Flow (mgd)	Construction (\$M)	Total Capital (\$M)	O and M (\$M)	Production (\$/1,000 gallons)
97	Orange City Reuse Augmentation Project at Mill Lake	Reclaimed Augmentation Source	1.00	\$3.00	\$3.60	\$0.05	\$0.07
98	Lower Ocklawaha River in Putnam County Project C (previously known as Lower Ocklawaha River Near Rodman Reservoir Project)	Surface Water for Potable Use	6.00	\$56.15	\$71.50	\$1.39	\$3.64
100	JEA: Ocean Desalination Plant at Ridenour Water Treatment Plant (WTP)	Seawater Source for Potable Use	30.00	\$397.00	\$486.50	\$34.42	\$5.85
101	Volusia County - Deep Creek and Lake Ashby ASR Project	Surface Water for Potable Use	12.00	\$85.00	\$123.00	\$7.70	\$5.61
102	Volusia County - Deep Creek and Lake Ashby Reservoir Project	Surface Water for Potable Use	7.50	\$101.00	\$147.00	\$5.55	\$5.47
103	JEA Reclaimed Water Project- Development Driven - Rivertown	Reclaimed Water Source	0.60	\$0.87	\$1.09	\$0.04	\$0.40
104	JEA Reclaimed Water Project- Arlington East WWTP 2.0 MGD Reuse Capacity Addition	Reclaimed Water Source	2.00	\$0.55	\$0.69	\$0.07	\$0.17
105	JEA Reclaimed Water Project- South Hampton - Cimarron Golf Course to South Hampton Golf Course	Reclaimed Water Source	0.40	\$0.34	\$0.42	\$0.02	\$0.35
106	JEA Reclaimed Water Project- 9A - 9B Reclaimed Water Storage and Pumping System	Reclaimed Water Source	2.81	\$24.00	\$30.00	\$2.10	\$2.13
107	St. Johns River Near Julington Creek/ Fruit Cove Project	Surface Water for Potable Use	20.00	\$149.13	\$192.83	\$14.39	\$3.55
108	Umatilla Stormwater Treatment and Reuse Augmentation Project	Reclaimed Augmentation Source	0.30	\$1.60	\$1.80	\$0.00	\$1.20
109	City of Mount Dora Thrill Hill Reclaimed Water Reservoir	Reclaimed Water Source	6.0	\$9.90	\$15.34	\$0.24	\$0.94
110	West Volusia Water Suppliers (WVWS) Aquifer	Surface Water for Potable Use	4.00	\$5.00	\$8.20	\$0.50	\$0.79
111	Deltona Lakes Pump Station, Transmission Main and Treatment System	Reclaimed Augmentation Source	4.00	\$14.59	\$14.59	\$1.64	\$1.90
112	East West Volusia Alternative Water Sources	Reclaimed Water Source	8.00	\$25.13	\$28.13	\$0.42	\$0.83
113	West Volusia Reclaimed Water Interconnects	Reclaimed Water Source	2.00	\$9.91	\$9.91	\$0.05	\$0.92
114	West Volusia Reclaimed Water Transmission Mains	Reclaimed Water Source	2.00	\$8.17	\$8.17	\$0.05	\$0.95
115	Stormwater Recovery for Process Water Use	Reclaimed Water Source	0.08	\$0.06	\$0.07		\$0.17

Note:

mgd = million gallons per day

O and M = operation and maintenance

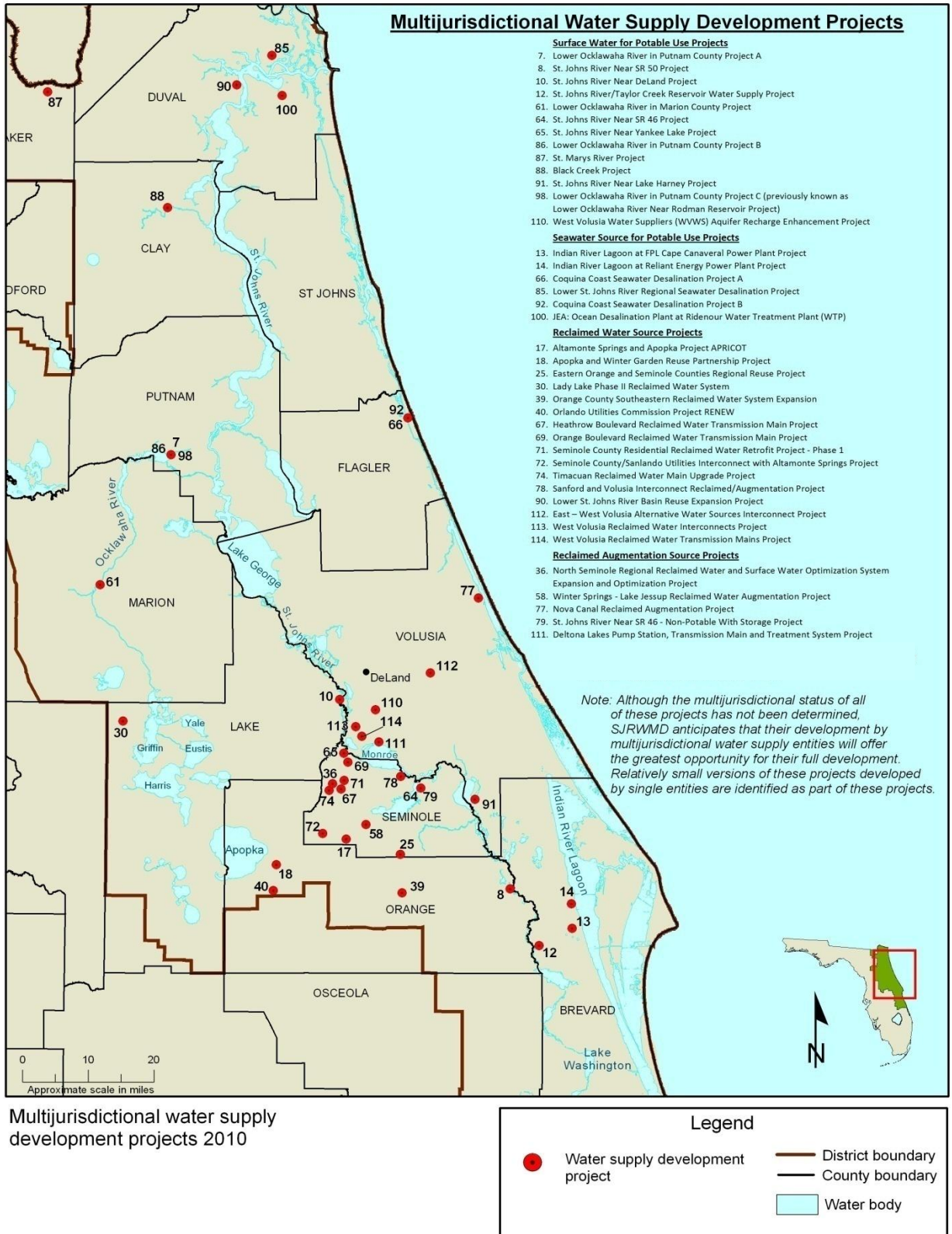


Figure 1. Multijurisdictional water supply development project options

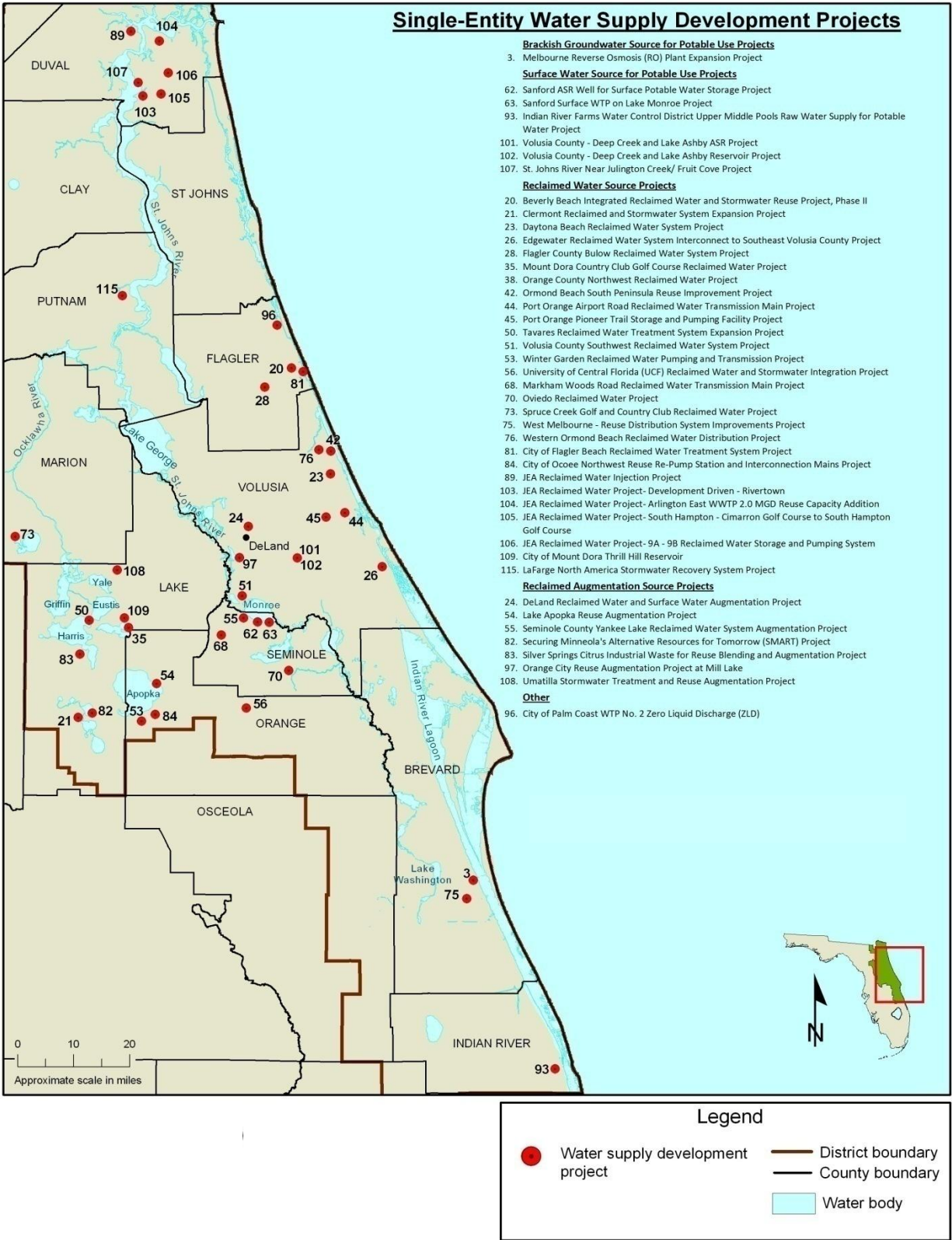


Figure 2. Single-entity water supply development project options