

MESSAGE FROM THE CHAIRMAN AND GENERAL MANAGER



Dear Governor Almond, Members of the General Assembly and fellow Rhode Islanders,

The Rhode Island Water Resources Board and Rhode Island Water Resources Board Corporate are pleased to submit the fiscal year 2001 Annual Report. There is no better way to begin this report than to express our thanks to all that worked with us to make last year a collective success. Much has been done, more needs to be done, and we need to continue to adapt to changing conditions as we encounter them together. This annual report highlights successes realized through vision, hard work, and collaboration with Rhode Island's water community.

Both the Board's and Board Corporate's basic missions are to ensure the proper development, utilization, allocation, and conservation of the state's water resources as well as to finance water projects. The Board is firm in its conviction that in order to ensure that Rhode Island's water resources are developed, conserved and protected, partnership is of the utmost importance. Many of the accomplishments realized during 2001 were the product of hard work carried out by the dedicated members of the General Assembly, state departments, Board and Board Corporate Directors, concerned citizens, watershed groups, the state's most important water suppliers and staff. It is not surprising that there is quite a "grassroots" feel to many of the water successes of 2001.

A supplemental water study has been initiated with co-shared financing with the Providence Water Supply Board. The ultimate goal is location and determination of the quantity of alternative water supply available for future use. The statewide emergency interconnection program rules and regulations were implemented by the state's water suppliers, providing 25% and 50% matching monies for emergency interconnection to "wheel water" during water emergencies. The drought management task force, consisting of state departments and agencies, concerned citizens and watershed groups, are developing a long-term plan for statewide planning. Moreover, as always, the water quality and quantity improvements we continue to make are not only for today, but also for future generations of Rhode Islanders.

During Phases I & II of the water quality protection program, the Board and Board Corporate worked with the state's water suppliers to purchase approximately 2400 acres of watershed protection land and fund over \$4,200,000 of water quality improvement projects. Working with the US Geological Survey, Brown University, the University of Rhode Island and several watershed groups, the Hunt River watershed study was completed and eight other watershed studies undertaken for water allocation reports, as per the General Assembly's mandated responsibility to the Board. The state's water supply systems management plans, concurrently developed and coordinated with community comprehensive plans, have been implemented; 30-month updates are being submitted. Water planning information now benefits many state departments with a single plan submission, relieving the state's water suppliers of multiple reporting.

We continue to respond to water needs, but we do this only through successful partnerships developed in the Rhode Island water community. To all who played a role in helping Board and Board Corporate members and staff to reach these goals, we give our thanks. We, as well as Rhode Island as a whole, have much to look forward to in 2002. The Board and Board Corporate members and staff anticipate a full plate of water projects, which hold many challenges and much promise. We shall depend once more on you in this shared commitment to partnership. We look forward to not only working for you, but with you, to make the 2002 water community the best Rhode Island has ever experienced.

A handwritten signature in cursive script, reading "Daniel W. Varin".

Daniel W. Varin
Chairman

A handwritten signature in cursive script, reading "M. Paul Sams".

M. Paul Sams
General Manager

About the Organization

HISTORY

The Rhode Island Water Resources Coordinating Board was formed in 1964 for the explicit purpose of acquiring 8600 acres in West Greenwich and Coventry for the proposed Big River Reservoir Water Supply Project. In 1967, under Governor John Chafee's leadership, the agency was renamed the RI Water Resources Board and empowered with broad legislative authority over statewide water supply. Shortly thereafter in 1970, the RI Water Resources Board Corporate was established as a water facilities and infrastructure financing arm of the Water Resources Board. Over the years, the two agencies collectively invested millions of dollars in scientific investigations, municipal water supply infrastructure design and construction, watershed protection, policy development and program coordination.

In 1993, the General Assembly declared that the Big River Management Area would be considered "Open Space" until such time that the need for a reservoir could be absolutely demonstrated. Nonetheless, during this decade, several other major engineering projects were undertaken across the state in which the agency played a significant role. Those most familiar to the public include the East Bay Bristol County Pipeline and the Providence Project.

In 1997, the Water Resources Board assumed water supply planning duties previously carried out by the RI Dept. of Environmental Management. In 1999, legislation was passed clarifying the powers and duties of the agency regarding its sole water allocation authority. The 1999 law also provided for a means to diversify the Board by adding two new members. The agency was also granted authority to investigate sources of groundwater in the Big River Management Area after a determination that exploration or development of groundwater for future supply was indeed appropriate.

POWERS, DUTIES & REGULATORY AUTHORITY (RI Gen. Laws §46-15 et seq.)

The RI Water Resources Board and the RI Water Resources Board Corporate have broad authority in planning, developing, and managing public water supplies. The agencies work closely with the RI Dept. of Administration, Statewide Planning Program to develop and refine policies affecting water supply, including emergency planning. This year, efforts to draft a drought management plan and water allocation policy are being coordinated at many levels of government.

The RI Water Resources Board and the RI Water Resources Board Corporate can also acquire lands, water rights, and easements for all water supply needs; design and/or construct water supply facilities; lease, sell or effect mergers of water supply systems; and loan or borrow money for water supply facility improvement and land acquisition to protect watersheds. If necessary, the agencies can "take" additional water from an existing water supply source or develop a new water source to supply water beyond the corporate or municipal limits of an existing water district. The agencies accomplish many objectives working in tandem with the twenty-nine major public water suppliers in the state.

MISSION

The Rhode Island Water Resources Board is an executive agency in state government charged with managing the proper development, utilization and conservation of water resources. Its primary responsibility is to ensure that sufficient water supply is available for present and future generations, apportioning the available water to all areas of the state, if necessary.

The Rhode Island Water Resources Board Corporate is a quasi-public corporation separate and apart from the Board. Its primary mission is to establish public water supply facilities, lease facilities or sell water derived from those facilities. Water facilities means wells, well sites, reservoirs, transmission or distribution systems and all associated real estate interests inclusive of water supply equipment. The Board Corporate has the power to revenue bond for the purpose of carrying out the mission of the Water Resources Board.

Since 1991, the Water Resources Board and Board Corporate have jointly administered a state surcharge levied on customers located in major water supply districts. The surcharge of \$.0259 on every gallon of water used by customers (with the exception of senior citizens and commercial agricultural users) is collected by the state and deposited into the General Fund. The money is used to offset costs of new infrastructure, to pay down debt service on bonds and to cover a proportion of agency operations associated with supply functions. Approximately 7.8% of the \$.0259 surcharge is retained by the water suppliers to administer the water supply systems planning program.

Programs

WATER SUPPLY SYSTEMS MANAGEMENT PLANNING

Since 1997, the Water Resources Board has administered the water supply planning process which is now integrated with the RI Dept. of Administration's Comprehensive Community Planning process. This year marks the third year of five-year updates to Water Supply System Management Plans (WSSMPs) submitted by water suppliers producing over fifty million gallons of water per year. These plans contain historical and current data on twenty-nine systems including source water, infrastructure, production data such as safe yield, volume of water withdrawn, water use by category, water quality, supply and demand management. The submission of WSSMPs is a phased process with all updates due by January 31, 2002.

During 2001, eight plans were approved including those for the Cumberland Water Department, Greenville Water District, Harrisville Fire District, Jamestown Water Department, Narragansett Water Department, Newport Water Department, Pawtucket Water Supply Board and the RI Economic Development Corp. Twenty WSSMPs are in various stages of review by multiple agencies including the RI Dept. of Environmental Management, RI Dept. of Health, RI Dept. of Administration, Statewide Planning Program, the RI Division of Public Utilities and the Board. These plans include those for the cities of East Providence, Woonsocket, Providence, and Warwick as well as the towns and/or public water supply districts of North Kingstown, Johnston, East Smithfield, Kent County, North Tiverton, Westerly, the University of Rhode Island, Stone Bridge, South Kingstown, Smithfield, Portsmouth, United Water RI, Bristol County, Kingston, Lincoln, and Pascoag.

During 2001, the Board and the Providence Water Supply Board entered a joint venture to study the Feasibility of Supplemental Water Supplies for the central service area of the state. The study will identify additional water supplies and delivery systems in the amount of 50-million gallons per day for emergency purposes from a combination of near-



Scituate reservoir

by systems, rivers, groundwater, desalted water, and other supplies to sustain over 600,000 people served within the central portion of the state. These supplies and systems will provide an independent source of water in case of failure in the Scituate supply. The program is Phase I of a statewide supplemental water supply program to include the remaining water supply services areas of Rhode Island.

WATER FACILITIES ASSISTANCE

Since 1983, the Water Resources Board has administered a grant program to finance up to 50% of design/construction costs for new public water supply facilities. Funding for this program is provided through periodic general obligation bonds passed by statewide voter referendum. To date, over twenty major system improvements have been funded. The program allowed construction of the Bristol County Water Authority (BCWA) interconnection to the Providence and East Providence water systems, relieving the historically troublesome supply problems for Barrington, Bristol and Warren. The agency is continuing to work with BCWA regarding rehabilitation of aging supply, transmission, and treatment facilities.

Presently, the agency is working with all public water suppliers throughout the state to facilitate much needed emergency interconnections between systems. Four interconnections now provide redundancy of supply and the ability to address water emergencies rapidly and efficiently. Water districts with interconnections include the Lincoln Water Commission with the Woonsocket Public Works Department, the Kent County Water Authority with the Warwick Water Department, the East Smithfield Water District with the Providence Water Supply Board, the Pascoag Utility District with the Harrisville Fire District and a subaqueous crossing from Galilee to Jerusalem in Narragansett. The Water Facilities Assistance Program has been a model of cooperation between state government and local water suppliers. Together, these partners developed rules and procedures, tailoring the program to the needs of water systems to insure flexibility and provide for rapid response.

Any infrastructure improvement that is required under the federal Safe Drinking Water Act may be funded under this program. The fund will continue to address construction of facilities throughout the state as needed to protect and enhance the ability of the state's water systems to provide ample supplies of potable water. The fund will expand within limitations imposed by bonding requirements. Administration of the Safe Drinking Water Act Revolving Loan Fund is a cooperative effort lead by the RI Dept. of Health.



Water storage tank construction in the Big River Management Area

PROPERTY MANAGEMENT

The Big River Management Area (BRMA) consists of approximately 8600 acres of open space, and is the largest publicly owned land parcel in Rhode Island. Its borders extend through portions of the towns of West Greenwich, East Greenwich, Coventry, and Exeter. Largely undeveloped, the land was originally condemned for water supply purposes, though some two-hundred single family dwellings were located there. This year, the Water Resources Board initiated a survey of the parcel to clearly define the boundaries of the original tract acquired in 1964

Today, the land is officially classified as Open Space, yet the BRMA's intended use designation remains water oriented. The property is largely managed according to recommendations put forth in a 1996 land use study. The report laid out a Use Evaluation Protocol—a framework to evaluate suitability and permissibility of various land uses such as water resource management, wildlife management, forestry, historical preservation and environmental education.

The Water Resources Board has maintained a solid relationship with the affected communities and residents living in the area by providing a broad range of services including education and recreation. The property is utilized by the RI National Guard for training exercises while the University of Rhode Island (URI), Brown University and other environmental groups conduct nature walks and routine field explorations. This year, the Board began implementing recommendations from a study of roads and bridges as part of a long-range road maintenance program. The agency continues to take an active role in the planning, zoning and administrative decisions of the towns as they pertain to the BRMA.

In the spring, Board staff coordinated restoration of a gravel bank with the Natural Resources Conservation Service. A 20-acre parcel in was planted with nine different varieties of grasses known to thrive in gravel banks. A local farmer seeded the gravel bank and applied com-

posting material donated by the City of Warwick. Elementary-aged students from the Metcalf Elementary School in Coventry were treated to a science lesson in the field delivered by two biologists from the US Dept. of Agriculture. The children sampled materials in the gravel bank in order to learn about soil profiles and reseeding procedures. The second phase of the project is slated for January of 2002.

Open Space designation precludes many types of development; thus, steps have been taken to remove or relocate structures from the property to better protect the watershed while maintaining passive recreational, educational, and conservation benefits for the public. The Water Resources Board, working cooperatively with the US Geological Survey, is undertaking groundwater investigations in order to develop the potential of BRMA as a drinking water source. Working with the Board and the State Properties Committee, Kent County Water Authority constructed a three-million-gallon water storage tank in BRMA. The water in this tank will provide emergency service and increased water pressure to residents in the Authority's service area.

The Board embarked on Phase II of a model forestry management program on approximately fifty acres in the BRMA. Forestry is an acceptable use as noted in the 1996 land use study. The Board has established a research and education partnership with URI Department of Natural Resources Science and the RI Dept. of Environmental Management – Forest Environment Division. The objective of the selective cutting project is to improve the health of the forest and preserve diverse fish and wildlife habitat while protecting the watershed. This effort is the first phase of a larger undertaking that intends to monitor biodiversity, soil, water, and forest quality in the timber harvest areas. Phase II was completed in 2001. Phase III of the selective cutting program will take place in the Camp Bosco area.



Selective cutting forestry management practice

Programs

WATER ALLOCATION

In 1999, the RI General Assembly granted the agency sole authority to devise a fair and equitable allocation of water resources among users and uses to ensure that long-range considerations of water supply prevail over short term considerations. A multi-year water allocation study is underway which will both inventory and assess the amounts, purposes, timing, location and other characteristics of surface and groundwater sources around the state. The objective is to determine the capacity of the state's water resources to support projected residential growth and economic development.

Presently, the agency is working with the US Geological Survey (USGS) and the University of Rhode Island (URI) on a comprehensive inventory of the quantity of surface water and groundwater resources currently existing, used, or available to support future uses in watersheds around the state. The amount of water available is determined based on historical stream flow levels and areas of stratified drift in the watersheds. The USGS and URI collect known water use data from Water Supply Systems Management Plans prepared by major public water suppliers, other individual businesses that are metered, or by estimating according to predetermined formulas. All water data is being compiled in a database under development by USGS for use by New England states.

The USGS is currently finalizing water availability studies in the Wood-Pawcatuck and Blackstone River watersheds. The Water Resources Board continues to work actively with the Wood-Pawcatuck Watershed Water Use Group. The Board is conducting specialized modeling activities in the Usquepaug-Queen sub-basin of the Wood Pawcatuck watershed. This model will evaluate the effect of present and future water withdrawals by public suppliers, industry, agriculture, and other water users on stream flow and water supply. Various rates of population growth, pumping, and stream flow can be plugged into the model to evaluate alternatives for future water use.

The optimization model study for the Hunt River aquifer was completed and published. The model illustrates various scenarios by which groundwater withdrawals [pumping] can be manipulated to maintain opti-

mum stream flow and supply. The Board collaborated with the USGS, the Town of North Kingstown, the RI Dept. of Environmental Management, and the RI Economic Development Corporation. Similar modeling studies are underway in the Big River Management Area and planned for the Pawcatuck watershed.

The Board initiated new water availability studies in the Pawtuxet, Quinebaug, Moshassuck, and Woonasquatucket basins as well as in Jamestown and on Block Island. Further studies for the remainder of the state will be completed by 2004 consistent with the recommendations of a 1990 study titled Water Supply Analysis for the State of Rhode Island (later adopted as State Guide Plan Element 722). Once complete, the new studies will provide important trend data to be compared to the findings and recommendations of the 1990 plan. This will increase the agency's ability to make projections regarding threatened sources, anticipate water shortages, resolve potential water demand disputes and make recommendations for major capital improvement projects that are consistent with state policies and plans.

In the course of developing water allocation policy, the Board held meetings devoted to minimum stream flow issues. Experts from major federal and state agencies, water suppliers and the farming community presented their viewpoints. Subsequent discussions have centered on how other New England states consider minimum stream flow in water resources management. As part of this mission, the Water Resources Board is leading a taskforce to develop a statewide Drought Plan which will be incorporated into the State Guide Plan. Drought Guidelines have been completed to serve in the interim, which Governor Almond approved in September 2000.

As part of the agency's outreach and education efforts, staff has given presentations on water allocation to the US Environmental Protection Agency, Brown University, the RI Water Works Association, the New England Water Works Association, the Audubon Society of RI and the Washington County Regional Planning Council.

PUBLIC DRINKING WATER PROTECTION



Iron-corroded water main clogged with sediment

This popular program is often referred to by municipal water suppliers as the "penny per hundred" program. For every one hundred gallons of water pumped [by major water suppliers] one cent is collected and set aside specifically for land acquisition or for water quality improvement projects. Land acquisition in proximity to a water source is a proven technique to protect the quality of drinking water supplies. Other projects that contribute to improved water quality include nonpoint source pollution or run-off prevention measures, treatment facility upgrades, water main cleaning or relining, and even the purchase of water conservation kits or watershed signage.

This year, the Board wrapped up Phase II of the Watershed Protection Program. The results reflect significant progress made over the last year to improve the state's valuable water resources. The success of this program could not have been realized without the partnership and cooperation of the land conservation and water supply community.

Programs

99% of total available funds was reimbursed to participating water suppliers in the amount of \$18,343,382.

76% of total available funds were used for land acquisition or land conservation projects in the amount of \$13,858,519, which includes \$244,254 for preparing the watershed protection component of Water Supply Systems Management Plans.

- \$2,192,842 of additional monies was augmented by external sources, maximizing total funds for land acquisition.
- 2410 acres of land were preserved.

\$4,484,863 in funds was used for 63 water quality improvement projects.

- 65% of these WQI funds were used for cleaning, lining and replacement of old water mains.
- \$343,507 was used for the purchase and distribution of water conservation kits.
- \$152,261 was used for design and installation of corrosion control facilities.
- \$141,271 was used for looping of water mains to eliminate dead-ends.
- \$116,635 was used for hydraulic modeling services



Crookfall Brook water quality improvement project and land acquisition

The objective of protecting the quality of the public drinking water supply—not only for today, but also for future generations—is an ongoing challenge. As the Board looks forward to Phase III, staff will continue to respond to water quality and watershed protection needs of the state. The Board is appreciative of all those who played a role in helping the agency reach these goals.

PUMP CENTER INVESTIGATIONS & GROUNDWATER RESOURCES PROTECTION

It is the policy of the Board to encourage the development and management of the state's groundwater resources to minimize stream flow

depletion during summer months and drought periods when stream flow can be critically low. In cooperation with United States Geological Survey (USGS) and in order to accommodate increased growth and allay acute water demands, the Board resumed a study to identify sites at which high-capacity groundwater wells could be developed. Ideally, these wells would yield water of suitable quantity and quality for municipal supply from five underground reservoirs located in the Pawcatuck River Basin in southern Rhode Island. The study involved drilling thirty-three test wells in order to determine the hydraulic properties of the sand and gravel aquifer. Geologic sediment and water samples were collected, and a two-day aquifer test was conducted at each well site. Several sites that could produce an average yield of one million gallons of water per day (700 gallons per minute) were identified. \$1.3 million to protect these valuable wellheads was approved by Rhode Island voters as part of the Open Space bond issue in November 2000.

In 2001, staff completed the identification of all thirty-three well sites. Staff determined that fourteen sites were state or municipally owned, thus already protected. Three sites are not viable because of debris and dwellings in the wellhead area and difficult physical access. Six sites are still viable. The Board will discuss the purchase of development rights or conservation easements with well site owners. The Board is working with many stakeholders on this important land protection/water supply management initiative including the RI Dept. of Environmental Management, the RI Dept. of Administration, Statewide Planning Program, Grow Smart RI, the Audubon Society of Rhode Island and other land conservancy groups.



Board staff overseeing well testing

Programs

MANAGEMENT INFORMATION SYSTEMS

The ability of the state to provide dependable, high quality water for multiple purposes, including economic development, is highly contingent upon having the technological means to do so. A critical management issue faced by the Water Resources Board is how to improve the availability and usefulness of water-related information, regardless of whether it is generated by government or other contributing sectors.

The Board's Management Information Systems (MIS) program identifies five major goals: 1) Establish a regular program for network administration and the internal computing environment; 2) Regularly maintain and periodically upgrade the web page; 3) Conduct a comprehensive, enterprise-wide analysis in terms of business process re-engineering (customer focus); 4) Design/implement intelligent, decision support systems; 5) Integrate external information systems. Through careful planning and resourcefulness, the Board managed to accomplish many of its goals. Six unpaid interns assisted staff in carrying out program objectives, from providing technical support to research and Geographic Information Systems (GIS) mapping.



Staff and engineering intern discuss water modeling project

Early this year, 80% of the agency's computer hardware and all of the software were upgraded to state standards, vastly improving system administration. In the spring, the Board upgraded the telecommunications system with a direct connection to the state's Wide Area Network. Several other steps to streamline business processes and ease computing were undertaken, including roll out of the state's new financial accounting system and electronic filing of all agency regulations.

During the summer, a student intern canvassed the state retrieving digital images of public water facilities. New photos, maps and hyperlinks to supplier web pages were added, greatly enhancing the site. A major effort is currently underway to provide for electronic submission of Water Supply Systems Management Plans (WSSMPs). This will enable digital data transfer into the Board's computer systems and onto the web page. The data will reside in both textual and geographic databases. Both suppliers and their consultants have been extremely cooperative toward this end. However, the terrorist events of September 11th resulted in a reevaluation of what information should be made available on public internet sites. Intensive research and discussion with webmasters, GIS personnel and experts regarding applicable policies and rules regarding access to sensitive water data is now being conducted. An intern is currently researching physical and cyber threats to public water supplies and critical infrastructure protection.

Design work is progressing on a joint effort with the US Geological

Survey to create a database to capture information from Water Supply Systems Management Plans. This database is separate from NEWUDS (New England Water Use Data System). Eventually, data within databases can be joined to enable decision support, but this is a few years away. New progress concerning integration of external information systems has been made. Both the RI Dept. of Environmental Management and the RI Dept. of Transportation (DOT) have pledged support for GIS mapping of water supplier-owned lands. A GIS specialist was brought on board to update certain layers in the RI GIS database including district boundaries, water lines in roads and pumping points for major public water suppliers. Nearly all of the district boundaries have been delineated based on interpretation of hard copy maps, electronic data and legal descriptions of service areas. In some instances, interconnection points, water storage facilities and wells were pinpointed. Once finalized, these maps will be posted on the Board's web page.

An information technology survey of all water suppliers was conducted during the first quarter to enable better overall planning and systems integration with the Board. Board staff acted as co-investigator with a graduate engineering intern from the University of Rhode Island Civil and Environmental Engineering Department. The objective was to evaluate models used for hydraulic and hydrologic studies, examine the use of GIS to support modeling, and determining the degree of information technology currently used by major public water suppliers in Rhode Island. The intern compiled statistics regarding the prevalence of automated billing, meter-reading and drawing software, GIS, water models, remote sensing, web pages and Supervisory Control and Data Acquisition Systems.

The Board conducted a workshop to demonstrate water distribution models that can be integrated with GIS software. Board staff is now working with the RI Dept. of Administration, Division of Purchasing to facilitate bulk-purchase of modeling software, including training and maintenance. Modeling software can perform water quality analysis, tracer analysis and a host of other functions that can assist suppliers in water management and/or alert them to system anomalies that could disrupt water quality or supply.

In May of 2001, the Board collaborated with the US Environmental Protection Agency (EPA), the University of RI and ESRI, a GIS software manufacturer, to co-author a Drought Alert Network (DAN) grant. The application would enable information transfer from real-time stream gauges and groundwater well monitoring stations to a central database and communications system. A drought alert would consist of a menu of voluntary conservation measures imposed at various stages of drought. The primary objective would be to implement proactive and nonregulatory measures to multiple constituencies that reinforce conservation and help avert water supply crises. The DAN was the only proposal submitted for the state of Rhode Island and featured a state-of-the-art Internet map server application. Unfortunately, EPA's environmental monitoring program was discontinued before the grant could be funded.

Additional grant research was conducted by a student intern focusing on water and environmental programs as well as technology. The research was intended to identify possible funding opportunities for the Board, partnering agencies, local public interest groups and municipalities. Over forty applicable grants were identified. The Board continues to vigorously pursue alternative means of funding information technology in response to consumer demand for water-related data.

EDUCATION AND OUTREACH

It is becoming increasingly clear that more work needs to be done to educate the public regarding the value of water, the availability of supply in relationship to demand, the cost to produce water and maintain reliable infrastructure, the effect of water use on the environment, and the need to conserve the resource, especially during dry periods.

Working in conjunction with the RI Water Works Association (RIWWA), the agency has promoted education and outreach activities during RI Water Week. Along with RIWWA, staff participates in the State Science Fair each spring judging water supply-related science projects for high school and junior high school students. This year, Board staff worked with an interdisciplinary committee to produce a series of radio spots to promote water conservation. In the fall, staff prepared an environmental education grant to the US Environmental Protection Agency to expand the radio campaign in 2002.

Board staff handled a steady volume of inquiries generated from the web page. Typical questions asked concern water rates, average consumption, requests for water use figures in different geographical areas, drinking water quality, financial assistance for well installation or extension of public water infrastructure, groundwater availability, stream flow, conservation and flooding. This year, the Board also handled inquiries regarding the security of public water supplies and water data.

The Board provides outreach and assistance to many citizens groups, commissions and quasi-public boards. This year, staff invested a significant amount of resources in the RI Rivers Council both from a reorganization standpoint and liaison with various watershed and land planning associations including the Wood Pawcatuck Watershed Assn., the Kickemuit River Council, the Pawtuxet River Authority and Grow Smart Rhode Island. On the state level, staff assumed active roles on the RI Watershed Approach Coordinating Council, the Governor's Growth



Water model demonstration for suppliers

Planning Council, the State Planning Council Technical Committee, RI Geographic Information Systems Executive Committee, Information Resources Management Board and the Management Information Systems Working Group.

The Board's General Manager hosted a bus tour through the Blackstone River watershed and a helicopter tour of the state's water resources for In addition, staff regularly consults with water suppliers on topics as diverse as backflow prevention, training regarding counter-terrorism and design considerations for automating water treatment operations (SCADA).



Area school children learn about habitat restoration in the Big River Management Area



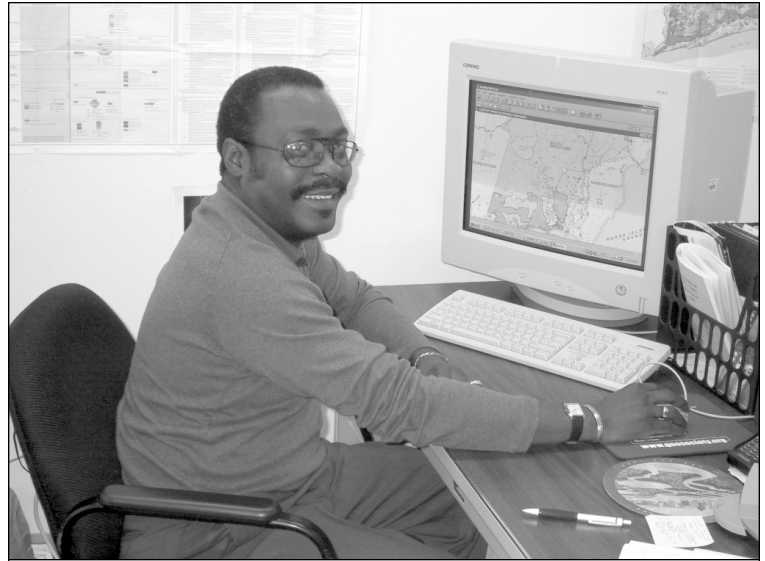
Watershed protection signage

Financial Reports

Rhode Island Water Resources Board

Detailed Listing of Expenditures as of June 30, 1997, 1998, 1999, 2000 and 2001

Account	BOC	FY 1997 Actual	FY 1998 Actual	FY 1999 Actual	FY 2000 Actual	FY 2001 Actual
2835-10000						
Classified Permanent	210	210,472	265,873	296,916	404,911	395,230
Classified Permanent Overtime	215	1,287	3,427	229	347	5,000
Unclassified Permanent	230	72,810	75,933	81,330	46,766	88,895
Employees Retirement	280	27,160	36,185	36,689	39,194	38,554
FICA	281	21,209	25,789	28,288	33,860	36,591
WC Self Ins. Employer Assess.	283	780			876	18,772
Emp. Group Life	284	-1				
Employee Cost Retiree Health	294	1,776	2,490	2,584	2,782	4,808
Medical	295	26,251	24,467	26,073	41,705	48,755
Dental Care	297	2,518	2,590	2,872	4,155	4,178
Vision Care	298	11	352	382	550	550
Salaries and Benefits		364,274	437,106	475,361	575,146	641,333
Architect/Engineering Serv	262	215,404	301,080	418,827	90,250	40,550
Bldg & Grounds Maint.	264	3,900	6,985	3,900	5,511	7,200
Security Services	265	4,567	1,016	4,192	3,303	
Management/Audit	267		3,385		12,596	20,739
Special Clerical	268	346	77	314		
All Other Special Serv	269	2,848	120	10,033		
Contractual Services		227,065	312,663	437,266	111,660	68,489
Personnel Services		591,339	749,769	912,628	686,805	709,822
Postage	321	967	1,281	1,489	1,364	1,538
Telephone	322	707	2,071	1,796	504	707
Supplies	323	3,245	4,159	5,232	4,950	7,123
Dues And Sub.	324	1,934	1,721	2,257	2,284	2,139
Insurance	326	83,514	75,275	73,218	77,336	81,939
Centrex Telephone	327	2,992	4,714	5,610	6,271	6,716
Printing	331	966	3,237	3,049	3,913	2,009
Advertising	332	1,959	405	781	1,285	982
Mileage In	341	7,807	6,511	6,271	5,856	6,067
Out of State Travel	342	825	1,215	753	702	2,046
Other Travel	343	536		10	61	495
Repair - Buildings and Structure	361	18,885	39,770	329	462	769
Repair highways	362	10,000	10,250	10,000	10,000	10,000
Other Repairs	363	6,048	1,951	2,582	1,529	2,926
Replace Office Equipment	378	2,552	6,269	2,138	4,107	
Rental Property	381	14,609	41,528	49,368	56,399	58,894
Rental Equip	382	5,506	4,839	3,360	2,172	2,172
Fuel Oil	402	922	878	444	955	1,074
Electricity	409		381	5,233	966	
Highway & Landscaping Exp.	436	263	17	663		356
Central Services	438		300	1,117	2,946	3,816
Education	441		1,155	2,985	1,445	1,830
Computer supplies	442	128	1,036	1,884	4,336	2,738
Computer Software	445			1,270	2,030	892
Other	455	1,289	17,250	2,798	1,454	1,638
Other Equipment	659		20,099	791		745
Computer Equipment	660			1,853	6,196	5,949
Total Operating Expenses		165,653	246,312	187,279	199,521	205,560
Education Grant	582	71,857	50,472	27,358	38,871	40,939
Grants	589	3,999	3,953	3,953	5,157	5,276
Supple Pension	477	612	612	612	612	612
Grants and Benefits		76,468	55,037	31,923	44,640	46,827
Improvements		49,491	13,900			
* Interest on Bonds	791	1,367,315	1,353,009	1,337,625		
* Redemption of Bonds	792	920,996	1,151,437	1,129,341		
Debt Service		2,337,802	2,518,346	2,466,966	0	0
Total 2835-10000		3,171,263	3,569,464	3,598,796	930,967	962,209
2835-90100						
Capital Development Funds						
BRMA Maintenance				54,373	225,264	89,958
BRMA Water Survey					67,738	112,261
Water Allocation Program					270,245	464,867
Ground Water Protection						83,334
Total Capital Development				54,373	563,247	750,420
Agency Total		3,171,263	3,569,464	3,653,169	1,494,214	1,712,629



GIS specialist mapping water districts

Note * Transferred to Dept. of Administration

Financial Reports

Rhode Island Water Resources Board Corporate

Balance - June 30, 2001, 2000, and 1999

	FY 2001	FY 2000	FY 1999
Assets			
Cash and cash equivalents	\$ 3,183,207	\$3,907,073	\$3,115,824
Cash - allocated to Phase II	155,893	1,665,996	5,072,104
Investments	4,160,783	2,614,498	2,626,156
Accounts Receivable	333,029	376,137	388,948
Lease Receivable	7,815,000	8,500,000	9,150,000
Accrued Interest Receivable	40,528	27,276	43,114
Bond issuance (net of amortization)	473,352	515,013	556,675
Total Assets	<u>16,161,792</u>	<u>17,605,993</u>	<u>20,952,821</u>
Liabilities and Fund Equity			
<u>Liabilities:</u>			
Accounts payable	11,007	8,677	50,148
Deferred revenue	965,780	959,531	1,050,510
Accrued interest payable	280,587	294,508	314,120
Bonds payable	16,580,000	17,760,000	18,885,000
Excess cost of refunding	-689,216	-765,796	-842,375
Refunding premium	48,794	54,216	59,638
Total Liabilities	<u>17,196,952</u>	<u>18,311,136</u>	<u>19,517,041</u>
<u>Fund Equity:</u>			
Retained earnings:			
Reserved	-1,707,118	-1,458,280	607,659
Unreserved	671,958	753,137	828,121
Total fund equity	<u>-1,035,160</u>	<u>-705,143</u>	<u>1,435,780</u>
Total Liabilities and Fund Equity	<u>\$16,161,792</u>	<u>\$17,605,993</u>	<u>\$20,952,821</u>

Rhode Island Water Resources Board Corporate

Statement of Revenues, Expenses and Changes in Retained Earnings
For the Fiscal Years Ended June 30, 2001, 2000, and 1999

	FY 2001	FY 2000	FY 1999
Operating revenues			
Rental income	321,291	\$366,595	\$359,876
Water quality protection charge	1,393,583	1,540,620	1,570,768
Total operating revenues	<u>1,714,874</u>	<u>1,907,215</u>	<u>1,930,644</u>
Operating expenses			
Administrative expenses	28,089	31,308	16,892
Amortization expense	112,819	112,819	112,819
Total operating expenses	<u>140,908</u>	<u>144,127</u>	<u>129,711</u>
Operating Income	<u>1,573,966</u>	<u>1,763,088</u>	<u>1,800,933</u>
Non-operating revenues (expenses)			
Watershed protection grants	-1,510,104	-3,406,108	-1,521,697
Interest income	444,519	494,550	548,695
Capital gains	76,040	-30,496	-21,504
Interest expense	-914,438	-961,957	-1,015,783
Total non-operating revenues (expenses)	<u>-1,903,983</u>	<u>-3,904,011</u>	<u>-2,010,289</u>
Net Income (loss)	-330,017	-2,140,923	-209,356
Retained earnings (deficit) July 1	-705,143	1,435,780	0
Adjustments to prior year			
Retained earnings - June 30, 2001, 2000 & 1999	<u>-\$1,035,160</u>	<u>-\$705,143</u>	<u>-\$209,356</u>

Rhode Island Water Resources Board Corporate

Statement of Cash Flows
Increases (Decreases) in Cash and Cash Equivalents
For the Fiscal Years Ended June 30, 2001, 2000 and 1999

	FY 2001	FY 2000	FY 1999
Cash flows from operating activities			
Cash received for:			
Rents	\$1,012,540	\$925,616	\$1,012,415
Water quality protection	1,439,019	1,504,271	1,475,313
Cash payments for goods and services	-28,089	-23,919	-27,103
Net cash provided by operating activities	<u>2,423,470</u>	<u>2,405,968</u>	<u>2,460,625</u>
Cash flows from noncapital financing activities			
Watershed protection grants	-1,510,104	-3,406,108	-1,521,697
Net cash used for noncapital financing activities	<u>-1,510,104</u>	<u>-3,406,108</u>	<u>-1,521,697</u>
Cash flows from capital and related financing activities			
Acquisition and construction of capital assets			
Principal paid on revenue bonds	-1,180,000	-1,125,000	-1,080,000
Interest paid on revenue bonds	-928,357	-981,569	-1,030,959
Net cash used for capital and related financing activities	<u>-2,108,357</u>	<u>-2,106,569</u>	<u>-2,110,959</u>
Cash flows from investing activities			
(Purchase) sale of investment securities	-1,546,285	11,662	-3,326
Net (decrease) in fair value of investments	76,040	-30,496	-21,504
Interest on investments	431,267	510,384	543,044
Net cash provided by investing activities	<u>-1,038,978</u>	<u>491,550</u>	<u>518,214</u>
Net increase in cash and cash equivalents	<u>-2,233,969</u>	<u>-2,615,159</u>	<u>-653,817</u>
Cash and cash equivalents at beginning of year	<u>5,573,069</u>	<u>8,187,928</u>	<u>8,841,745</u>
Cash and cash equivalents at end of year	<u>-\$3,339,100</u>	<u>-\$5,572,769</u>	<u>-\$8,187,928</u>

Reconciliation of operating income to net cash provided by (used for) operating activities

Operating income	\$1,573,966	\$1,763,088	\$1,800,933
Items in net income not affecting cash and cash equivalents:			
Amortization expense	112,819	112,819	112,819
Increase (decrease) in cash and cash equivalents from changes in assets and liabilities:			
Accounts receivable	43,106	12,811	-146,730
Lease receivable	685,000	650,000	625,000
Accounts payable	2,330	-41,471	41,064
Deferred revenue	6,249	-90,979	27,539
Net cash provided by operating activities	<u>\$2,423,470</u>	<u>\$2,406,268</u>	<u>\$2,460,625</u>

BOARD MEMBERS

The Rhode Island Water Resources Board consists of thirteen members; five are public members appointed by the Governor, two of who must be affiliated with a municipal water supply system. Public members serve for three years. There are six ex-officio members including the Director of the RI Dept. of Administration, the Director of the RI Dept. of Environmental Management, the Director of the RI Dept. of Health, the Director of the RI Economic Development Corporation, the Chair of the Joint Legislative Committee on Water Resources and the President of the RI Agricultural Council. The remaining members include one state senator appointed by the Senate Majority Leader and one state representative appointed by the Speaker of the House. Water Resources Board members are also members of the Board Corporate.

Public members:

Daniel W. Varin, PCP - Chair

Mr. Varin is planner emeritus of the State of Rhode Island, having served for over 30 years as Associate Director of the RI Dept. of Administration and Chief of the Division of State Planning. Mr. Varin is nationally recognized for his work in drafting the Rhode Island Comprehensive Planning and Land Use Act.

Maurice Trudeau, PE - Vice Chair

Mr. Trudeau is the Superintendent of the Lincoln Water Commission. His professional associations include past president of the Rhode Island Water Works Association and past director of the New England Water Works Association.

Frank L. Nunes, CPA

Mr. Nunes is Director of Development for a Rhode Island-based accounting firm; he currently serves as the Chair of the State Planning Council's Technical Committee. Mr. Nunes served in the RI General Assembly and as Public Utilities Administrator for the RI Public Utilities Commission.

William Penn

Mr. Penn is a Financial Advisor specializing in brownfields redevelopment. Mr. Penn is President & Chief Executive Officer of the Clean Land Fund, New Shoreham, RI.

Richard Rafanovic, PE

Mr. Rafanovic is a consultant to government and the private sector providing management and engineering services. Mr. Rafanovic served as General Manager and Chief Engineer of the Providence Water Supply Board. He is a member of numerous professional associations.

Ex Officio Members:

Director of RI Dept. of Administration - Robert Carl, Ph.D.

Dr. Carl's designee is Robert Griffith, Ph.D., Chief, Office of Strategic Planning, Monitoring and Evaluation.

Director of RI Dept. of Health - Patricia A. Nolan, MD, MPH

Dr. Nolan's designee is June Swallow, PE, Chief, Office of Drinking Water Quality.

Director of RI Dept. of Environmental Management - Jan Reitsma, Esq.

Mr. Reitsma's designee is Alicia Good, PE, Assistant Director, Office of Water Resources.

Executive Director of the RI Economic Development Corporation - Thomas Schumpert

Mr. Schumpert's designee is William Parsons, Vice President of Business Development.

Chair of the Joint Committee on Water Resources - Representative Stephen Anderson

Rep. Anderson (Coventry) is a teacher in the Exeter-West Greenwich School District and a member of the House Labor Committee. Rep. Anderson's designee is Francis Perry, PE, Special Assistant Clerk, Joint Committee on Water Resources.

Rhode Island Agricultural Council

The Council's designee is Stephen Donohue, General Manager of Tuckahoe Turf Farms, Inc. Mr. Donohue serves on the Southern RI Conservation District Committee, the DEM Agricultural Advisory Committee and the Wood-Pawcatuck Watershed Association.

Other Members:

Senator Patrick McDonald, Esq.

Sen. McDonald (Narragansett-South Kingstown) is a self-employed attorney. Sen. McDonald serves on the Senate Judiciary and Special Legislation Committees.

Representative William Murphy, Esq.

Rep. Murphy (Coventry-West Warwick) is a self-employed attorney. Rep. Murphy serves as Vice Chair of the House Judiciary Committee.

GENERAL INFORMATION

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Elaine A. Maguire, Real Estate Appraiser
William D. Rivero, Programming Services Officer
Kathleen M. Crawley, Supervising Planner
Connie L. McGreavy, Programming Services Officer

Board Legal Counsel

Rebecca Partington, Esq., Assistant Attorney General

Board Corporate Legal Counsel

Armando O. Monaco, II, Esq.

Bond Counsel

Normand G. Benoit, Esq., Partridge, Snow & Hahn, Karen Grande, Esq. Tillinghast, Licht, Perkins, Smith & Cohen

Financial Advisor

First Southwest Company

Trustee

Citizens Bank

Auditor

Casale, Caliri & Jaroma, LLP.