Okaloosa County Water Supply Plan 2008 Update

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and
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OKALOOSA COUNTY WATER SUPPLY PLAN 2008 UPDATE

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B – Water Supply Facilities Work Plan, March, 2003
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INTRODUCTION

This document is intended to update the "Water Supply Facilities Work Plan" published in March, 2003. That work plan was a coordinated effort between the Northwest Florida Water Management District, the Department of Community Affairs, Okaloosa County, and the various water providers within the County. As stated in the "Work Plan" *This Water Supply Facilities Work Plan is intended to aid in the review, planning, and permitting of projects that serve unincorporated Okaloosa County. The facility plan will summarize information on existing water supply sources, current design capacities, permitted withdrawals, current average daily rates, anticipated growth for a ten year planning period, and required improvements necessary within five years and ten years to meet projected demands. The work plan is consistent with and is prepared pursuant to the requirements of s.163.3177(6)(c), F.S.*

Since March, 2003 the Legislature enacted additional statutory requirements that must be met with regard to water supply and facilities planning. A summary of the statutory requirements is generally described as follows.

1. Section 163.3177(4)(a) requires local governments to coordinate their comprehensive plans with the appropriate water management district's regional water supply plan.

2. Section 163.3177(6)(a) requires the comprehensive plan future land use map must be based upon the availability of adequate water supplies and public facilities and services. Information verifying adequate water supply must be provided for all future land use map amendments to be submitted to the Department of Community Affairs for state agency review.

3. Section 163.3180(2)(a) builds upon the potable water concurrency requirement by requiring verification that adequate water supply is available to serve a new development no later than the date a local government will issue a certificate of occupancy, and consult with the applicable water provider to determine whether adequate water is available prior to issuing a building permit.

4. Section 163.3177(6)(c) requires:

a. identification and incorporation of projects selected by a local government from projects identified in the regional water supply plan;

b. identify traditional and alternative water supply projects and the conservation and reuse programs necessary to meet current and future water use needs;

c. Include a water supply facilities work plan for at least a 10-year planning period for construction of water supply facilities identified as needed serve existing and new development.

5. Section 163.3177(6)(d) requires that, to the extent necessary for internal consistency, revise the comprehensive plan Conservation Element to assess projected water needs and sources for at least a 10-year period and in consideration of the regional water supply plan.

6. Section 163.3177(6)(h)1 requires that, to the extent necessary for internal consistency, revise the comprehensive plan Intergovernmental Coordination Element to ensure coordination between the comprehensive plan and the regional water supply plan.

This update is intended to provide recommendations that will fulfill the preceding statutory requirements.

Projects identified in the 2003 "Work Plan" as being necessary at that time for adequate water supply include the following.

- Interconnection between Mid County and Garniers service areas.
- Interconnection between Garniers and West service area.
- Additional storage facilities for Garniers and Mid County service areas.
- Two additional Floridan water supply wells (0.36 mgd each) in Mid County.

All of these projects are completed and operational at the present time except for the second .36 mgd water supply well in Mid-County.

METHODOLOGY AND ANALYSIS

Information and data contained in this update were taken from professionally accepted sources and, in some cases modified by planning staff for the context of this update. Information and data are provided herein for the public water supply providers in Okaloosa County. ***However, it should be stressed that Okaloosa County has no operational or fiscal responsibility for any water provider except Okaloosa County Water and Sewer (OCWS).*** Each water provider listed in this report is responsible for the planning, permitting, operation, facilities upgrades, financing, billing and reporting for the various individual public water supply systems.

Data shown in Table 1 were provided by the Department of Environmental Protection in December, 2007. These data are intended to present a general overview of water consumption for each water provider. It should be noted that the average consumption per connection for OCWS Mid-County is inordinately high when compared to the other providers. This is because the Mid-County system pumps water to other county water systems in the south end of the County. Thus, water distribution is not limited to the number of connections shown for the Mid-County system. The average monthly consumption for each provider was determined by averaging consumption reports for the period December, 2006 to November, 2007. In general, the average monthly consumption rates are well within consumptive use permit average daily rates.

Data shown in Table 2 were taken from the most recent water management district consumptive use permits. The withdrawal limitations for average daily rate, maximum daily rate, and maximum monthly rate are based upon detailed staff reports and water consumption models prepared by the Northwest Florida Water Management District (NFWMD). These data were obtained from the NWFWMD.

Data shown in Table 3 were taken from the "Regional Water Supply Plan for Santa Rosa, Okaloosa, and Walton Counties Update" prepared by the NWFWMD, May, 2006. The average daily rate surplus/deficit figures are county staff calculations. These data indicate that a number of the water supply providers listed are exceeding their consumptive use permit average daily rates. However, none of the providers were exceeding the permitted maximum daily rate and the consumption projections through 2020 indicate substantial design capacity for each provider listed, including all OCWS water service areas.

Data presented in Table 4 were also taken from the "Regional Water Supply Plan." These data clearly indicate that public water supply is the largest consumptive use of water both now and into the future.

TABLE 1
WATER PROVIDER CONSUMPTION

Provider	Type	PWS No. FDEP	Design Capacity (mgd)	No. of Connections (mgd)	Avg. consumption (12-06 to 11-07) (mgd)	Avg. Consumption per connection (gpd)
Auburn Water System	NFP	1460035	5,097,600	5480	1,561,982	285
Baker Water System	NFP	1460144	1,440,000	760	228,347	300
City of Fort Walton Beach	LG	1460043	9,820,800	9524	2,881,583	302
City of Niceville	LG	1460147	8,820,000	7112	2,760,202	388
City of Valparaiso	LG	1460149	4,126,000	1944	607,066	312
City of Crestview	LG	1460182	8,568,000	7500	2,887,591	385
Destin Water Users		1460202	9,648,000	8095	3,873,066	478

Provider	Type	PWS No. FDEP	Design Capacity (mgd)	No. of Connections	Avg. Consumption (12-06 to 11-07) (monthly mgd)	Avg. consumption per connection
Holt Water Works	NFP	1460352	432,000	479	150,708	315
City of Laurel Hill	LG	1460416	717,120	529	127,785	242
City of Mary Esther	LG	1460455	2,880,000	1900	575,690	303
Milligan Water System	NFP	1460472	576,000	503	152,044	302
Okaloosa County	LG					
Garniers		1460506	11,160,000	25,203	3,739,642	148
West		1460597	2,376,000	3463	729,399	211
Bluewater Bay		1460775	3,600,000	4980	1,188,750	239
Mid-County		1464044	6,192,000	2290	1,726,320	754
Seminole Community Center	NFP	1460781	374,400	330	92,472	280

Provider	PWS No. FDEP	Design Capacity (mgd)	No. of Connections	Avg. Consumption (12-06 to 11-07) (monthly mgd)	Avg. consumption per connection (gpd)
Hulburt Field AFB	1460782	4,608,000	702	664,888	947
Eglin Main AFB	1460826	7,488,000	539	756,044	1403
Eglin Housing	1460828	8,179,200	2335	1,028,863	441
Eglin Aux. 6 Ranger Camp	1460830	864,000	98	35,116	358
Okaloosa Correctional Institution	1464034	1,944,000	50	273,934	5479

NFP: Not-for-profit corporation; LG: Local government

Source: Florida Department of Environmental Protection, December, 2007; Okaloosa Growth Management calculations, January, 2008

TABLE 2
CONSUMPTIVE USE PERMITS

Provider	CUP Permit No.	Date Issued	Expiration Date	Permitted Capacities (mgd) ADR	MDR	MMR	No. of Wells
Auburn Water System	19830078	5-22-2003	1-28-2010	1.400	2.840	60.00	7
Baker Water System	19910141	4-22-2004	5-1-2014	.300	.512	1.20	3
City of Fort Walton Beach	19842473	3-27-2003	4-1-2008	4.078	5.959	1.48E+08	55
City of Niceville	198440110	4-22-2004	5-1-2009	2.950	5.310	1.35E=08	9
City of Valparaiso	20000065	11-30-2005	12-1-2010	.750	1.424	3.600	4
City of Crestview	19830023	5-27-1999	5-28-2009	3.710	5.570	1.5E+08	9
Destin Water Users	19830102	10-26-2006	11-1-2012	2.800	4.600	1.21E+08	6
Holt Water Works	19841586	8-26-2004	9-1-2014	.180	.320	.980	3

Provider	CUP Permit No.	Date Issued	Expiration Date	Permitted Capacities (mgd) ADR	MDR	MMR	No. of Wells
City of Laurel Hill	19850236	1-28-1999	1-29-2009	.170	.308	.620	3
City of Mary Esther	19830020	11-30-2005	12-1-2010	.720	1.040	2.600	4
Milligan Water System	19900033	10-25-2007	11-1-2017	.285	.525	1.000	3
Okaloosa County Garniers	19840092	10-26-2006	11-1-2011	5.500	8.200	1.97E+08	11
Okaloosa County-West	19830075	8-25-2005	9-1-2010	.810	1.400	3.400	3
Okaloosa County Bluewater Bay	19850027	6-23-2005	7-1-2010	1.400	2.400	4.800	3
Okaloosa County Mid-County	840112	3-26-1998	3-27-2018	3.610	6.300	1.51E+08	10
Seminole Community Center	19860020	10-26-2006	11-1-2008	.113	.243	.530	5
Hurlburt Field AFB	19842711	6-23-2005	7-1-2012	.800	1.630	3.100	5
Eglin Main AFB	19850079	11-30-2004	12-1-2014	1.700	4.000	91.000	9
Eglin Housing	19850080	2-24-2005	12-1-2014	1.920	4.990	1.2E+08	10

Provider	CUP Permit No.	Date Issued	Expiration Date	Permitted Capacities ADR	MDR	MMR	No. of Wells
Duke Field	19850075	3-22-2007	4-1-2014	.394	1.036	2.404	11
Eglin Aux. 6 Camp Rudder	19850076	5-26-2005	6-1-2015	.112	.374	.550	3
Okaloosa Correctional Institution	19840118	9-28-2006	6-25-2009	.442	.803	1.494	2
US Coast Guard Destin Station	19840109	3-23-2004	4-1-2014	32,800	74,800	1.802	3

ADR: Average Daily Rate; MDR: Maximum Daily Rate; MMR: Maximum Monthly Rate

Source: Northwest Fla. Water Management District, Consumptive use Permits

TABLE 3
PUBLIC WATER SUPPLY DEMAND PROJECTIONS (Mgal/day)

Provider	Water Demand 2005	2010	2015	2020	Design Capacity	CUP Limits ADR	MDR	Expires	ADR Surplus/(Deficit) 2005	2010	2015	2020
Auburn Water System	1.43	1.67	1.95	2.27	5.1	1.4	2.8	2010	0	(.27)	(.55)	(.87)
Baker Water System	.25	.31	.37	.45	1.440	.300	.512	2014	0	(.01)	(.07)	(.15)
City of Fort Walton Beach	3.13	3.21	3.42	3.76	9.821	4.078	5.959	2008	.948	.868	.658	.318
City of Niceville	3.38	3.73	4.08	4.43	8.820	2.950	5.310	2009	(.43)	(.78)	(1.13)	(1.48)
City of Valparaiso	.76	.82	.89	.95	4.126	.750	1.424	2010	.01	(.07)	(.14)	(.20)
City of Crestview	2.65	2.98	3.32	3.66	8.568	3.710	5.570	2009	1.06	.73	.39	.05
Destin Water Users	3.75	4.29	4.90	5.61	9.468	2.800	4.600	2012	(.95)	(1.49)	(2.10)	(2.81)
Holt Water Works	.14	.18	.24	.31	.432	.180	.320	2014	.04	0	(.06)	(.13)

Provider	Water Demand 2005	2010	2015	2020	Design Capacity	CUP Limits ADR	MDR	Expires	ADR Surplus/(Deficit) 2005	2010	2015	2020
City of Laurel Hill	.15	.16	.17	.18	717,120 gpd	.170	.525	2009	.02	.01	0	(.01)
City of Mary Esther	.69	.68	.67	.65	2.880	.720	1.040	2010	.03	.04	.05	.07
Milligan Water System	.17	.19	.20	.22	.576	.285	.525	2017	.115	.095	.085	.065
Okaloosa County												
Garniers	5.31	5.38	5.53	5.82	11,160.0	5.500	8.200	2011	.019	.012	(.03)	(.32)
West	.87	1.03	1.23	1.45	2.376	.810	1.400	2010	(.06)	(.22)	(.42)	(.64)
Bluewater Bay	1.27	1.47	1.72	2.02	3.600	1.400	2.400	2010	.13	(.07)	(.32)	(.62)
Mid-county	.63	.74	.84	.95	6.192	3.610	6.300	2018	2.98	2.87	2.77	2.66
Seminole Community Center	.10	.10	.10	.10	374,400 gpd	.113	.243		.013	.013	.013	.013

ADR: Average Daily Rate; MDR: Maximum Daily Rate

Source: NWFWMD CUP, 2008; Regional Water Supply Plan for Santa Rosa, Okaloosa & Walton Counties, NWFWMD, May, 2006

TABLE 4
OKALOOSA COUNTY WATER DEMAND & POPULATION PROJECTIONS

Average Daily Flow (Mgal/d)

Water Use Category	2005	2010	2015	2020
Public Supply	24.68	26.94	29.63	32.84
Domestic SS/Small Public SS	1.37	1.46	1.55	1.65
Commercial-Industrial SS	5.18	5.99	6.16	6.34
Recreational Irrigation	4.07	4.43	4.70	4.97
Agricultural Irrigation	.21	.24	.25	.28
Power Generation	0	0	0	0
TOTALS	35.51	39.06	42.29	46.08

Population Estimates	2005	2010	2015	2020
Total population (BEBR)	183,300	195,900	208,500	221,300
Pop. Srv. Public Supply	170,405	182,119	193,833	205,732
Pop. Srv. Domestic SS	12,895	13,781	14,667	15,568

Source: Regional Water Supply Plan for Santa Rosa, Okaloosa and Walton Counties, NWFWMD, May, 2006

ALTERNATIVE WATER SUPPLY

The alternative water supply plan for Okaloosa County is presented in the "Regional Water Supply Plan for Santa Rosa, Okaloosa, and Walton Counties", Plan Update, Northwest Florida Water Management District (WMD), May, 2006. The WMD developed the first regional supply plan in 2000 to recommend a strategy for meeting the water supply needs of Region II. By law, that plan must be updated every five years.

The 2006 Plan Update focuses on projects divided into two categories: **water resource development projects** and **water supply development projects**. Generally, water resource development projects are the responsibility of the WMD while water supply development projects are the responsibility if the individual water providers. This is described in further detail in the Executive Summary taken from the Plan Update on the pages following.

Preferred alternative water supplies for Region II are listed in the Plan Update as: inland groundwater sources pumped to coastal areas; reclaimed water; surface water; riverbank filtration, and; utility interconnections and related infrastructure improvements. Descriptions of these sources as well as specific projects taken from the Plan Update are provided on the pages following.

7.3 *Alternative Water Supply Development Projects for Region II*

7.3.1. Inland Sand-and-Gravel Aquifer Alternative Water Supply

The (inland) Sand-and-Gravel Aquifer is designated as an alternative water supply source for coastal Santa Rosa and Okaloosa counties. The 2000 RWSP targeted the area between the Blackwater and Yellow rivers for detailed study for water production. The aquifer is considered to be productive in this area due to its high rate of recharge, estimated by the U.S. Geological Survey at up to 18 inches per year (USGS, 1995). A detailed numerical model of the aquifer between the two rivers was developed and tested using surface water protection and wetlands impacts as resource protection criteria. Production wells have been developed and are currently capable of producing about 6.5 Mgal/d to offset pumping from wells in the coastal area. Total production capability of the inland Sand-and-Gravel Aquifer wellfield is estimated at about 18 Mgal/d. Groundwater modeling and analysis and monitoring by the cooperating utility and the District is ongoing. Other opportunities to utilize the Sand and Gravel Aquifer in place of the Floridan Aquifer will continue to be explored.

Fairpoint Regional Utility System currently operates a series of wells in the inland Sand-and-Gravel Aquifer wellfield supplying water to south Santa Rosa County, including Gulf Breeze, Midway, Holley-Navarre, and Santa Rosa County. The inland wells are replacing wells in the southern coastal area of Santa Rosa County, alleviating pumping pressures in the Water Resource Caution Area. Currently an additional pumping well that can produce up to 1.4 Mgal/d is planned to replace a coastal well of equal volume. Additional expansion of the wellfield is expected in the future as additional demands are identified, revenue sources are identified and secured, and permit conditions are met.

7.3.2. Inland Floridan Aquifer Alternative Water Supply

Significant progress has been made in replacing coastal withdrawals from the Floridan Aquifer in south Walton County with alternative inland supply wells. The Rock Hill wellfield was developed as part of the 2000 RWSP implementation and is currently producing over 6.5 Mgal/d for coastal Walton County. Additional capacity, within the limits of this supply source, are planned to accommodate increased demand related to growth that is based on a build-out condition in the area.

This project will include installation of additional wells, chlorination facilities, ground storage, land acquisition, and transmission lines. Because the next series of wells may be located further to the east, the District and utilities are evaluating options for expanding the wellfield and facilities. This will serve to accommodate additional demands, reduce pumping and reliance on water supplies in the coastal area, and provide a measure of redundancy in the regional water supply and distribution system that will ensure the availability of potable water and enhance emergency response and preparedness into the future.

7.3.3. Water Reuse

Water reuse is a legislative priority of the Water Protection and Sustainability Program and Florida's overall water resources policy. Reuse has been an important component of the FDEP and the District's water management strategy since the 1980s and has resulted in offsetting demand for potable-quality water as well as better disposal of treated wastewater (i.e., eliminating surface water discharges of treated effluent).

Golf course and landscape irrigation is the predominant use of reclaimed water treated to public-access standards; nearly all golf courses in Region II use reclaimed water. Retrofitting existing residential areas for additional reuse for landscape and yard irrigation tends to be cost-prohibitive, but as new developments are planned and as redevelopment activities occur, increased use of reclaimed water will be pursued.

7.3.4. Surface Water Development

Surface water sources have not been developed in Region II to date due to the high quality and low costs of developing and distributing traditional ground water supplies. However, in the interest of securing long-term, viable sources of water supply, the feasibility of surface water sources for public water supply is currently being evaluated as a water resource development project (section 6.2.3).

Okaloosa County has requested the District's assistance in identifying a feasible, viable surface water supply alternative(s) for the county. This request included evaluation of the development of a large reservoir on the Yellow River previously studied by the USACOE. In order to not duplicate this effort the Yellow River reservoir study by the USACOE has been included as a component of the District's surface water feasibility analysis. Although considered physically feasible the USACOE study data indicates the project is not an environmentally acceptable alternative and given these and other significant constraints is also not economically feasible as an alternative for water supply. However, the preliminary engineering and feasibility analysis conducted by the District indicates that other environmentally and economically feasible alternative surface water supply sources are available that would meet projected long-term water demand. These alternatives may also be of considerable benefit to supplement existing demand. The Yellow/Shoal River basin has previously been identified in the 2000 RWSP as a more than adequate and abundant supply of water. Preliminary engineering analyses and planning are currently underway to identify specific alternatives that Okaloosa County may pursue to meet its long term needs. This includes engineering feasibility analysis for:

- Direct surface withdrawals
- Development of small impoundment within smaller tributary basins
- River Bank Filtration
- Conjunctive use and augmentation of existing groundwater pumping demand.

The initial feasibility and conceptual engineering work for these types of sources as an alternative water supply development project has been completed (PBS&J 2006). Following the preliminary feasibility analysis, more specific cost evaluations, design and engineering tasks, and resource development components of the surface water strategy are recommended for further development. Land acquisition for watershed protection

and restoration, facility development, and small tributary or offline reservoir development are anticipated additional components that the District may cooperatively engage with Okaloosa County and other utilities to further develop the preferred or selected alternative for surface water supply.

7.3.5. Alternative Water Supply Facilities

This project category accommodates nontraditional and other projects which enhance, augment, or facilitate meeting current and future water demands. Guidance is provided in section 373.019, FS, for defining alternative water supplies to include such management measures as storage and reuse. The District follows this statutory guidance and defines such management strategies as being part of an overall alternative or nontraditional water supply strategy. General activities and criteria include:

- Storage projects that ensure water supply availability consistent with permit conditions, emergency management, response, and disaster recovery; and

- Utility interconnections that provide for multijurisdictional, interlocal, and regional water provision and delivery systems serving the public interest (including emergency management, response, and disaster recovery).

The following list is updated annually as projects are identified by the District and eligible entities, and approved by the Governing Board. This project listing is contained in the annual update to the Five-Year Water Resources Development Work Program and Consolidated Annual Report.

Table 7.1 Alternative Water Supply Development Project Summary List

Project/Activities	Responsible Entities*	Purpose / Objective	Estimated Quantity (Mgal/d)	Time-frame**	Funding Amounts & Sources***		
					WPSPTF	NWFWMD	Local
7.3.1 Inland Sand-and-Gravel Aquifer Alternative Water Supply							
Sand-and-Gravel Wellfield Expansion	Local Govt. or utilities in App. A, as appropriate	Replaces coastal production well; additional replacement wells TBD as expansion needs of the existing new wellfield are identified and planned	1.4 Mgal/d	2007	$500,000	$500,000	$1,000,000
Additional Sand-and-Gravel Aquifer development	Local Govt. or utilities in App. A, as appropriate	Replaces coastal production wells; additional wells TBD	Up to 10.6 Mgal/d	2007 - 2011	TBD	TBD	TBD
7.3.2 Inland Floridan Aquifer Alternative Water Supply							
Rock Hill Wellfield Expansion	South Walton Utility Co., Regional Utilities	This project will include the installation of additional wells, chlorination facilities and ground storage transmission lines.	9.0 Mgal/d	2006 - 2008	$6,000,000	$1,000,000	$11,042,750
Additional inland Floridan Aquifer Development	Local Govt. and utilities in App. A, as appropriate	Replaces coastal production wells; additional replacement wells TBD	Up to 23 Mgal/d	2007 - 2011	TBD	TBD	TBD
7.3.3 Water Reuse							
Bob Sikes Water Reclamation Facility	Okaloosa County	This project will develop reuse capability for landscape irrigation	1.0 Mgal/d	2006	$2,000,000	$0	$4,000,000

Table 7.1 Alternative Water Supply Development Project Summary List (continued)

Project/Activities	Responsible Entities*	Purpose / Objective	Estimated Quantity (Mgal/d)	Time-frame**	Funding Amounts & Sources***		
					WPSPTF	NWFWMD	Local
Water Reuse Facilities	Local Govt. and utilities in App. A	Construction of reuse facilities to replace potable water for landscape irrigation	+/- 4.0 Mgal/d	2007 - 2011	$4,000,000 ($1M/yr.)	TBD	$6,000,000
7.3.4 Alternative Surface Water Development							
Surface water direct withdrawal options: o Direct Withdrawal o Tributary Reservoir Development, Protection, Restoration o Riverbank Filtration	Local Govt. and utilities in App. A	Development of alternative surface water supply source and conjunctive use	Up to 25 Mgal/d	2007-2011	~$8,000,000		$26,000,00 - $45,000,000
7.3.5 Alternative Water Supply Facilities (e.g., Storage, Interconnects)							
Above-Ground Storage Facility Construction and Improvement	Local Govt. and utilities in App. A	Capital improvements to increase and/or secure storage facility capacity	TBD	2007 - 2011	TBD	TBD	TBD
Water Supply System Facility Interconnects, Enhancements, and Improvements	Local Govt. and utilities in App. A	Assist with delivery system interconnects, facility improvements	TBD	2007 - 2011	TBD	TBD	TBD
Aquifer Storage and Recovery	Local Govt. and utilities in App. A	Capital improvements to increase storage capacity of alternative water supplies	TBD	2007 - 2011	TBD	TBD	TBD

*Utilities and local governments with water supply responsibilities within the designated WRCA (s. 40A-2.802(1), F.A.C.) are responsible for implementing alternative water supply development projects per s. 373.0361(7)(b), F.S., in consultation with the District. All other local governments and utilities within the region are encouraged to implement alternative water supply development projects as indicated and as defined in s. 373.019(1), F.S. in consultation with the District.
**The project timeframe is focused on the five-year update cycle of the Region II RWSP (2007 - 2011) unless otherwise specified.
***All dollar figures are in 2006 dollars.
Specific implementation activities will be identified annually by the District in cooperation with Region II local governments and utilities. They will be reported in the annual Water Resource Development Work Program and Consolidated Annual Report.

COMPREHENSIVE PLAN AMENDMENTS

Based upon the preceding data and analysis recommended comprehensive plan amendments are shown on Table 5.

TABLE 5
RECOMMENDED PLAN AMENDMENTS

Element	Recommended Amendments
Chapter 1 **Administration**	Policy 1.15, add new paragraph 11 as follows. 11. For Type-1 citizen-initiated amendments the amendment application package must include a conclusive determination that adequate water supply is available to accommodate the level of development enabled by the proposed amendment to be determined using the maximum development potential the proposed future land use category will allow. ***Section 163.3177(6)(a), Fla. Stat.***
Chapter 2 **Future Land Use**	Add new Policy 2.9 as follows. Consideration of Type-1 future land use map amendments shall include a determination that an adequate water supply is available to accommodate the the level of development enabled by the proposed amendment. ***Section 163,3177(6)(a), Fla. Stat.***

Element	Recommended Amendments
Future Land Use	By December 1, 2008 the Land Development Code will be amended to include requirements that adequate water supplies and facilities must be available to serve new development no later than the date on which a Certificate of Occupancy or equivalent is issued, and a requirement that the applicable water provider must be consulted prior to issuing a building permit to determine if adequate water supply will be available to serve the new development. ***Section 163.3180(2)(a), Fla. Stat.***
Chapter 2.7 **Potable Water**	Add new Objective 4 and policies 4.1, 4.2, 4.3, 4.4 and 4.5 as follows. *Objective 4 To the extent possible coordinate with the Northwest Florida Water Management District toward the implementation of water supply development projects identified in the Regional Water Supply Plan Update, May, 2006.* Policy 4.1 The County shall continue to use inland groundwater water supply sources to be pumped to the coastal area so as to alleviate pumping from coastal water supply wells. Policy 4.2 The County shall investigate the feasibility of riverbank filtration as a viable alternative water supply source. Policy 4.3 Maximize the use of reclaimed water for non-potable uses as part of all new or substantially upgraded sewage treatment facility projects.

Element	Recommended Amendments
Potable Water	Policy 4.4 Coordinate with the various water providers to identify the potential for interconnected or shared water supply and distribution facilities. Policy 4.5 Evaluate the feasibility of developing the Sand-and-Gravel Aquifer in the Garniers Service Area as an additional water supply source. ***Section 163.3177(6)(c), Fla. Stat.***
Chapter 2.10 Conservation	Add new policy to Objective 1 as follows. Policy 1.6 Before December, 2008 the County shall adopt and implement a Water Conservation Program which contains the following considerations. 1. Maximize use of reclaimed water supplies to replace irrigation and other non-potable uses of the Floridan aquifer. When allocating reuse supplies greater consideration shall be given to customers that currently use the Floridan aquifer for non-potable uses. 2. Modify the OCWS rate structure in consideration of the water use characteristics of the various OCWS service area so as to provide financial incentives to customers that conserve and use water efficiently.

Element	Recommended Amendments
Conservation	3. Establish minimum criteria for Xeriscape landscaping methods to be required for all new multi-family residential and non-residential developments. 4. Investigate the feasibility of providing financial incentives to any homeowner who will install Xeriscape landscaping. 5. Investigate the feasibility of providing financial incentives to developers and contractors who install water-efficient plumbing fixtures above and beyond the plumbing fixtures required by the Florida Building Code. 6. For the West County Service Area OCWS shall not provide water to customers to fill or augment the level of water bodies used for aesthetic, irrigation, or other similar non-potable purposes (excluding swimming pools). 7. OCWS shall expand its water conservation and efficiency public information efforts and efforts to reduce all non-potable use of the Floridan aquifer. 8. Establish minimum criteria for enhanced irrigation efficiency, including alternate days and specific irrigation times (e.g. odd/even days and 4 PM to 10 AM.

CAPITAL FACILITIES PLAN

Okaloosa County Water and Sewer plans for capital facilities projects on a 5-year cycle. The current cycle is 2007 to 2012. Capital projects included in the current cycle are described in Tables 6 through 9.

TABLE 6
MID-COUNTY WATER SYSTEM
CAPITAL FACILITIES

NEED/COST	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12
Del-Cerro MC Well #6 Construct new 24" well $1.2 M						Begin design, permitting and construct.ion Complete by 2013.
Water expansion mains 16" and 12" main extension To serve Shoal River area $1.9 M	16" water main drill under Shoal River	Water main ext. to county jail	Ph. I-extend 16" main from Shoffner to Four Lakes	Ph. II-extend 16" main from Four Lakes to Jericho Rd	Ph. III-extend 12" main from Jericho Rd to Palmetto Av	
Shoal River well MC Well #5 24". $1.2 M				Begin design, permitting and construction	Complete installation and permitting clearance	

Source: Okaloosa County Water and Sewer Proposed Capital Improvements Plan

TABLE 7
WEST COUNTY SERVICE AREA
CAPITAL FACILITIES

NEED/COST	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12
Water main upgrades and main extensions to improve system pressure, water quality and fire protection. Locations vary. $200,000	$25,000	$100,000	$25,000	$25,000	$25,000	$25,000

Source: Okaloosa County Water & Sewer Proposed Capital Improvements Plan

TABLE 8
BLUEWATER BAY SERVICE AREA
CAPITAL FACILITIES

NEED/COST	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12
Upgrade existing Seminole Water System and maintain ownership. $900,000		Replace existing undersized Seminole Water System with new system meeting FDEP and fire code requirements. Supplemental funds obtained from NWFWMD. Existing system to be incorporated OCWS service area.				

Source: Okaloosa County Water & Sewer Proposed Capital Improvements Plan

TABLE 9
GARNIERS SERVICE AREA
CAPITAL FACILITIES

NEED/COST	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12
Martin Luther King Water Main Project 16" connecting main Final phase for supplemental water supply to West County. $2.5 M	Engineering, permitting and material cost to begin construction. Time dependant on obtaining easement from Eglin AFB.	Obtain all required material and begin surveying/staking & construction. Time dependent on easement from Eglin	Install, complete and document project.			
Connection of upper and lower pressure zones of OCWS system. $600,000		Begin design, permitting material purchase for 16" connecting main from Denton to 30" supplemental.	Begin construction.	Complete 16" connecting main including permit and project documentation.		
General water system infrastructure repair, upgrade and new improvements. Brooks Bridge. $1.0 M		Replace aging transite water mains, locations vary. Estimated cost only. $600,000	$100,000	$100,000	$100,000	$100,000
5-year major well maintenance plan. $250,000		$50,000	$50,000	$50,000	$50,000	$50,000
Large meter replacement For various locations $250,000		$50,000	$50,000	$50,000	$50.,000	$50,000

Source: Okaloosa County Water& Sewer Capital Improvements Plan