



Northwest Florida
Water Management District
Annual Report 2001

District Message

Page 2

Regional Water Supply Planning

Page 4

Governing Board Members

Page 9

Districtwide Activities

Page 12

Escambia and Santa Rosa Counties

Page 16

**Bay, Holmes, Okaloosa, Walton and
Washington Counties**

Page 19

**Calhoun, Franklin, Gadsden, Gulf,
Jackson and Liberty Counties**

Page 24

Leon, Jefferson and Wakulla Counties

Page 26

Combined Balance Sheet

Page 29

Financial Statement

Page 30

District Information

Page 32





Throughout 2001, water supply was a focus within the District's 16-county area. While the District's water shortage warning, declared in June of 2000 calling for voluntary water conservation measures, was rescinded in August of 2001, all northwest Florida residents were encouraged to continue to observe the ways they use water and to continue to look for ways to conserve this finite resource. As the population of the northwest area continues to grow, so do the demands for water and this will make water conservation practices increasingly important. The District has developed a number of water conservation brochures making them available to utilities and the general public.

A long-range Water Supply Plan for Region II (Santa Rosa, Okaloosa and Walton) also was completed and approved in 2001 after holding public workshops. A water supply assessment, conducted for the 16 counties within the District, found that only Region II, out of seven planning regions, did not have water supply sources to meet future demands while sustaining their existing water resources and related natural systems through 2020. The Regional Water Supply plan is an integrated water resource and water supply decision-making process and provides guidance and assistance on matters concerning water supply and water resource planning, development and implementation. Additionally, Floridan and Sand and Gravel aquifer modeling efforts are being undertaken to assess the availability of water, saltwater intrusion, effects of wellfield development and cumulative impacts.

Several cooperative projects to develop water supplies were initiated with local governments, area utilities and state and federal agencies this past year. These cooperative efforts involved the development of inland wells or wellfields. Coastal utilities comprising the Fairpoint Regional Utility System (City of Gulf Breeze, Holley-Navarre Water System, Inc. and Midway Water Systems, Inc.) are developing inland Sand and Gravel Aquifer wells in Santa Rosa County. Their \$19 million wellfield and transmission system has mid-2002 as a start-up date. The District received approximately \$3 million in federal funds for the planning, design and construction of the wellfield and its associated transmission facilities. Another cooperative project enabled the District and the Okaloosa County Water and Sewer System to evaluate alternative water supply sources which led to the development of several inland wells in the vicinity of Crestview. The South Walton Utility County, Inc., Regional Utilities and Destin Water Users dedicated their new inland Floridan Aquifer wellfield north of Freeport (Rock Hill) in September of 2001. The District first identified this potential inland wellfield area in its 1982 regional water supply plan.

The District assisted the City of Port St. Joe with obtaining a freshwater canal that will be used for water supply for that coastal community by contributing \$350,000 toward the purchase. In the spring of 2001, the District agreed to provide the City of Tallahassee with \$300,000 for an advanced water reuse facility which will reduce the demand from the Floridan Aquifer for irrigation.

Several restoration projects throughout the District also received our attention during 2001. The District received state and federal funding for restoration activities along the Apalachicola River. Federal funds also were appropriated to the U.S. Army Corps of Engineers for the removal of dredged materials at the Sand Mountain site in the Corley Slough reach of the Apalachicola River. Efforts also continued to obtain the needed permits for restoration work on Bayou Chico. This project calls for the dredging of Bayou Chico by the Corps and depositing the dredged materials in Clark Sand Pits. The District contributed \$660,000 to Escambia County to acquire Clark Sand Pits which will later be converted to a stormwater treatment facility and a park for area residents.

In May, the Governing Board delegated the authority to approve more routine consumptive use, farm pond and dam safety permits to the Executive Director to streamline the permitting process. This delegation has proven to be very successful and has reduced the number of days and the paperwork required to process these permits. For farm pond permits alone, an average of 32 days for each permit is being saved. Approximately 63 percent of all permit applications received fall into the category that can now be approved by the Executive Director.

As 2001 drew to a close, Florida, Georgia and Alabama continued negotiations for an equitable water allocation formula for the Apalachicola – Chattahoochee – Flint (ACF) River system. In mid-November, the three states agreed to extend these ACF Compact negotiations until January 15, 2002.

For the year ahead, the District will continue to focus on water supply, water conservation and more efficient ways to manage water. With water supply projects, regional solutions continue to be the most effective approach. The development of new water supply sources is generally too expensive for a single entity to undertake. If several utilities can pool their resources, the result can be a very effective and mutually beneficial solution. Cooperation will continue to be a key element of effective water management for years to come.



J. Russell Price
Chair, Governing Board



Douglas E. Barr
Executive Director

Regional Water Supply Planning

In 1997, the Florida Legislature amended the Florida Water Resources Act (Chapter 373, F.S.) to provide additional guidance to the state's five Water Management Districts regarding regional water supply planning. Within the Northwest Florida Water Management District, this resulted in the establishment of seven water supply planning regions, a current assessment of the water supply needs and sources of each region and development of a regional water supply plan for the region the District identified as having the most significant future water supply problems.

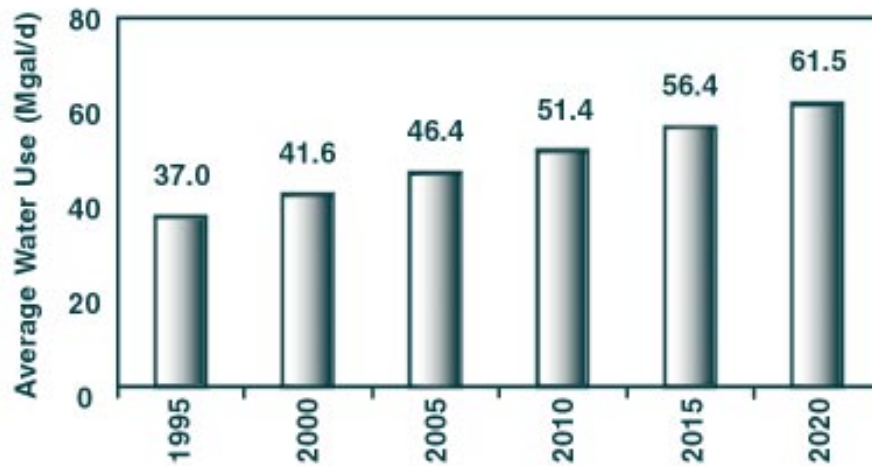
The Northwest Florida Water Management District completed the *District Water Supply Assessment* in 1998. As required by the new statute, the water supply assessment involved

projecting water demands for a 20-year planning period to identify reasonably anticipated future needs. Based on the assessment and subsequent action by the District's Governing Board, it was determined that Region II (Santa Rosa, Okaloosa and Walton counties) required a Regional Water Supply Plan. This plan, which the Governing Board approved in February 2001, is the first in northwest Florida under the new statute and extends through the year 2020. The plan describes the region's water supply needs, identifies existing and alternative water sources and analyzes the capability of these sources to meet future demands. Alternatives to sustain the existing water supply sources are also discussed (for further information: www.state.fl.us/nwfwmd/pubs/r2wsp/rwsp.htm). The primary resource concern in Region II is in the coastal

Water Supply Planning Regions



Region II: Public Supply



area where continued and increased pumping from the Floridan Aquifer could result in saltwater intrusion and damage to public water supply wells.

Virtually all of the water supply issues in the planning region are attributable to demands for potable water distributed by public supply water utilities in the coastal fringe of Santa Rosa, Okaloosa and Walton counties. Water supply planning and resource management activities

have focused on this issue during the past two decades and the District has developed a close working relationship with the local governments and utilities in this region to monitor the water resources and develop solutions to meet future demands. In addition to existing demands, public supply water use in the region is projected to increase to an estimated 61.5 million gallons per day (Mgal/d) in 2020, up 24.5 Mgal/d from the 1995 amount of 37 Mgal/d. Almost two-thirds (15.9 Mgal/d) of this increased

1995-2020 Water Demand Data by County (Mgal/d)

Water Use Category	Santa Rosa County		Okaloosa County		Walton County		Regional Total	
	1995	2020	1995	2020	1995	2020	1995 Total	2020 Total
Public Supply	11.5	21.1	21.2	32.6	4.4	7.9	37.0	61.5
Domestic/Small Public	0.8	0.9	1.9	3.8	0.5	1.4	3.1	6.1
Commercial-Industrial	6.2	8.2	4.0	6.3	1.6	1.7	11.8	16.3
Recreational Irrigation	1.5	2.6	2.6	3.7	1.3	1.9	5.4	8.2
Agricultural Irrigation	0.2	0.5	1.2	0.3	0.1	0.1	1.5	0.8
Power Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	20.2	33.3	30.9	46.7	7.8	13.0	58.9	92.9

Note: Totals may not be precise due to rounding.

demand is projected to occur in the region's high growth coastal areas which contain some of the country's most scenic white sand beaches.

The problems associated with the anticipated increased demand for water along the coastal areas of Region II have already been exacerbated by a long-term decline in the potentiometric surface (the level to which water will rise in wells due to pressure within an aquifer) of the Floridan Aquifer. This decline has formed a large cone of depression centered on Ft. Walton Beach. This cone of depression was mapped as early as 1962 and has existed well before the District began its operations. In 1989 following several water resources investigations, the District designated this area a "Water Resource Caution Area" – a designation that carries more stringent water use permitting requirements.

Future Water Sources Identified

Ground Water – Traditional sources of water for Region II have been ground water withdrawals along the coast. These withdrawals are from the Floridan Aquifer and the Sand and Gravel Aquifer. Most of the ground water withdrawn in Santa Rosa County comes from the Sand and Gravel Aquifer and most of the water supply needs in Okaloosa and Walton counties are from the Floridan. The Regional Water Supply Plan indicates that these coastal ground water sources are anticipated to continue to be tapped to meet a large portion of the current water supply needs through at least 2020.

To meet additional future demands and to avoid saltwater intrusion in the Floridan Aquifer along the coast, a number of feasible water supply source alternatives have been identified. The primary and most feasible alternatives will be developed through construction of new inland Sand and Gravel Aquifer and inland Floridan Aquifer wells. Efforts are currently underway to develop these inland sources of supply. As part of the plan implementation, analyses are also continuing with the use of numerical ground water flow and salinity models to estimate the cumulative effects of withdrawals on ground water levels and the sustainability of these aquifers. In most of Region II, the Floridan

Aquifer is a well confined system so the effects of withdrawals will not generally be observed on the land surface, i.e. lowered lake levels and local stream flows. Rather, the lateral migration of saltwater or upconing (the pulling up of saline or poorer quality water) would likely be the effects of overpumping.

The District, in cooperation with local utilities, is producing a three-part numerical ground water model to investigate saltwater intrusion, effects of wellfield development and cumulative impact analysis in the underlying Floridan Aquifer system. The salinity transport portion of the model will examine the sustainability of withdrawals from the Floridan Aquifer in areas of Region II and examine the potential for saltwater intrusion under current and future conditions. Once developed, a number of model simulations will be conducted projecting usage rates through 2050. The model will be useful in estimating the sustainability of Floridan Aquifer sources at various rates of water withdrawals. This modeling effort is the District's highest priority water resource development project in the Region II plan and is scheduled for completion in 2003.

In contrast to the Floridan Aquifer, the Sand and Gravel Aquifer is better connected to the area's surface waters. However, since the Sand and Gravel Aquifer is much closer to the land surface and can receive much greater amounts of recharge from rainfall, concerns for possible impacts on sensitive resources such as small streams and wetlands are reduced. There are two primary areas of interest in the Sand and Gravel Aquifer for use as alternative water supply sources. One is the coastal portion of the area south of Eglin Air Force Base and the other is inland between the Blackwater and Yellow rivers. The coastal areas where additional water supply wells can be constructed to tap the Sand and Gravel Aquifer are sparsely distributed along the coast but, where available, are low-cost alternatives for meeting increased demands. To meet 2020 water demands and beyond in the rapidly developing coastal area of Santa Rosa County, coastal utilities comprising the Fairpoint Regional Utility System (City of Gulf Breeze, Holley-Navarre Water System, Inc. and Midway Water Systems, Inc.) have begun to develop the western

part of the inland Sand and Gravel Aquifer in Santa Rosa County. This \$19 million wellfield and transmission system has a mid-2002 start-up date. To help support the development of this wellfield, the District has received \$2.85 million in federal funds for construction of the wellfield and its associated transmission facilities. These inland wells will be used to meet the coastal area's future water needs and reduce withdrawals from the Floridan Aquifer.

For further development of the inland Sand and Gravel Aquifer, the District has begun to assess potential ground water availability between the Blackwater and Yellow rivers in eastern Santa Rosa and Okaloosa counties. The Sand and Gravel Aquifer in Santa Rosa County is extremely productive due to its high rate of recharge and is believed to be capable of providing regionally significant quantities of water. Quantifying additional ground water availability from the Sand and Gravel Aquifer will require a detailed numerical model of the Sand and Gravel Aquifer's flow system. The model results will reflect the amount of additional ground water that can be safely withdrawn from the study area to meet regional water supply needs. This analysis will also be helpful to protect and preserve the recharge areas in the immediate vicinity of where the new well sites would be needed.

Water Conservation – Water saved through water conservation practices becomes an alternative, or an additional source of supply, and is characterized as a demand reduction technique. Based on estimates of additional amounts of water that could become available through conservation practices, the plan indicates that utilities within the region have already implemented a number of effective conservation practices. The District's efforts to support conservation have primarily been through its consumptive use permitting and public education program. Five water conservation brochures have been developed and made available by the District to utilities and the general public to increase awareness of the need for water conservation: *50 Ways to Save Water*, *Watering Wisely*, *Retro-Fit-It*, *Xeriscape* and *An Indoor Water Audit*.



Reuse – The use of reclaimed water (reuse), or treated wastewater, also can be classified as an alternative source since this source had not been available previously. Several utilities have implemented or plan to implement extensive reclaimed water practices, especially for landscape irrigation. The use of reclaimed water for water supply purposes is particularly beneficial when it reduces Floridan Aquifer withdrawals. It can be a low-cost measure to stretch the use of existing water supply sources, because for every gallon of reclaimed water used, a gallon of drinking water is saved. Reuse is being practiced in Region II and Santa Rosa County recently proposed an ordinance requiring reuse in some instances, such as in new subdivisions. The reuse of water is becoming an increasingly important conservation measure.

Surface Water – The Choctawhatchee, Yellow and Shoal rivers and other surface water sources were identified as possible alternative sources of water supply. In examining this alternative, a number of important environmental considerations would be needed before such sources could be used. The expenses associated with treating, transporting and distributing surface water and the construction of storage reservoirs, if necessary, may currently be cost prohibitive. Detailed evaluations and feasibility studies would be needed before deciding on the future use of these sources. Surface water sources will continue to be characterized and evaluated in conjunction with other water resources investigations or feasibility studies, as well as the District's ongoing ground water modeling efforts.

Aquifer Storage and Recovery – Aquifer storage and recovery (ASR) was evaluated as an alternative supply source on the basis of having surface water and ground water sources available to store water in the Floridan Aquifer. In the future, ASR may have potential as a protective salinity barrier or it could provide a large amount of underground storage for holding freshwater supplies. It may be thought of as a huge underground storage tank with much greater storage capacity than above ground reservoirs in which freshwater supplies are injected into the underlying aquifer(s) and then later withdrawn as needed. The outcome of the pending sustainability model of the Floridan Aquifer will help determine the cost effectiveness and general feasibility of this alternative. One difficulty in this region is that ASR generally becomes economically less feasible if the amount of water needed to be stored is small. The use of desalination (a process by which impurities such as salt are removed from the water) as an alternative source was evaluated based on current technology, implementation costs and source water quality. Due to high salt content of brackish water sources and the relatively low demand in Region II, desalination was

considered not to be an economically feasible alternative at this time.

The Water Supply Plan as a Decision-making Tool

Planning for a water supply is an important first step in the development of any water resource project that involves many elements. This includes considerations for economic, environmental, technical, social, political and financial feasibility as well as the basic recognition of the need to develop water supply resource projects.

The water supply plan for Santa Rosa, Walton and Okaloosa counties is a useful tool for determining which of several water supply source actions should be undertaken. It represents an integrated water resource and water supply decision-making process. The overall objectives of the water supply plan are to provide guidance and assistance on matters concerning sources of water supply and water resource planning, development and implementation. As actual alternative water supply sources are developed, the plan also calls for the coordination of these new sources with local initiatives. All of these collaborative efforts reflect a great deal of cooperation and teamwork among the utilities, local governments and the District. Any plan should be subject to change as new data or new technologies become available and the plan will be updated and revised to reflect these advances. Along with newly developed sources, water demand projections are expected to be updated about every five years to ensure that growth beyond the 2020 horizon will be reasonably accounted for. A regional decision-making approach for developing strategies to meet future demands results in the most beneficial use of the water resources for all existing and reasonably anticipated future uses and ensures sufficient supplies will be available to meet the region's future demands.



Northwest Florida
Water Management District
Governing Board Members



J. Russell Price
Chair
Tallahassee
Represents Basin V
Appointed: March 5, 1999
Reappointed: March 2, 2000
Term Expires: March 1, 2004



Joyce Estes
Vice Chair
Eastpoint
Serves At Large
Appointed: March 5, 1999
Term Expires: March 1, 2003



NancyAnn M. Stuparich
Secretary/Treasurer
Pensacola
Represents Basin I
Appointed: April 10, 2000
Reappointed: March 2, 2001
Term Expires: March 1, 2005



Wayne Bodie
DeFuniak Springs
Represents Basin II
Appointed: March 5, 1999
Term Expires: March 1, 2003



Hulan Carter
Chipley
Represents Basin III
Appointed: March 2, 2001
Reappointed: March 2, 2002
Term Expires: March 1, 2006



Sharon T. Gaskin
Wewahitchka
Serves At Large
Appointed: March 5, 1999
Reappointed: March 2, 2000
Term Expires: March 1, 2004



Stephanie Hughes
 Panama City Beach
 Serves At Large
 Appointed: March 2, 2001
 Reappointed: March 2, 2002
 Term Expires: March 1, 2006



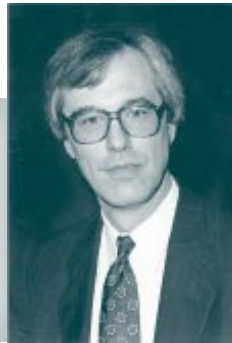
L. E. McMullian, Jr.
 Sneads
 Represents Basin IV
 Appointed: July 2, 1987
 Reappointed: March 5, 1999
 Term Expires: March 1, 2003



Richard P. Petermann
 Fort Walton Beach
 Serves At Large
 Appointed: March 2, 2001
 Term Expires: March 1, 2005

Basin I: Perdido and Escambia rivers
 Basin II: Blackwater and Yellow rivers
 Basin III: Choctawhatchee River and St. Andrew Bay Coast
 Basin IV: Apalachicola and Chipola rivers
 Basin V: Ochlockonee, Wakulla and St. Marks rivers

Douglas E. Barr
Executive Director
 Northwest Florida Water
 Management District
 Appointed: February 1992



In February, the District expressed its appreciation to three Governing Board members whose terms expired on March 1: Charles W. Roberts, John R. Middlemas, Jr. and Judy Byrne Riley.

Governing Board Meetings 2002	
January 24	August 22
February 28	September 12*
March 28	September 26*
April 25	October 24
May 23*	November 21
June 27	December 2
July 25	

* The May 23 meeting will be in Pensacola, the September 12 Public Hearing on the Budget will be in Destin and the September 26 meeting will be in DeFuniak Springs. All other meetings are scheduled for the District's Headquarters.



New projects and programs undertaken during 2001 are described on the following pages, as are ongoing ones. Not all projects or programs are included in this Annual Report and the District engages in many others to protect and preserve the water resources of northwest Florida.

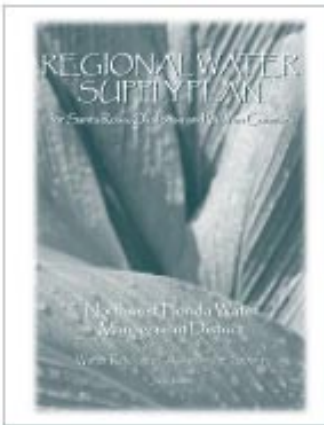
Water Shortage Warning Rescinded

On August 23, 2001, the District's Governing Board rescinded Order No. 00-001 declaring a water shortage warning throughout the District's 16 counties. The warning was issued on June 22, 2000, and had been in effect for 14 months. During 2001, rainfall patterns were more typical and all major rivers returned to normal ranges. Area lake levels also began improving.

Whether or not the District is experiencing a drought, water conservation practices to preserve this finite resource are always recommended. The District has a number of water conservation brochures available for the public: *50 Ways to Save Water*, *Watering Wisely*, *Retrofit-it*, *Xeriscape* and *An Indoor Water Audit*. *An Indoor Water Audit* is the District's most recent water conservation brochure. These brochures also may be obtained from the District's web site.

Regional Water Supply Plan

In February, the Regional Water Supply Plan for Santa Rosa, Okaloosa and Walton counties was presented to the Governing Board for consideration. This action followed workshops for local governments, utilities and the general public.



The plan evaluated future water demands on the Floridan and Sand and Gravel aquifers, documented water supply development activities underway in the region and examined alternative sources of water to address future needs. In the plan are a

number of recommendations, including the completion of the ongoing Floridan Aquifer sustainability modeling project, further analysis of the Sand and Gravel Aquifer, reuse and conservation coordination and assistance, water supply planning and coordination and an analysis of other less traditional water supply alternatives. The Governing Board approved the Regional Water Supply Plan in February.

Florida Forever Program

The Florida Forever Program received legislative approval during the 1999 session and succeeded the Preservation 2000 land acquisition program. As directed by the legislature, at least 50 percent of Florida Forever funds are to be used for land acquisition and the remainder may be used for certain capital improvements (stormwater treatment facilities, restoration activities and water resource development projects) identified in the District's Surface Water Improvement and Management (SWIM) plans, Regional Water Supply plan and land management plans. Current SWIM plans include Lake Jackson, St. Marks River, Apalachicola River and Bay, St. Andrew Bay, Choctawhatchee River and Bay and Pensacola Bay.

During 2001, the first Florida Forever Five-Year Work plan was developed and approved. The plan provides overall guidance for the use of Florida Forever funds and it will be updated annually. Originally, the District identified several capital improvement projects and other activities that would assist in meeting Florida Forever goals. When funds were diverted to the Everglades, remaining funds were redirected to cover proposed acquisitions. As a result, capital improvement projects were delayed, curtailed or modified.

Florida Springs Initiative

In November, the District entered into an agreement with the Florida Department of Environmental Protection (DEP) in support of the Florida Springs Initiative. The statewide Florida Springs Initiative will involve data collection, sampling, flow monitoring and research into the current condition of first magnitude Floridan Aquifer springs.

Under the agreement, the District will assist with surface water sampling, flow monitoring and ground water basin delineation at Wakulla Springs, St. Marks Rise, Spring Creek, Jackson Blue Spring and the Gainer Springs group.



Gainer Springs

Regional Mitigation Plan Update

The Regional Mitigation Plan update, presented to the Governing Board in October for approval, addressed eight additional projects for which mitigation plans had not been previously developed. These planned Department of Transportation (DOT) projects have a cumulative impact of slightly more than 82 acres of wetland loss. To offset these impacts, mitigation was proposed for Robinson Bayou (Bay County), lower Choctawhatchee River and Bay watershed, Garcon Peninsula (Escambia County), Yellow River watershed, Blackwater River watershed and Sand Hill Lakes region. Mitigation activities may include the acquisition of lands or preservation and restoration activities.

Land Maintenance

In January, the District entered into an agreement with the Orange Hill Soil and Water Conservation District to provide land management construction, maintenance, installation and repair services for the Chipola River (Jackson County), Econfina Creek (Bay, Jackson and Washington counties) and Choctawhatchee (Bay, Holmes, Walton and Washington counties) water management areas. Minimum security inmate crews will be used for these activities which will be cost effective for the District. Activities to be undertaken include installing informational and boundary signs, general cleanup activities, public recreational improvements, fences and other construction.

Public Recreational Sites

For several years, the District has had agreements with Holmes, Jackson, Liberty, Santa Rosa, Walton and Washington counties and the City of Tallahassee to participate in managing and maintaining public recreational facilities on District lands. Local governments generally provide cleanup and construction services while the District provides engineering services, permitting assistance and materials used in making these improvements. In February, Escambia County entered into a similar agreement with the District. These cooperative agreements have resulted in significant improvements to numerous public recreational sites, especially boat landings.

In Lieu of Taxes

The District makes payments in lieu of taxes to each qualifying county in which the District has acquired lands. When lands fall under public ownership, they are removed from the county tax rolls. In 2000, the Florida Legislature made changes to the in lieu of taxes legislation which allowed a county to qualify for reimbursements if it had a population of fewer than 150,000. In previous years, the population was required to be fewer than 75,000. Additionally, legislative changes now allow the District to

reimburse all taxes for any property purchased in 2000 or subsequent years.

In February, the Governing Board approved payments to the following counties: Bay \$802; Holmes \$1,997; Jackson \$8,374; Liberty \$6,560; Okaloosa \$917; Walton \$13,245; and Washington \$30,080.

Archaeological and Historical Surveys

Lands acquired by the District are sometimes found to contain many archaeological and historical sites. Until recently, the majority of these public lands had not been surveyed or investigated. During the past two years, Panamerican Consultants, Inc., obtained grant funds and conducted surveys on the lower Yellow River, Econfina Creek and, most recently, the Choctawhatchee River water management areas. The District plans to continue archaeological and historical resource surveys and investigations on other District land areas so that these sensitive resources can be protected and preserved.

Prescribed Burning on District Lands

Approximately 10,000 acres of habitat that needs to undergo prescribed or controlled burning has been identified on District lands. A primary land management goal is to maintain and restore fire dependent habitats to their natural state and condition. As a result, the number of acres slated for this kind of land management activity is expected to increase each year.

Prescribed fire is one of the most cost effective and efficient tools available to land managers for maintaining fire dependent habitats. Additionally, prescribed fire is essential to reduce fuel loads and the threat of wildfires in slash and loblolly pine forests and other habitats. District lands targeted for prescribed burns during the next fiscal year are primarily within the Choctawhatchee River and Econfina Creek water management areas.

Ground and Surface Water Monitoring

The District will be entering its 18th year of a cooperative program with DEP to sample a network of sites throughout the northwest area. The District will assist DEP with collecting and interpreting water quality data from confined and unconfined aquifers, rivers, streams and lakes as part of a statewide integrated water resources monitoring network.

Ambient Monitoring of Surface Water Quality

Continuation of the Surface Water Quality Assessment program which involves collecting and interpreting surface water quality data from rivers, streams and lakes within the 16-county area of the District was approved in September. The District has participated in this program with DEP for the past 10 years. The program provides surface water quality data for the assessment of long-term water quality trends and impacts from specific activities or land uses in watersheds. The data are used to develop management strategies to improve surface water quality or minimize negative impacts on surface water resources.

District's Audit Report

In January, James Moore and Company, an independent financial auditing firm, presented its most recent audit report to the Governing Board for approval. As in past years, the District once again received a "clean opinion" on its audit. The Governing Board commended staff on the audit results.

Inspector General Activities

In October, the District's Inspector General presented his audit report to the Governing Board for the 2000-2001 Fiscal Year ending September 30, 2001. The District was found to be in compliance with all areas examined: review of controls in place at the District's satellite offices and District transactions related to regulatory permitting, acquisition and disposal

Permits Issued by County

(October 2000 to September 2001)

County	Well Construction Repair and Abandonment	Consumptive Use (new/renewal/ modifications)	Surface Water Management (standard/general)	Agricultural and Forestry Surface Water Management (standard/general)
Bay	1,548	22	-	-
Calhoun	298	2	-	3
Escambia	1,369	6	-	4
Franklin	116	2	-	-
Gadsden	356	19	1	10
Gulf	193	5	-	1
Holmes	363	-	-	6
Jackson	962	15	-	-
Jefferson	296	5	-	2
Leon	967	2	4	2
Liberty	65	4	-	2
Okaloosa	1,401	10	2	7
Santa Rosa	1,026	7	1	1
Wakulla	233	2	-	-
Walton	823	19	-	16
Washington	583	2	-	-
Total	10,599	122	8	54

of real property and equipment, travel costs and procurement procedures.

The Inspector General also presented his proposed audit for Fiscal Year 2001-2002. Areas to be examined include planning, cash, travel, payroll, fringe benefits and overhead allocations, items subject to personal use such as cell phones and fleet vehicles, regulatory permitting division and reporting.

WaterWays Educational Program

The District's public middle school water resources educational program: *WaterWays: Exploring Northwest Florida's Water Resources*, continues to be distributed throughout the District's 16 counties. WaterWays uses a local perspective to give middle school students a broad, general understanding of the need for, and methods of water management, and to lay the groundwork that will enable these future decision makers to manage and protect our water resources. The educational program consists of a 122-page heavily-illustrated textbook, a teacher's guide, five slide/tape presentations and region-specific videos.

Wells in Contaminated Areas

An agreement with DEP to continue to implement the well permitting requirements of Chapter 62-524, Florida Administrative Code, was approved in September. Through this program, potable well construction (and abandonment of wells) in areas of delineated ground water contamination in Jackson, Leon, Santa Rosa and Escambia counties will continue to be addressed.

Employee Service Awards

Employees achieving 20 years, 15 years, 10 years and 5 years of service are recognized by the Governing Board for their dedication each year. Employees receiving these awards during 2001 included:

For 20 years of service: Donald King, Associate Lands Manager; and J. Earl Bright, Field Representative Specialist

For 15 years of service: Patrick W. Creel, Maintenance Assistant; Clarence L. Lowman, Lands Technician; and Christopher Richards, Senior Hydrologist

For 10 years of service: Graham Lewis, Senior Environmental Scientist

For 5 years of service: Ferdouse Sultana, Associate GIS Analyst; and John T. Valenta, Assistant Lands Manager

\$660,000 Provided for Stormwater Treatment Facility

An agreement to provide \$660,000 to Escambia County for the acquisition of land for a stormwater treatment facility for Bayou Chico was approved by the Governing Board in July. Bayou Chico, a part of the Pensacola Bay system, is a priority water body of the Surface Water Improvement and Management (SWIM) program. The property being acquired is the Clark Sand Pits, located along Jackson Branch on the northwest portion of the bayou.

Bayou Chico has been adversely impacted by rapid development within its watershed and by associated nonpoint source pollution. Nonpoint source pollution results from stormwater flowing over land carrying with it a number of pollutants from these urban areas. As much as four feet of sediment have accumu-

lated in Bayou Chico due to the lack of modern stormwater controls, a condition that has existed for years.

This acquisition not only will provide for a stormwater treatment facility but also provide for public park areas as part of the overall project.

Alum Injection Stormwater Pilot Project

In March, the District entered into an agreement with the Department of Environmental Protection (DEP) to provide funding for the design and construction of the "L" Street Pond Alum Injection Stormwater pilot project. The project will be undertaken with an Environmental Protection Agency (EPA) 319 (h) grant in the amount of \$265,316 and in cooperation with Escambia County. Matching funds of \$187,714



Bayou Chico



Alum Injection Stormwater Project

will be provided through the District's SWIM program.

Located near "L" and Leonard streets in Pensacola, the stormwater pilot project will use a new, innovative technique in stormwater treatment. When alum is mixed with water, it forms a gelatinous floc, binding up particulate matter in its matrix. The floc settles quickly and the mass tends to sweep through the water column gathering up any dirt particles that escape being bound into the mass. Thus pollution removal rates tend to approach 100 percent. The "L" Street system will have a pump installed at the bottom of the settling basin to remove the floc and send it to a domestic wastewater treatment system. This results in the complete removal of contaminants from the water column.

Sand and Gravel Aquifer Potentiometric Surface Mapping Completed

In October and November 2000, District staff collected water level data from about 130 Sand and Gravel Aquifer wells in southern Escambia County. These data were used to prepare potentiometric surface maps of the main producing and surficial zones of the aquifer. Mapping was undertaken to determine how the aquifer was responding to drought conditions of the preceding two years. Water levels were determined to be as much as 10 feet below normal. The mapping project was undertaken in cooperation with the Escambia County Utilities Authority and other local cooperators.

Evaluation of Sediment Quality

An agreement with the University of Florida Institute of Food and Agricultural Services (IFAS) was approved in March that will provide for an evaluation of sediment quality in the Pensacola Bay System. A previously completed sediment quality data base will be used as will newly collected data. Distribution of sediment contaminants in the Pensacola Bay System will be mapped, sediment quality will be evaluated and recommendations for future monitoring, management and restoration will be developed. This information will enable the District to define management objectives and specify strategies for addressing areas where sediment quality is poor.

Wet Prairie Restoration Research

Phases I and II of a wet prairie habitat restoration research project on approximately 169 acres in Santa Rosa County within the District's Garcon Point Water Management Area have been completed. During these phases, baseline data were collected, plant diversity examined, vegetative cover assessed and ranked according to relative abundance and a web site established to provide easily accessed information about wet prairie research.

Phase III of the restoration project was approved in March and it was begun in April. During Phase III, prescribed burning activities will be conducted and plant species will be reinventoried after the controlled burns have taken place. Researchers will be able to determine which species should occur naturally and which will need to be reintroduced. This project is being undertaken in conjunction with the University of West Florida and is expected to continue until wet prairie habitat has been restored on the site.

Mitigation Lands

In March, the District entered into an agreement with Escambia County to assist the

county with the purchase of lands for the Jones Swamp Preserve through the Department of Transportation (DOT) wetlands mitigation program. Jones Swamp is part of the Bayou Chico watershed, a part of the Pensacola Bay System that has been impacted by development and nonpoint source pollution. The county will initiate the actual purchase of lands and will own and manage the land in perpetuity as part of the Jones Swamp Preserve.

Stricter Standards for Potable Wells in Designated Areas

Since 1998, DEP has identified and designated areas of known ground water contamination. In such areas, the establishment of stricter standards for the construction of potable wells is required. A portion of southern Escambia County was delineated as an area of potential ground water contamination based on the existence of numerous contamination sites such as the Agrico Chemical and the Escambia Treating sites.

The public water supply needs of most of the area are met by large public water supply systems and the District has not issued any permits for the construction of domestic potable supply wells within the affected area. Permits, however, were issued for landscape irrigation wells but these did not fall under the more stringent well construction and water testing requirements. When a landscape irrigation well permit was issued, the District informed the recipient that the well was in a ground water contamination area and the holder was encouraged to contact the Escambia County Health Department to have the water quality tested.

In February, the Governing Board approved a well construction moratorium for the Agrico and Escambia Treating contamination areas. The moratorium, however, does not apply to any wells used for the investigation, monitoring or remediation of ground or surface waters.

Land Acquisitions

In June, the Governing Board approved the acquisition of a significant tract of land in Santa Rosa County, near Escribano Point. Consisting of 1,176.6 acres, the tract is located within the Yellow and Blackwater river basins. Approximately 30 percent of the property consists of uplands, primarily xeric hammock/sandhill habitat. The remaining 70 percent consists of wet flatwood, disturbed wet prairie and baygall wetlands. A rich mosaic of upland, wetland and estuarine habitats, the property fronts East Bay and the Yellow River Aquatic Preserve. These estuarine areas represent a significant amount of the undisturbed estuarine habitat remaining in the entire Pensacola Bay System. The property located at Grassy Point connects to approximately 200 acres of estuarine marsh habitat. The District closed on this property in September.

In February, the purchase of 237.9 acres on the Blackwater River near Milton in Santa Rosa County was approved. The acreage consists of seven distinct parcels within or adjacent to the lower floodplain of the Blackwater River or Pond Creek. Acquisition of these tracts will permanently protect over 2.2 miles of the east and west banks of the Blackwater River and approximately one mile of the north bank of Pond Creek. Final closing on the property took place in August.



Hydrodynamic Analysis of St. Andrew Bay

An agreement to assess and document changes in salinity in the North Bay of the St. Andrew Bay watershed was approved in September. The District entered into the agreement with the Florida Agricultural and Mechanical University (FAMU) – Florida State University (FSU) College of Engineering for this project, which will analyze hydrologic conditions and freshwater inflows from the Deer Point Lake watershed. This two-year project was incorporated into the St. Andrew Bay Watershed Surface Water Improvement and Management (SWIM) plan. Technical data developed also will benefit future water supply planning and ecosystem management efforts in the area. FSU will provide unlimited use of its supercomputing facility in model development and analyses.



St. Andrew Bay

Hydrologic Restoration for Choctawhatchee Floodplain

District-owned lands along the Choctawhatchee River are slated for wetland hydrologic restoration. Restoration activities will include removal of earthen fill associated with old logging roads to allow the natural vegetation to return. Old fill and culverts constructed across waterways will be removed to restore the natural flow conditions. Low water crossings also will be installed at several locations.

The Choctawhatchee River floodplain has been logged extensively in past years. Silvicultural activities, primarily logging access roads, have blocked natural drainages in sloughs and altered the hydrologic regime over much of the floodplain. Funds for this restoration project will be provided as mitigation for the Department of Transportation's (DOT) road widening and improvements along U.S. Highway 98 in Walton County.

Saltwater Intrusion Model Under Development

Work continued on the first of two planned saltwater intrusion models of the Floridan Aquifer in Santa Rosa, Okaloosa and Walton counties. The model domain covers the western flank of the Floridan Aquifer potentiometric surface depression centered on Ft. Walton Beach. When complete, the model will be used to assess the sustainability of Floridan Aquifer withdrawals in southeast Santa Rosa and Okaloosa counties. The work is scheduled for completion in early 2002.

Evaluation of Water Quality

In September, the District initiated an agreement with the Choctawhatchee Basin Alliance for an evaluation of water quality in the Choctawhatchee Bay watershed. The agreement provides for the compilation of existing water quality data and the collection of new data to allow for a comprehensive assessment of water quality and nutrient loading.

Recent declines in the overall quality of the Choctawhatchee Bay waters have heightened public awareness of deteriorating conditions and the general health of this estuarine ecosystem. Visible changes in the bay, its river and tributaries and nearshore Gulf of Mexico waters have been observed. There have been extensive algal

blooms, fish kills and a number of dolphin deaths in the Choctawhatchee Bay.

Although a variety of causes have been suggested for the weakening condition of the Choctawhatchee Bay, comparisons of historic and present day water quality indicators suggest that increased nutrient and sediment loading may be the primary reason for the deteriorating condition of the bay.

Monitoring for Deer Point Lake Watershed

The operation of a streamflow and rainfall monitoring program for the Deer Point Lake watershed in Bay County will be implemented for another year. The agreement, which was approved in September, will continue the surface water monitoring network that includes six discharge stations and three rainfall stations. These monitoring stations measure dry weather and storm event discharge as well as rainfall and stage levels. The data measured provide information to quantify streamflow discharges in the basin during wet and dry weather conditions. These data can be used to manage water resources and to identify areas that may require land acquisitions or additional protection.

Evaluation of Wetland Mitigation

An evaluation of wetland mitigation in the Choctawhatchee watershed will be undertaken through an agreement with the U.S. Environmental Protection Agency (EPA). The project will evaluate the overall success of conservation easements, and similar private conservation actions, as wetland mitigation within the watershed. Various areas and types of permitted wetland impacts will be tabulated and mapped. Associated mitigation actions also will be tabulated and mapped by wetland type and mitigation category and a sample of mitigation sites will be evaluated for implementation success. The study will identify and characterize privately managed wetland conservation lands in the study area, as well as evaluate the general effectiveness of mitigation in protecting regional wetland resources.

Devil's Swamp Purchased with Mitigation Funds

Devil's Swamp, approximately 2,649 acres located in Walton County near the Choctawhatchee River and Bay, was approved for purchase by the Governing Board in July. Mitigation funds, which were made available as a result of a DOT project that involved the widening of Highway 98, were used to purchase the property. The property is near the community of Bunker and is adjacent to land already owned by the District.

This property will enhance the District's efforts to protect and preserve the water resources of the lower Choctawhatchee River. Through management, including prescribed burning and reforestation with native species, these lands will be maintained as natural habitats and provide resource-based recreational opportunities for the public. Long-range plans are to restore the disturbed baygall habitat by planting a mixture of appropriate wetland tree species. Hydrologic restoration at stream crossings is underway. Upland habitat restoration also may be undertaken by converting the sand/slash pine plantations to a natural xeric sandhill vegetation community of longleaf pine and wiregrass. The District closed on this property in November.

Abandoned Well to be Capped

In February, the District entered into an agreement with the City of Lynn Haven (Bay County) to share in the costs of plugging a 12-inch Floridan Aquifer well that is within the city limits. Abandoned wells have been identified as potential threats to the area's ground water resources. The Floridan Aquifer can be contaminated if these abandoned wells are not properly capped or plugged because they can serve as conduits from the surface to the ground water resource.

Archaeological Surveys for Econfina Creek and the Upper Choctawhatchee River

An initial, baseline archaeological survey of the Econfina Creek drainage basin in Bay, Washington and Jackson counties was completed in April. The survey was undertaken through an agreement with Panamerican, Inc., and through an \$18,450 historical preservation grant-in-aid from the Florida Department of State, Division of Historical Resources, Survey and Planning Grants Program. Several noteworthy sites were identified as a result of the survey. These included 122 prehistoric and three historic sites, which were the early 19th century William Gainer, Angus McQuage and William Walsingham homesteads (early settlers of the area). Several of the sites are considered to be significant and may be eligible for nomination to the National Register of Historic Places.

An agreement with Panamerican Consultants, Inc., was initiated in April to conduct archaeological research on District lands along the upper Choctawhatchee River. Panamerican Consultants, Inc., was granted \$20,500 from the Department of State, Division of Historical Resources, to undertake this work on behalf of the District. The District contributed additional funding for this project as well as in-kind services such as GIS mapping, administrative/field assistance and other services.

Rattlesnake Lake Improvements

Water quality and habitat restoration activities were completed for the Rattlesnake Lake area in Washington County in April. Recreational improvements also were completed at



Rattlesnake Lake at low water

this popular site. A new road to a group camping area was built along with a boat ramp and pavilions. Rattlesnake Lake is popular for fishing, picnicking and general recreational activities.

Plans Made to Restore 759 Acres

Plans to restore approximately 759 acres of disturbed upland habitat within the Econfina Creek and Yellow River water management areas were made this past year. Longleaf pine habitat restoration activities will be undertaken during 2001-2002. Before these activities can begin, the areas will undergo site preparation to eliminate varying densities of competing upland oak trees and scrub vegetation that significantly impact longleaf pine restoration efforts. By September, approval was obtained to purchase 458,000 longleaf pine tubelings and 100,000 wiregrass plugs for these reforestation and habitat restoration activities.

Erosion Control and Habitat Restoration Activities

During 2001, the District entered into two agreements with the Orange Hill Soil and Water Conservation District to provide erosion control and habitat restoration activities at five sites on District lands in the Econfina Creek recharge area. These activities will be funded by a U.S. Environmental Protection Agency (EPA) Section 319 (h) grant and are part of an ongoing effort to control erosion and restore habitats in the Sand Hill Lakes area. These activities include projects at Rattlesnake Lake, Lake # 96, Payne Pond, Mabel Porter Pond # 1 and Fox Pond.

Recreational Improvements for Econfina Creek

In August, the District made plans to construct a canoe launch facility for Econfina Creek near the Highway 20 right-of-way. The proposed launch facility will include a park, boardwalk, deck, floating dock, one way unloading/loading loop road and expanded parking facilities. This project, when combined with the District's and the DOT's cooperative erosion control and highway beautification project

involving natural landscaping, will make the area a more attractive, safe and user-friendly recreational site.

Security on District Lands

Agreements between the District and the Bay and Washington County Sheriffs' Departments were approved by the Governing Board in September that will provide law enforcement and security services for several recreational sites in these two counties. Added security will be provided during the spring and summer, which are typically the busiest months.

St. Andrew Bay Big Picture Brochure

A new brochure for the St. Andrew Bay watershed was developed and printed in 2001. The brochure was the third in a series of six that are planned for priority water bodies in the SWIM program. Topics discussed in the brochure include geological and hydrological features, seagrass beds, water quality concerns, point and nonpoint sources of pollution and

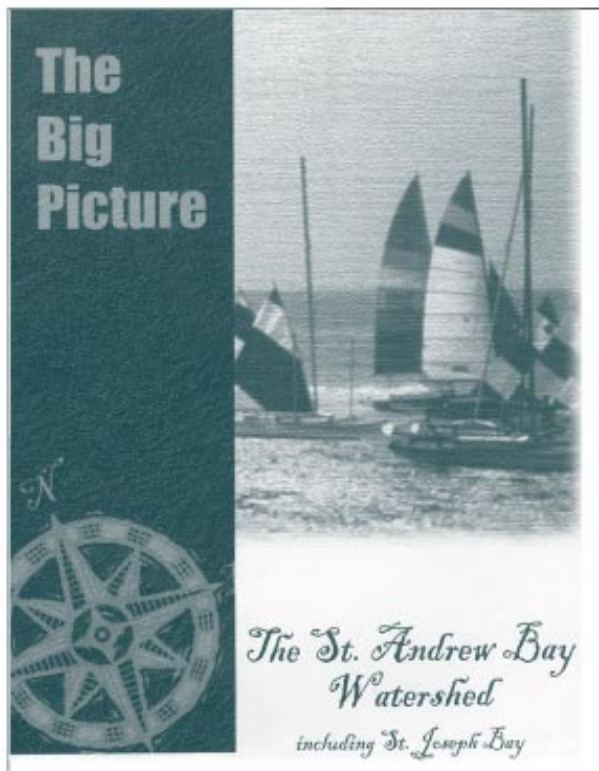
basin initiatives. The brochure opens to a full color satellite map of the watershed that measures 21 by 24 inches. Copies of the brochure can be obtained from the District's Public Information Office.

Land Acquisitions

In April, the Governing Board approved the purchase of a conservation easement of 1,111 acres along Holmes Creek in Washington County. The property contains significant frontage along the creek and consists of approximately 400 acres of mixed bottomland hardwood forest habitat. Timber harvesting on this acreage is precluded to protect the floodplain habitat. The conservation easement will enhance the District's water quality protection and preservation efforts for the creek and provide enhanced downstream water quality protection and preservation efforts for the Choctawhatchee River and Bay System. The District closed on the property in August.

In June, the purchase of 1,034.2 acres (known as Hobbs Pasture) located in Bay County within the Econfina Creek basin received approval from the District's Governing Board. The property has significant water resource protection and preservation benefits with over two miles of lake and creek frontage on Deer Point Lake and Econfina and Cedar creeks. Econfina Creek flows into Deer Point Lake, the source of public water supply for Panama City and the surrounding area. Hobbs Pasture contains one of the area's last remaining stands of high quality, old growth longleaf pine/wiregrass habitat. The District closed on the tract in September.

Also in June, approximately 1,075.5 acres in Washington County were approved for acquisition. Sixty percent of this property, located in the Holmes Creek basin, consists of mixed bottomland hardwood floodplain forest and mesic pine/hardwood upland habitat. The property contains the southern half of a spring-run stream associated with Cypress Springs as well as numerous "boiling" springs within the Holmes Creek floodplain. Acquisition of this parcel will provide significant water quality protection for more than three miles of Holmes Creek. An additional parcel contiguous to the



1,075.5-acre tract also was approved for acquisition in June. This 39.3-acre parcel consists of mixed bottomland hardwood habitat and wetlands associated with the floodplain of the creek. The District closed on both of these tracts in September.

Two smaller parcels also were approved in June by the Governing Board. These included a 131.2-acre tract and a 15-acre parcel. Both parcels are located in Washington County and are in the Econfina Creek basin. The 131.2-acre tract is important to the long-term protection of Porter Lake and the Econfina recharge area. Half of the 15-acre tract consists of lake bottom associated

with Hammock Lake and the remaining acreage contains xeric sandhill uplands. The District closed on the 131.2-acre parcel in September.

In August, the Governing Board approved the purchase of two small parcels totaling approximately 28 acres that will eliminate an inholding and add an adjacent parcel to the Choctawhatchee River Water Management Area. Both parcels are a mixture of xeric sandhill uplands, mesic pine/hardwood uplands and mixed bottomland hardwood habitat within the floodplain of the lower Choctawhatchee River. The final closing on this property took place in November.



Northwest Florida Water Management District Governing Board Chairman J. Russell Price accepts the transfer of the 1,034.2-acre Hobbs Pasture Tract on behalf of the District during a special ceremony on September 27, 2001. The property provides significant water resource protection since it borders Deer Point Lake, which serves as a water supply source for Panama City and the surrounding area.



ACF River Basin Compact Negotiations

During 2001, Florida, Georgia and Alabama continued deliberations on a water allocation formula proposal for the Apalachicola-Chattahoochee-Flint river basin. The negotiations were begun soon after the President of the United States signed a Compact Agreement in November of 1997.

Throughout the deliberations, Florida's ongoing concern has been the protection and preservation of the diversity and productivity of the Apalachicola River and Bay. It was recognized that there was a need to consider cumulative demands and impacts on the system and on the range of historical flows whether daily, seasonally, monthly or annually. Maintaining the historic or natural flow regime has been paramount for Florida.

In December of 2000, the talks were extended to May 1, 2001; then to June 15, 2001; June 29, 2001; July 30, 2001; September 13, 2001; and November 13, 2001. In November, the talks were extended once again – to January 15, 2002 – to allow the three states additional time to reach an agreement.

Tates Hell Restoration

Development of a hydraulic restoration plan for the Tates Hell Swamp area continued. In coordination and cooperation with the Division of Forestry, priority restoration areas were selected and preliminary designs for restoration activities were developed. These were based, in large part, on the demonstration projects completed in the late 1990s. Preliminary designs have been undertaken for monitoring to determine the effectiveness of the restoration activities and establish a baseline for long-term monitoring.

Apalachicola Assessment of Municipal Stormwater Systems

The District completed a report titled, *Analysis of Stormwater Inputs to Apalachicola Bay*, and cooperated with local governments in an effort to promote appropriate stormwater treatment. In the report, varying degrees of water quality degradation were documented and recommendations were made for improved treatment. Treatment of nonpoint source pollution is important for basic human health, as well as the recreational, tourism and commercial fishing interests. Technical assistance was provided to Franklin County, the City of Apalachicola and other communities within the county.

Port St. Joe Acquires Canal

The City of Port St. Joe was awarded a \$350,000 grant by the District in June to assist in the acquisition of a freshwater canal to supply water for municipal and industrial use for coastal Gulf County. The canal, which receives its water from the Chipola River, will provide the city with a secure and reliable long-term water supply. Ground water resources in the vicinity of the city cannot support the increased demands made on them and the canal will help reduce those demands. The cost of the acquisition was \$700,000 with the District committing to a 50 percent match (or not more than \$350,000).

Apalachicola River and Bay Management Plan

During 2001, District staff began updating and revising the existing Apalachicola River and Bay Surface Water Improvement and Management (SWIM) plan. The plan provides a comprehensive basinwide strategy for management of the water resources in the Apalachicola

ecosystem. A basinwide approach is particularly complex due to the interstate nature of the entire system which includes portions of Alabama and Georgia. This plan is revised every few years.

Apalachicola Oral History Project

An Apalachicola River and Bay Oral History project was initiated this year. A series of interviews were planned and begun. Those whose lives depend on the Apalachicola River and Bay are often astute observers of environmental changes over the decades. Their perceptions and memories of historic conditions of the river and bay are valuable as real-life histories. This oral history will attempt to capture the story of the river and bay as they existed in earlier decades before the reservoirs, railroads and other significant changes occurred. Oral history interviews are expected to continue through 2002. The project will ultimately result in a written collection of these observations.

Abandoned Wells Plugged

In February, the District entered into an agreement with the City of Graceville (Jackson County) to share in the costs of plugging and abandoning one 16-inch and one 6-inch Floridan Aquifer well that are within the city limits. Abandoned wells that are not properly plugged are potential threats to the area's ground water resources and could allow the Floridan Aquifer to be contaminated.

Chipola River Cleanup Event

The District was a partner in the Marianna Boy Scouts' cleanup day of the Chipola River. Undertaken in conjunction with National Public Lands Day, the Boy Scout troop removed over 200 pounds of litter from the District's Upper Chipola River Water Management Area and Florida Caverns State Park. Items removed from the shoreline included an old microwave oven and half of a dismantled truck. The event took place on September 29.



Apalachicola River



Leon, Jefferson and Wakulla Counties

Fuller Road Stormwater Treatment Facility

For a number of years, the District has been working with Leon County to develop and implement a stormwater treatment plan for the 330-acre Okeeheepkee Basin in the southwestern portion of the Lake Jackson watershed. Most of the basin was developed well before existing stormwater rules came into existence and, as a result, inadequately treated stormwater discharges tons of pollutants into the Meginniss Arm portion of Lake Jackson each year. The District's primary focus in this basin has been the construction of a regional stormwater treatment facility north of Fuller Road at the point where the basin tributaries discharge to the lake. After working together to acquire land for the treatment facility, Leon County and the District entered into an agreement that assigns responsibility for design of the facility to the District.



Lake Jackson

The design process began in 2000, with the District funding and participating in an archaeological survey of the 26.2-acre parcel. The survey was required due to the site's proximity to the Lake Jackson Mounds State Park, a property listed on the National Register of Historic Places. This survey provided a systematic archaeological appraisal of the project area and an assessment of discovered cultural resources.

A total of 112 prehistoric Indian archaeological artifacts believed to be associated with the mound builders, chiefly prehistoric pottery and a few flint flakes, which had been sharpened or showed signs of prehistoric use, were recovered, cataloged and studied. The results were published in a report titled, *Okeeheepkee Prairie Phase I Archaeological and Historical Survey, Leon County, Florida*, by Carlos Martinez, the archaeologist who supervised the survey.

With the completion of the archaeological report, the conceptual design of the stormwater treatment system has proceeded. The design will incorporate extensive wetland creation as a treatment facility to overcome a space limitation that precludes a classical pond system. Despite the lack of conventional open water, the advanced design is expected to provide pollutant removal values that should exceed those of more conventional treatment options.

The area around the stormwater treatment facility will be developed into a passive park with walking trails, interpretive signs that explain the stormwater treatment process and possibly a wildlife observation platform overlooking Meginniss Arm. The wetlands along the Meginniss Arm shoreline will be restored to reverse the impacts of historic cattle grazing.

Lake Jackson Restoration Project

The Lake Jackson Restoration Project was concluded in March. This large-scale restoration was a coordinated effort involving a number of partners, including Leon County, the District, the Florida Fish and Wildlife Conservation Commission and the Florida Department of Environmental Protection (DEP). The work involved removal of approximately two million cubic yards of nutrient-rich muck from the dry lake bottom at a cost of over \$8 million. Extremely low lake levels associated with the drought and sinkhole activity provided perfect conditions to facilitate a large-scale lake restoration project.

In the summer and fall of 2001, tropical weather systems and closer-to-normal amounts of rain began to refill the lake; however, the lake level was still well below normal by the end of the year.

The Leon County Board of County Commissioners held a rededication ceremony for Lake Jackson in October and provided a plaque to the District for its role in the restoration project.

Stormwater Flow Monitoring

For the past 11 years, the District has operated a stormwater monitoring network for the City of Tallahassee and Leon County. In September, an agreement to continue operating 31 surface water and rainfall data collection stations was approved. The monitoring program provides dry weather and storm event discharge data for major drainage basins in the city and county. The data provide continuous records of precipitation and surface water discharges that are used to design and implement improvements in the stormwater drainage system. Subsequent to initiating stormwater drainage improvement projects, flow data are analyzed to verify and quantify improvements to the drainage system.

Cooperative Water Reuse Project

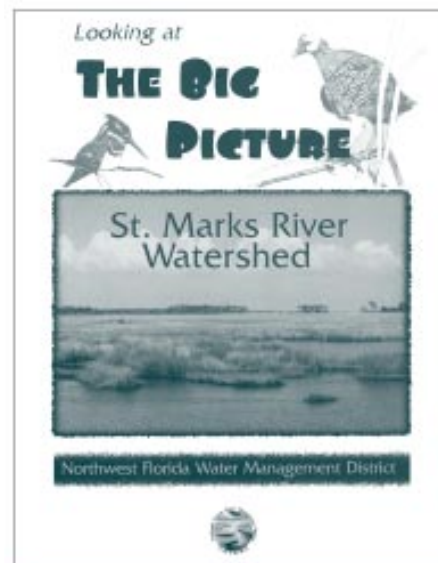
A cooperative project between the District and the City of Tallahassee for an advanced wastewater treatment system and reclaimed water distribution system for the Southwood development complex was approved in February. The District agreed to contribute \$300,000 (or 20 percent) toward the construction of the project. Once the project is completed, it will provide approximately 200,000 gallons per day of reclaimed water to Southwood for golf course and landscape irrigation. Reclaimed water is an alternative to using Floridan Aquifer wells, as had originally been planned, and will help preserve the ground water resources. The facility also will provide an additional 100,000 gallons of water for irrigation of state facilities in the area.

Habitat Restoration at Phipps Park

In January, the District made plans to restore and enhance natural longleaf pine and ground cover habitat and to undertake thinning of a loblolly pine plantation to promote their healthy growth in several areas within the Elinor Klapp-Phipps Park. Disease-infected and damaged trees on one site targeted for restoration will be removed to provide sunlight for longleaf pine tubelings and wiregrass plugs that will be planted. Thinning will be undertaken in the loblolly pine plantation to promote healthy and vigorous trees. The District's long-term goal for managing pine plantations is to mimic an old growth pine habitat using a natural regeneration system. The restoration activities were endorsed by the Phipps Park Land Management Review Team and the Phipps Park Land Management Advisory Committee.

St. Marks River Watershed Big Picture Brochure

A new brochure for the St. Marks River Watershed was developed and printed in 2001. The brochure was the second in a series planned



for priority water bodies in the Surface Water Improvement and Management (SWIM) program. Topics discussed in the brochure include geological and hydrological features, water quality, point and nonpoint sources of pollution, threatened and endangered species, research efforts and environmentally protected sites to visit. The brochure opens to a full color satellite map of the watershed that measures 21 by 24 inches. The first Big Picture brochure developed pertained to Lake Jackson. Copies of the brochure can be obtained from the District's Public Information Office.

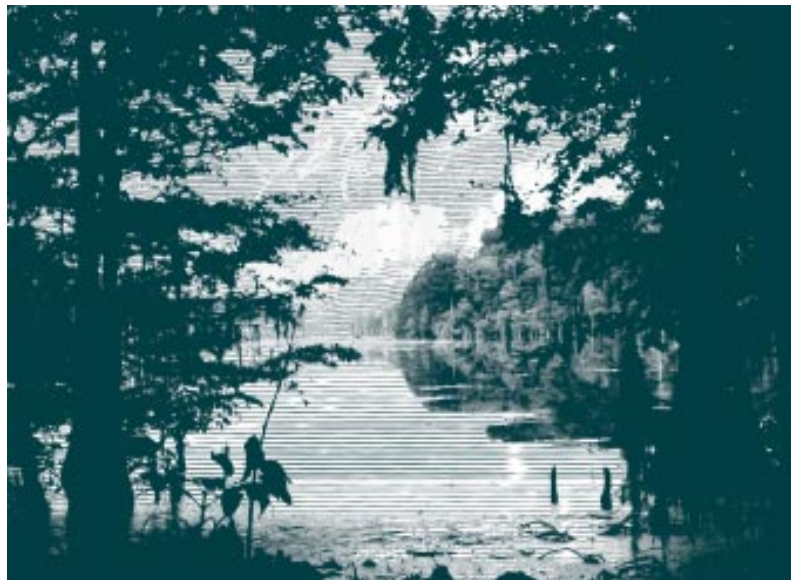
Movement and Fate of Nitrates

An investigation into the sources and fate of nitrates in the ground and surface water resources of Leon and Wakulla counties continued through a joint funding agreement between the District and the U.S. Geological Survey (USGS). The work being conducted by USGS is a component of a larger District-sponsored investigation to determine and quantify the inputs, movement and fate of nitrates as an indicator of nonpoint source contamination of ground water and surface water in the Woodville karst plain. This research effort also may help predict how water quality will change in response to increased nonpoint source loadings as population in the area continues to grow. The study partially funded by a U.S. Environmental Protection Agency (EPA) grant administered by DEP is scheduled for completion in early 2002

Land Acquisitions

In June, an agreement to purchase a 353.8-acre conservation easement in Wakulla County in the Spring Creek/St. Marks River basin was approved by the Governing Board. This tract is located at the headwaters of Spring Creek. It is a mix of upland and wetland habitats, primarily upland mixed forest, floodplain forest and basin marsh associated with the headwaters of Spring Creek. It is bounded on the west by the St. Marks National Wildlife Refuge. The District closed on this tract in September.

In August, the Governing Board approved the purchase and sale agreement for a conservation easement on 63 acres, southwest of Leon Sinks. The property is an important portion of the Wakulla Springs Protection Zone. Fisher Creek, a typical karst-area stream, begins and then flows some eight miles through the National Forest before disappearing underground on this tract. On the property are a number of deep sinkholes, each filled with clear water, along with considerable areas of undisturbed floodplain and basin swamp. The property is a mixture of upland and wetland habitats, primarily upland sandhill, upland mixed forest, black-water stream, mixed hardwood swamp and cypress swamp. This conservation easement will ensure the continuation of land use practices that protect ground water and will help in preserving the quality of water flowing to Wakulla Springs. The District closed on this property in December.



Wakulla county scene

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT COMBINED BALANCE SHEET

SEPTEMBER 30, 2001

Assets

Current Assets:		
Cash and Cash Equivalents	\$	182,266
Cash With Fiscal Agent		2,589,969
Investments		18,205,663
Accounts Receivable		460
Due From Other Governmental Units		2,331,999
Due From Other Funds		1,409,277
Deposits		205

Total Current Assets	\$	24,719,839
-----------------------------	-----------	-------------------

General Capital Assets (Net of Applicable Depreciation):		
Land and Improvements		109,801,549
Buildings and Improvements		556,684
Machinery and Equipment		817,358

Total General Fixed Assets	\$	111,175,591
-----------------------------------	-----------	--------------------

Other Debits:		
Amount Available in Debt Service Fund		5,009,469
Amount to be Provided for Retirement of General Long-Term Debt		4,710,911

Total Other Debits		9,720,380
---------------------------	--	------------------

Total Assets and Other Debits	\$	145,615,810
--------------------------------------	-----------	--------------------

Liabilities and Fund Equity

Liabilities:		
Refundable Deposits		44,139
Accounts Payable and Accruals		453,485
Deferred Revenue		317,295
Due to Other Funds		1,409,277
Revenue Bonds Payable		9,260,000
Capital Lease Payable		19,466
Liability for Compensated Absences		440,915

Total Liabilities	\$	11,944,577
--------------------------	-----------	-------------------

Fund Equity:		
Investment in General Capital Assets	\$	111,175,589

Fund Balances:		
Reserved:		
Debt Service		5,009,469
Land Acquisition		905,351
Land Management/Acquisition		3,608,354

Total Reserved	\$	9,523,174
-----------------------	-----------	------------------

Unreserved:		
Undesignated		713,669
Designated		12,258,801

Total Unreserved	\$	12,972,470
-------------------------	-----------	-------------------

Total Liabilities and Fund Equity	\$	145,615,810
--	-----------	--------------------

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
FINANCIAL STATEMENT**

For Fiscal Year Ended September 30, 2001

Revenue and Other Receipts

Federal Sources:

DEP/EPA-Ambient Monitoring of Surface Water	\$ 84,878
DEP/EPA-Best Management Practice Application-Sand Hills Lakes	55,871
DEP/EPA-Nonpoint Source Implementation Grant	29,884
DEP/EPA-Nonpoint Source Nitrate Analysis	53,909
DEP/EPA-Nonpoint Source Implementation Grant-"L" Street Pond	2,161
DEP-Surface and Ground Water Sampling and Maintenance of the Ambient Monitoring Network	166,367
Total Federal Sources	\$ 393,070

State and Local Government Sources:

DEP-Apalachicola Freshwater Needs Assessment	474,477
DEP-Statewide Surface Water Restoration Projects	745,487
DEP-Chapter 62-524 F. A. C. Program Implementation	60,000
DEP-Sweetbay Wetlands Restoration Project	452
DEP-General Appropriations	1,086,173
DEP-Surface Water Improvement and Management Program	307,606
DEP-Florida Forever Trust Fund	6,385,016
DEP-Preservation 2000 Trust Fund	1,882,279
DEP-Water Management Lands Trust Fund	10,624,681
DEP-Surface Water Management Permitting Program (Wetlands)	300,000
DOT-Mitigation Plan and Restoration Projects	206,898
Dept. of State-Econfina Creek Archaeological Survey Project	2,730
Leon County Lake Jackson SWIM Match	569
Escambia County Pensacola Bay SWIM Match	15,000
Walton/Okaloosa/Santa Rosa Regional Utility Authority	8,795
ECUA Cooperative Agreement-Potentiometric Surface Mapping	17,000
City of Quincy Stream Flow and Rainfall Monitoring	2,700
City of Tallahassee Stormwater Monitoring	35,643
Leon County Stormwater Monitoring	62,096
Bay County Stormwater Monitoring	9,700
Bay County Deer Point Watershed Monitoring	27,725
City of Graceville Abandoned Well Plugging	4,375
City of Lynn Haven Abandoned Well Plugging	4,453
Panacea Area Water System Abandoned Well Plugging	4,945
Santa Rosa Bay Bridge Authority	105,563
Other Funding	11,209
Total State and Local Government Sources	\$ 22,385,572

Agency Sources:		
Ad Valorem Taxes (.05 mill)	\$	2,069,188
Permit and Inspection Fees		547,331
Regulatory Penalties		4,717
Interest		811,695
Timber Sales		200,687
Miscellaneous		23,489
Total Agency Sources	\$	3,657,107
Total Revenues	\$	26,435,749
Other Sources:		
Sale of General Fixed Assets		6,749
Total Other Sources	\$	6,749
Balance Brought Forward from Prior Fiscal Year	\$	19,965,248
Total Revenue, Other Sources and Cash Balance	\$	46,407,746
Expenditures		
Salaries and Benefits		4,657,031
Contractual Services - Consultants		1,128,816
Operating Expenses		1,184,320
Grants and Aids		2,648,255
Operating Capital Outlay		11,697,173
Debt Service		2,596,507
Total Expenditures	\$	23,912,102
Fund Balance		
Reserved:		
Debt Service		5,009,469
Land Acquisition		905,351
Land Management/Acquisition		3,608,354
Total Reserved	\$	9,523,174
Unreserved:		
Undesignated		713,669
Designated		12,258,801
Total Unreserved	\$	12,972,470
Total Expenditures and Fund Balance	\$	46,407,746



DISTRICT HEADQUARTERS

(10 miles west of Tallahassee on U. S. Highway 90)
 81 Water Management Drive
 Havana, Florida 32333-4712
 (850) 539-5999
 Fax (850) 539-4380
 Suncom 771-2080

MARIANNA OFFICE
 4765 Pelt Street
 Marianna, Florida 32446
 (850) 482-9522
 Fax (850) 482-1376
 Suncom 789-9522

PENSACOLA OFFICE
 2261 W. Nine Mile Road
 Pensacola, Florida 32534-9416
 (850) 484-5133
 Fax (850) 484-5133
 Suncom 690-5125

on the web: www.state.fl.us/nwfwmd

Annual Report 2001

Produced by the Northwest Florida Water Management District’s Office of Public Information

Design, Artwork
 and Layout: Tracy Hunt

Text and Concept: Georgann Penson (Regional Water Supply Planning by Ron Bartel)

Editing: Carol Bert, Duncan Cairns, William Cleckley, Faith Eidse, George Fisher, Lance Laird, Anne Lester, Tyler Macmillan, Lee Marchman, Tom Pratt, Lucinda Scott, Paul Thorpe, Dan Tonsmeire, Carolyn Wise, Nick Wooten

Annual Report 2002-1