

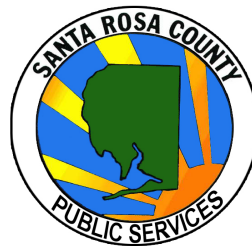
The Santa Rosa County Community Planning and Zoning Division has prepared this Report as required by Santa Rosa County Ordinance No. 2001 03. The purpose of this report is to provide the Board of County Commissioners with an opportunity to annually monitor the capacities of the utility systems operating within the County. According to the Ordinance, each utility is to survey present operations and determine its capacity to meet present needs and projected future needs for a period of not less than ten years. The main intent is to determine whether or not the utilities will be able to adequately serve the needs of future growth.

2018 Utility Operational Status Report

Santa Rosa County
Community Planning, Zoning
& Development

Prepared By: Cynthia Cannon, AICP

April 2019



Introduction:

With the cooperation of the utilities, the Florida Department of Environmental Protection, and Northwest Florida Water Management District, the Santa Rosa County Community Planning and Zoning Division has prepared the 2018 Utility Operational Status Report as required by Santa Rosa County Ordinance No. 2001-03. The purpose of this report is to provide the Board of County Commissioners with an opportunity to annually monitor the capacities of the utility systems operating within the County. Per the County Ordinance, each utility is to survey present operations and determine its capacity to meet present needs and projected future needs for a period of not less than ten years. The main intent is to determine whether or not the utilities will be able to adequately serve the needs of future growth. This report contains a current capacity analysis through the year 2040.

It should be noted that regulatory authority in regards to capacity is monitored and permitted by the Florida Department of Environmental Protection and the Northwest Florida Water Management District.

Centralized Water and Sewer Service Provision in Santa Rosa County:

Santa Rosa County is a partially rural county with urban development occurring in the southern portion of the County, the Pace area, and in areas near and around the City of Milton. Demand for potable water and sewer is driven mostly by this increased urbanization and the need for higher development densities and intensities. As such, water and sewer services are essential for economic development, environmental protection, and for fire protection as is the case with centralized water. These are also essential services that provide convenience and assurance to the residents of the County. In addition, eighty-eight percent of industry respondents rated infrastructure quality as a top or very important consideration when determining where real estate investments are made, ahead even of consumer demand. (Infrastructure 2014: Shaping the Competitive City, Urban Land Institute)

Potable water in Santa Rosa County is provided by one County, four municipal and ten privately owned systems under franchise agreements with the County, two of the four municipal systems service the Gulf Breeze area and are both administered by the City of Gulf Breeze (Map 1-1). Each of these systems are operated independently and are responsible for such items as financial stability, meeting state level requirements, and ensuring the availability of water to meet future demands. These water utilities, populations served, and the number of commercial and residential service connections are shown in Table 1. The Town of Jay, Navarre Beach and the southern end of the County are nearly 100% connected to a centralized potable water provider.

Table 1: 2018 Population Served by Water Franchise Area and % Connected	Population Served	Commercial Connections	Residential Connections	% Connected Commercial	% Connected Residential
Water Utility					
Bagdad Garcon Point Water System	6,325	77	2414	108%	93%
Berrydale Water System	2,287	17	873	15%	69%
Chumuckla Water System	3,920	28	1496	31%	63%
East Milton Water System	10,417	151	3976	38%	83%
Fairpoint Regional Utility System	NA	NA	NA	NA	NA
Gulf Breeze Utility Department	6,199	275	2366	55%	89%
South Santa Rosa Utilities	11,355	138	4334	75%	110%
Holley Navarre Water System	41,687	487	15911	66%	93%
Jay Utility Department	1,127	93	430	50%	95%
Midway Water System	16,506	273	6300	35%	77%
Milton Utility Department	18,754	738	7158	59%	85%
Moore Creek / Mount Carmel Water System	3,010	14	1149	23%	78%
Navarre Beach Water and Sewer Dept.	5,840	10	2229	14%	162%
Pace Water System	39,224	617	14971	53%	90%
Point Baker Water System	9,681	33	3695	26%	84%

The remaining development in the County has a private well source for potable water. Existing residential development within these franchise areas is currently utilizing centralized water ranging between 60% to 100%, depending on franchise area, and the remaining existing development is utilizing septic tanks or onsite systems (Table 1).

Map 1-1 Santa Rosa County Water Franchise Areas

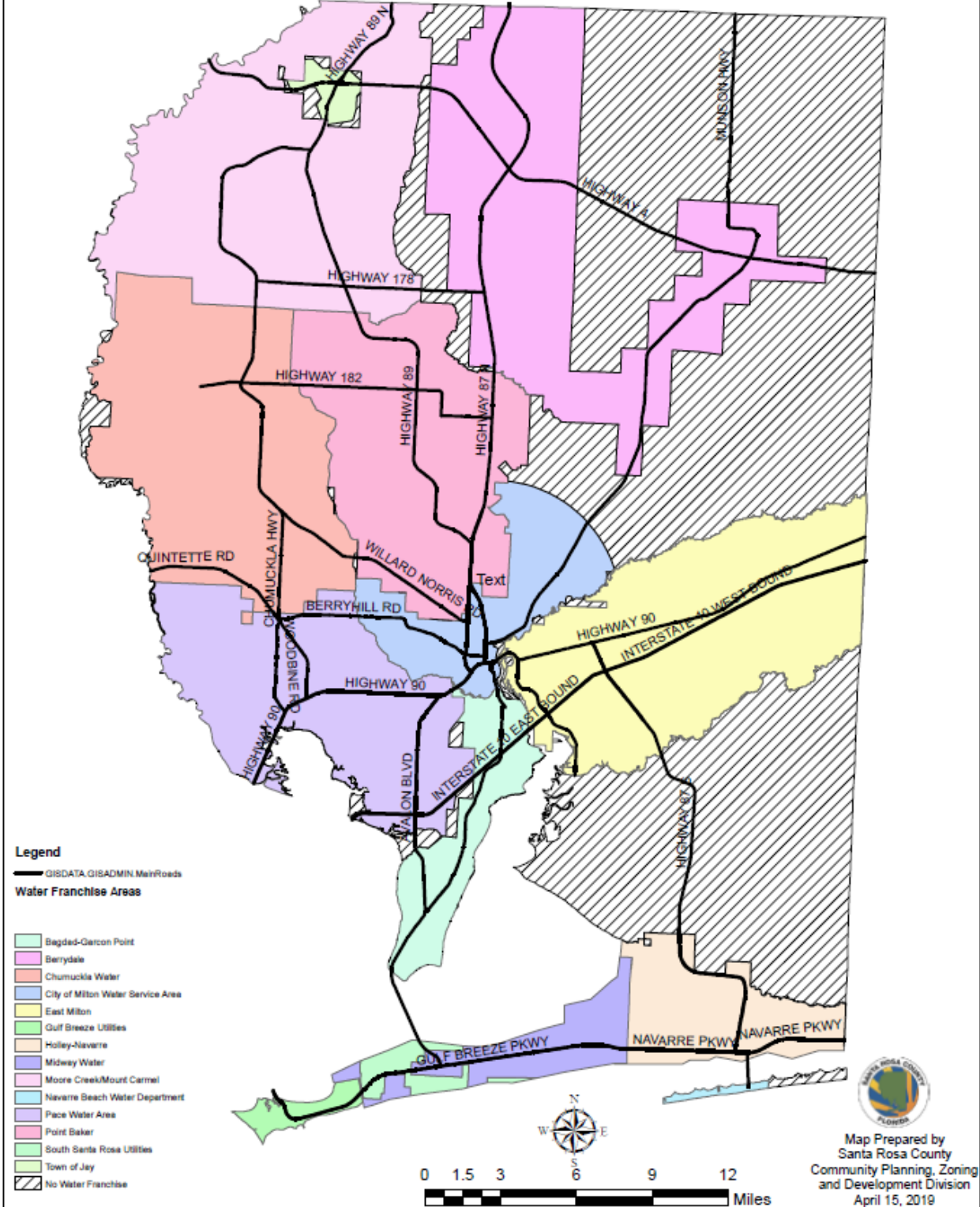


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Sanitary Sewer in Santa Rosa County is provided by the County (Navarre Beach), the City of Milton, the City of Jay, the City of Gulf Breeze, Holley-Navarre Water System, Inc., and the Pace Water System, Inc (Map 1-2). Existing residential development within these franchise areas is currently utilizing centralized sewer ranging between 40% to 100%, depending on franchise area, and the remaining existing development is utilizing septic tanks or onsite systems (Table 2).

In the Pace Water Systems franchise and the Holley Navarre franchise areas only 53% and 66% of the single family homes are connected respectively. Within the Town of Jay franchise area

100% of the residential structures are connected. Similarly, there are no on-site septic systems on Navarre Beach with 100% of the residential units connected to the centralized County operated system.

There are approximately 46,964 residential onsite systems (septic tanks) in the County, with about 60% of the single family homes in the County utilizing septic tanks (total single family units minus total single family residential connections in wastewater franchise areas).¹ Current policy allows for residential development with septic tanks at 4 units per acre when a centralized water connection is available and at 2 units per acre when utilizing a septic tank and private well for potable water.

¹ Total SF Units calculated by the Santa Rosa County Geographic Information Systems Division

Map 1-2 Santa Rosa County Sewer Franchises

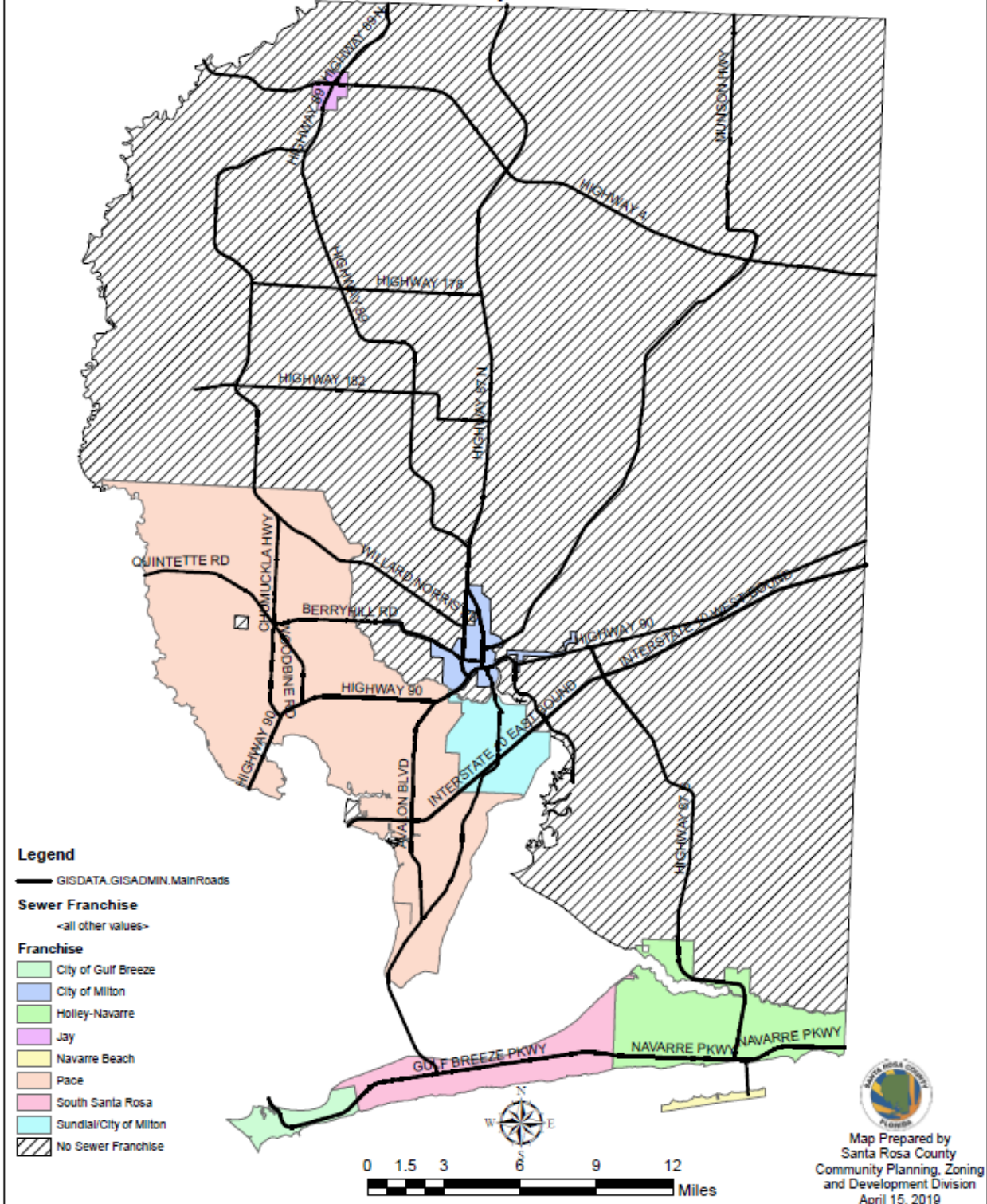


Table 2: 2018 Population Served by Wastewater Franchise Area and % Connected				
	Population Served	Commercial Connections	Residential Connections	Percent Connected Residential
Wastewater Utility				
City of Milton/Sundial	12,317	650	4,701	100%
City of Gulf Breeze / SSRU	20,630	523	7,874	65%
Holley Navarre Water System, Inc.	22,469	386	8,576	55%
Navarre Beach	5,814	10	2,219	100%
Pace Water System Inc.	21,324	392	8,139	43%
Town of Jay	647	67	247	100%

Level of Service:

Level of Service (LOS) standards for potable water and sanitary sewer are established in the Santa Rosa County Comprehensive Plan. Policy 4.4.A.6 establishes the LOS standard for potable water at 100 gallons per capita per day and Policy 4.1.B.1 establishes the LOS standard for sanitary sewer at 90 gallons per capita per day. For planning purposes these are the target LOS standards put in place to ensure that capacity exists to serve current and planned development. When considering land use amendments which increase density or intensity, these LOS standards are used to determine whether or not a utility has the available capacity to serve the proposed development.

State Level Water Utility Capacity and Demand Regulation and Oversight:

Rule 62-555.348, F.A.C. requires that the water utilities in the County routinely compare the total net quantity of finished water produced each day by their treatment plants with the total permitted maximum-day operating capacity of their plants. **Capacity analysis reports are required by the FDEP district office when the total maximum day quantity of finished water**

produced by all treatment plants exceeds 75% of the total permitted maximum day operating capacity of the plants. This only applies if they have greater than a 3,300 population.

Rule 555.900(2) or (3), F.A.C. also ***requires the water utilities to submit required monthly operational reports to the FDEP.*** In addition, Both the FDEP and the NFWFMD have the authority to require consumptive use permits and impose conditions on those permits. This is in accordance with Florida's water use policy, which gives preference to desirable uses to promote human, natural resource, fish, and wildlife preservation. In sum, there is state level oversight in terms of maintaining capacity to serve existing customers but the requirement to connect new customers is largely controlled by local policy.

State Level Wastewater Regulation and Oversight:

The Florida Department of Environmental Protection's Wastewater Management Program, located in Tallahassee, is responsible for the overall policy, including permitting, compliance and enforcement, of the Department's wastewater programs, both domestic and industrial wastewater, and coordination of the federally authorized National Pollution Discharge Elimination System (NPDES) program for surface water dischargers.

Rule 17-600.405, F.A.C., ensures that wastewater permittees conduct timely planning, design, and construction of wastewater facilities necessary to provide the proper treatment and reuse or disposal of wastewater and residuals. ***This rule requires the wastewater utilities in Santa Rosa County to routinely compare flows being treated with the permitted capacities. When the three-month average daily flow exceeds 50% of the permitted capacity, the utility must submit an initial capacity analysis report to the DEP District Office.*** Depending on the results, the utility may be required to submit updated capacity analysis reports or begin planning, design and construction of additional capacity.

- In the State of Florida approximately one-third of the population uses on-site systems or septic tanks.
- In Santa Rosa County approximately 50% of existing single family homes use on-site systems.

Permits for septic tank systems and other onsite sewage treatment and disposal systems are issued by the Environmental Health Section of the Florida Department of Health's County office. Standards for septic tank systems and other onsite sewage treatment and disposal systems are found in 381.0065, Florida Statutes (FS) and Chapter 64E-6, F.A.C.

Capacity Analysis:

When looking at water facilities in terms of capacity, there are three basic capacity parameters:

1. The first is **well capacity** or the capacity to produce water without the need to develop additional wells.
2. The second is **treatment plant capacity**, which is sometimes referred to as design capacity. This represents the ability of the plant to treat water flowing through from the well or wholesaler (water system that sells water to another water system) to the end user. In this area, this is mainly chlorination as a means of disinfection and other additives for pH correction or transmission system protection.
3. The third and final parameter is **storage capacity** which is basically the amount of water that can be stored in tanks for use at a later time.

If 25% of the water systems maximum daily flow is greater than the combined storage capacity then, by rule, it will trigger a study by the FDEP.

Since higher level treatment, for the most part, is not necessary due to high water quality and treatment is dose based according to flow, capacity is really related to well capacity. Most utilities in the County report well capacity as design capacity for this reason. The potential for additional future treatment demands have been lessened with the utilization of Sand-and-Gravel Aquifer wells rather than Floridan Aquifer wells for the urbanizing areas in the southern portion of the County as well as the middle County areas, and by the recent adoption of the County's well field protection ordinance.

For purposes of this report, water facility design capacity and/or well capacity - or the maximum allowed average daily well flow from the Northwest Florida Water Management District Consumptive Use Permit (CUP) - were compared to an average of monthly flows figure (Chart 1). This comparison is intended to illustrate available capacities for the water systems in the County. Basic water utility operational data, including how many wells each utility has and whether these are Sand-and-Gravel or Floridan Aquifer wells are reported in Table 3.

Demand projections, which are estimated by the Northwest Florida Water Management District through 2040 (2018 NWFL Water Supply Assessment), are shown in Table 4. The projections are then compared to design and well consumptive use permit capacities/allowances. The 2035 CUP deficits for Holley Navarre, Navarre Beach, and Midway are expected since these systems are purchasing water from FRUS. **As can be seen in this table, there is sufficient water facility design capacity surplus to accommodate projected demand through 2040.**

Table 5 indicates that there is no current capacity deficit, either design related or permit related, for the wastewater treatment facilities operating within the County. Connection to centralized sewer is required by the County for platted residential developments if service is

available within ½ mile or as required by the individual utilities. Expansion of the systems is driven by demand for higher density development patterns or may be required by environmental constraints. Current policy allows for residential development with septic tanks at 4 units per acre when a centralized water connection is available and at 2 units per acre when utilizing a septic tank and private well for potable water.

Chart 1: Current Capacity Analysis Summary Chart

Notes: The City of Gulf Breeze and South Santa Rosa Utilities do not have a Consumptive Use Permit since all water is purchased from Fairpoint Regional Utility System.

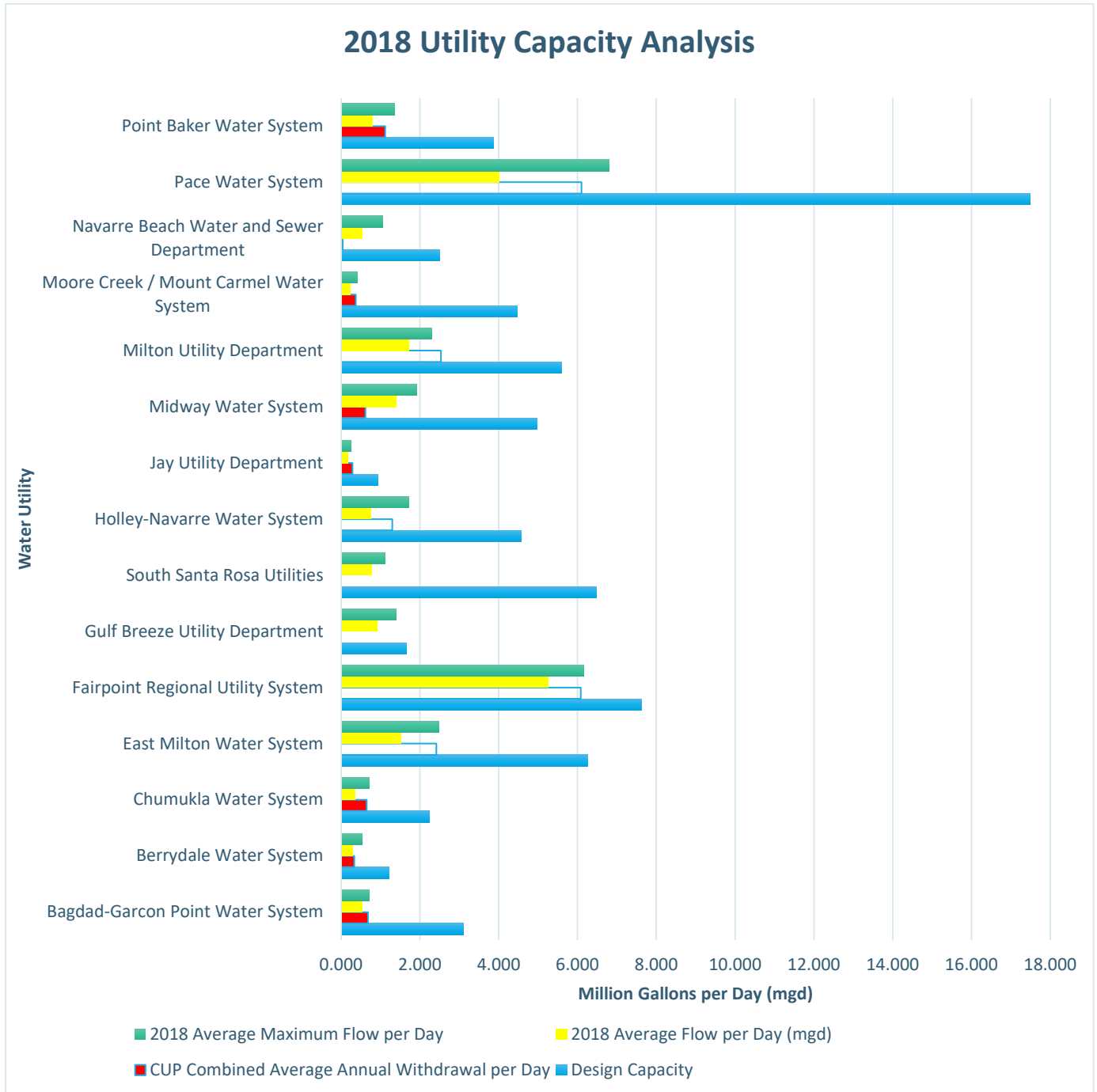


Table 3: 2018 Water Utility Operational Data	Total Water Pumped Mg/Yr	Total Water Sold Mg/Yr	Water Purchased from FRUS Mg/Yr	% Water Loss	Wells Per Aquifer Floridan/Sand and Gravel
Water Utility					
Bagdad Garcon Point Water System	209.4	156.2	0.0	25.0	(0/3)
Berrydale Water System	90.4	47.8	0.0	10.0	(0/3)
Chumuckla Water System	114.4	98.0	0.0	3.5	(0/3)
East Milton Water System	576.6	517.7	0.0	6.9	(1/5)
Fairpoint Regional Utility System	1997.2	1833.8	0.0	8.0	(0/6)
Gulf Breeze Utility Department	0.0	255.5	345.7	25.8	(0/0)
South Santa Rosa Utilities	0.0	300.5	364.9	17.0	(0/0)
Holley Navarre Water System	250.0	952.9	7183.4	2.0	(4/1)
Jay Utility Department	64.2	36.3	0.0	48.7	(0/1)
Midway Water System	272.6	392.8	290.1	19.3	(2/2)
Milton Utility Department	650.1	518.8	0.0	10.0	(0/6)
Moore Creek / Mount Carmel Water System	93.0	69.6	0.0	11.8	(1/2)
Navarre Beach Water and Sewer Department	9.9	129.3	139.4	13.0	(2/0)
Pace Water System	1534.8	1067.3	0.0	19.0	(0/11)
Point Baker Water System	297.6	239.6	0.0	4.7	(0/5)

Note: Data provided per each utilities 2018 Utility Operational Status Report

The City of Gulf Breeze and South Santa Rosa Utilities purchase 100% of water from FRUS. Navarre Beach, Holley Navarre and Midway also purchase from FRUS, predicting inflation of deficiencies.

Table 4: 2018 Water Utility Capacity and Demand Projections										
Water Utility	Average Daily Consumptive Use Permit Allowance Mg/d	Design Capacity Mg/d	Storage Capacity Mg	2025 Demand Projection Mg/d	2030 Demand Projection Mg/d	2035 Demand Projection Mg/d	2040 Demand Projection Mg/d	% Design Capacity 2035	% Design Capacity 2040	% Daily Consumptive Use Permit Allowance 2035
Bagdad Garcon Point Water System	0.680	3.096	0.750	0.553	0.578	0.598	0.617	19%	20%	88%
Berrydale Water System	0.336	1.224	0.375	0.272	0.280	0.285	0.288	23%	24%	85%
Chumuckla Water System	0.650	2.250	0.390	0.400	0.432	0.463	0.493	21%	22%	71%
East Milton Water System	2.420	6.264	2.150	1.830	1.977	2.118	2.258	34%	36%	88%
Fairpoint Regional Utility System	6.080	7.632	0.300	NA	NA	NA	NA	0%	0%	0%
Gulf Breeze Utility Department	NA	1.656	1.100	0.740	0.801	0.817	0.834	49%	50%	NA
South Santa Rosa Utilities	NA	6.480	1.650	0.757	0.777	0.791	0.801	12%	12%	NA
Holley Navarre Water	1.300	4.572	1.150	3.170	3.425	3.669	3.912	80%	86%	282%
Jay Utility Department	0.290	0.936	0.175	0.135	0.139	0.141	0.143	15%	15%	49%
Midway Water System	0.620	4.968	1.800	1.443	1.482	1.508	1.526	30%	31%	243%
Milton Utility Department	2.530	2.50	1.600	1.919	2.005	2.076	2.139	83%	86%	82%
Moore Creek / Mount Carmel Water Sys	0.375	4.460	0.500	0.276	0.283	0.288	0.292	6%	7%	77%
Navarre Beach Water and Sewer Dept	0.040	2.530	0.550	0.310	0.416	0.478	0.540	19%	21%	1195%
Pace Water System	6.100	17.482	3.900	4.716	5.096	5.458	5.820	31%	33%	89%
Point Baker Water System	1.120	3.859	1.125	0.990	1.070	1.146	1.222	30%	32%	102%

Table 5: 2018 Wastewater Utility Capacity Analysis	Design Capacity gpd	Permitted Capacity gpd	Average Daily Flow gpd	Percent Design Capacity	Percent Permitted Capacity	Reuse Flow	Reuse Customers
Wastewater Utility							
Pace Water System, Inc.	5,000,000	2,100,000	1,460,000	29%	70%	760,000	1029
Navarre Beach	900,000	900,000	322,000	36%	36%	NA	NA
City of Gulf Breeze/SSRU	2,000,000	2,000,000	1,672,000	84%	84%	1,672,000	1074
City of Milton/Sundial	2,750,000	2,750,000	1,790,800	65%	65%	NA	NA
Holley Navarre Water System, Inc.	3,240,000	3,240,000	1,520,000	47%	47%	1,477,000	2
Town of Jay	125,000	125,000	56,000	45%	45%	NA	NA

APPENDIX A

Comments from Water and Sewer Utilities Regarding Expansions, Capital Projects, and Programmed Improvements

Water Utility	Expansions, Capital Projects, and Programmed Improvements
Bagdad-Garcon Point Water System	<ul style="list-style-type: none"> • Various water main upgrades for fire suppression. • Water meter change out/upgrade.
Berrydale Water System	<ul style="list-style-type: none"> • No planned capital projects or other capacity/treatment/collection related improvements planned during the five year time frame 2019-2023 unless funding becomes available to upgrade original aging water lines on the north and west side of the distribution system to accommodate demand due to the growth in the area. • The FDOT proposes improvements to S.R. 87 north from south of Coldwater Creek to the Alabama Line (4-lane project). In the event FDOT projects move forward Berrydale Water System, Inc. will be required to relocate existing facilities. FDOT S.R. 87 North 4-lane project is not on FDOT 2018-2023 work schedule.
Chumuckla Water System	<ul style="list-style-type: none"> • Various water main upgrades for fire suppression.
East Milton Water System	<ul style="list-style-type: none"> • Early stages of planning for a future well. • Continue with line upgrades where necessary to provide fire protection in areas without service.
Fairpoint Regional Utility System	<ul style="list-style-type: none"> • Well and Treatment Plant #7 & Transmission Line • FRUS Master Booster Pump Station • FRUS Master Ground Storage Tank
Gulf Breeze Utility Department/SSRU	<ul style="list-style-type: none"> • Fire hydrant upgrades \$75,000 annually and water main replacement/upgrades \$100,000 annually.
Holley-Navarre Water System & Wastewater	<ul style="list-style-type: none"> • HNWS Central Booster Pump Station • HNWS Central Ground Station Tank • Misc. Water Distribution System Improvements • Hwy 399 Booster Pump Station
Pace Water Systems, Inc.	<ul style="list-style-type: none"> • Various water main upgrades for fire suppression. • Install PRV's in the existing waterlines on Woodbine Rd., Chumuckla Hwy. and West Spencer Field Rd. • Water meter upgrade/change out.

	<ul style="list-style-type: none"> Asbestos pipe replacement
Jay Utility Department	<ul style="list-style-type: none"> Anticipate expanding capacity in the next 5 years.
Midway Water System	<ul style="list-style-type: none"> System water main upgrades planned for Reservation Road, Bayshore Road, and Hickory Shores Blvd..
Milton Utility Department	<ul style="list-style-type: none"> A new 2.0 MGD wastewater treatment plant, associated pipelines and a new effluent disposal area has been permitted (2017). Add a new water well in the Roeville area
Moore Creek / Mount Carmel Water System	<ul style="list-style-type: none"> A project will begin on Feb 4, 2019 for new well & water plant No. 4 and 5 which will consist of the installation of two new potable water wells in the Floridan Aquifer. This includes a well house and water treatment plant for each new well along with controls, site piping and site improvements. Development of two new wells and well houses within next 12 months. Approvals are in place from FRWMD and FDEP for grant/loan funding for the project (2017).
Navarre Beach Water and Sewer Dept.	<ul style="list-style-type: none"> Well house #2 exterior upgrade.
Point Baker Water System	<ul style="list-style-type: none"> No planned capital projects.

Wastewater Utility	Expansions, Capital Projects, and Programmed Improvements
City of Milton	<ul style="list-style-type: none"> • None.
Pace Water Systems, Inc.	<ul style="list-style-type: none"> • Various lift station upgrades as necessary • Frontier Rd. lift station removal/gravity expansion. • School 'C' lift station relocation (eliminate Sawmill lift station). • Forcemain upgrades along the railroad from the Monticeto lift station to the Air Products lift station. • Pea Ridge lift station to accommodate for new development (timing will be based on development timing). • Forcemain replacement from Garcon Point Rd. to Delmonte (on Avalon). • Woodbine Rd. reclaimed water main upgrade. • Reclaimed water storage tank at Stonebrook and pumping facility. • Reclaimed water storage tank at Soccer Complex and pumping facility. • Loop feed reclaimed water main from Tunnel Rd. to Quintette.
City of Gulf Breeze/SSRU	<ul style="list-style-type: none"> • SSRU WWTP expansion to 3.0 MGD - \$14 million by 2020 • SSRU Collection System upgrades \$150,000 annually • SSRU Lift Station Upgrades \$200,000 annually
City of Jay	<ul style="list-style-type: none"> • Anticipate expanding capacity in the next five years.
Holly Navarre Water System Inc.	<ul style="list-style-type: none"> • Eglin Regional RIB Project • Clarifier #4 Replacement • Misc. Lift Station Upgrades • Misc. Force Main Grades
Navarre Beach Sewer	<ul style="list-style-type: none"> • #6 Lift Station Upgrade in process & removal of wastewater treatment effluent from Santa Rosa Sound to be discharged in rapid infiltration beds located on Eglin Air Force Base property.

Appendix B
Survey Used to Request Annual Update

Santa Rosa County
Development Services
6051 Old Bagdad Hwy, Suite 202
Milton, FL 32583

UTILITY OPERATIONAL STATUS REPORT for 2018 CALENDAR YEAR

Utility Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Mailing Address (if different from above): _____

Contact Name: _____ Telephone Number: _____

Water

Number of Connections:

(1) Residential _____

(2) Commercial _____

Consumptive Use Permit Allowances:

(1) Combined Average Annual Withdrawal per Day _____

(2) Maximum Combined Withdrawal per Day _____

Wastewater

Number of Connections:

(1) Residential _____

(2) Commercial _____

System Design Capacity: _____

Permitted Capacity: _____

Average daily flow during 2018: _____

Maximum daily flow during 2018: _____

Reuse to residential and commercial customers, number of connections and average daily flow 2018:

Anticipated of planned capital projects or other capacity/treatment/collection related improvements

planned during the five year time frame 2018-2023 _____
