

Water Resources Board is the behind-the-scenes manager to assure that the water needs of people and businesses in Rhode Island are met.

- **Plan for future uses of supply and resource**
- **Facilitate capacity of suppliers**
- **Chair forum for agencies and public to prevent and solve water-related problems**

History In 1964 in response to a record-breaking drought the Water Resources Coordinating Board was established to purchase land for water supply development.

The General Assembly created the Water Resources Board in 1967 to redress the intra-municipal allocation of water upon the pipeline construction in 1966 that served Providence Water Supply (Scituate Reservoir) water to East Providence but not the other communities of the East Bay. The functions laid out in RIGL were planning, development, and regulation of supply that continue to be the parameters of the agency today.

The Water Resources Board Corporate was established in 1970 as the quasi-public entity responsible for developing water supplies, administering the water quality protection program and providing alternative financing for water projects. WRB-Corporate was dissolved when Bonds that funded the final phase of the water quality protection program were retired.

Functions

1. **Planning:** **Water Resources Board** has since its inception has employed professional planners to plan for water supply to meet water use for the state. Long-term director Dan Varin was a professional planner, and current interim director has a background in planning. The intersection of population projection, economic forecasting, climate, geology, and infrastructure create the picture for assessing resources, planning to meet needs, ;and assuring governance to implement consequent programs.
2. **Coordination**
 - a. **Other agencies** (state agencies and their federal counterparts):
 - i. **Health Department** obviously has legal and ethical responsibility to assure the safety of drinking water for consumption and other uses principally through Safe Drinking Water Act.
 - ii. **Department of Environmental Management** looks not only to the balance between naturally occurring water and withdrawals, but in RI, the Division of Agriculture and its needs for water are located within RIDEM. RI DEM manages the land use of the Big River Management Area.
 - iii. **RI Commerce Corporation** (department of economic development) speaks for the need for water in manufacturing, service, and other businesses in the state and as prospects.
 - iv. **Infrastructure Bank:** has accounts for surcharges to water customers (so-called penny money).
 - v. On an as-needed basis, WRB interacts with **NOAA/ National Weather Service, U. S. Geological Survey, U. S. Department of Agriculture/ NRCS, RI Emergency Management.**

The Board has a long history of cooperating with U. S. G.S. and others to understand the State's hydrology and to create the scientific foundation for water management.

- b. Suppliers
 - i. 29 major (28 municipal and/public water districts and one private): These entities that supply retail water across the state have representation on the WRB, and are required to submit on a 5-year cycle to WRB Water Supply Systems Management Plans and to report annually data to track quantity and efficiency of supply.
 - ii. Small systems such as nursing homes, mobile home parks, and small residential communities may have opportunities for improving safety that are un-affordable with their rate base and that could be facilitated with technical and financial support from WRB. There are approximately 450 small systems.
3. Development of Water Resources
 - a. The Board has identified or purchased test wells in southern Rhode Island to anticipate the population shift to and vulnerabilities of that part of the state.
 - b. The Board oversaw the development of a system for Richmond when private wells were contaminated.
 - c. The Board is currently responding to concerns from community systems in Charlestown concerned with potential loss of supply due to salt intrusion and septic contamination, as well as long-term implications of climate change.
4. Regulation
 - a. To assure timely feedback to residential customers, the Board has required that telemetric meter reading be installed for customers of major suppliers.
 - b. Well-head protection programs attempt to regulate land use in the area from which public wells draw water. A water quality protection component is a required part of the Water Supply System Management Plan.
 - c. Responsibilities over out of state water sales, expansions/pipe sizing and extension of service
5. Parent agency to RI Rivers Council.

Operations

1. Staff: At one time, WRB employed 9 persons for various functions of the agency, and in addition hired outside legal counsel and consultants. . Currently there are 2 funded staff positions: the Staff Director serving as Interim General Manager and a Supervising Civil Engineer. Assistance is provided by the Division of Planning and DOA for accounting, legal, and land management projects.
2. Board consists of 11 public members appointed by Governor + 4 ex-officio government representatives
3. Implementation of required planning updates
 - a. Develop State Guide plan elements, such as, Water 2030
 - b. Review Water Supply System Management Plans
 - c. Assist in state emergency and climate change plans.
4. Facilitation

- a. Funded with water facilities assistance grants for installation or improvements to infrastructure--Johnston system, Tiverton, Lincoln, Cranston, Pawtucket, etc.
 - b. WRB has facilitated through technical and other support the merger of small systems Tiverton and North Tiverton; East Smithfield and Providence.
 - c. It has attempted to ease Bristol County Water Authority's project to pipe water from Pawtucket Water Supply to back-up to BCWA supply from Providence.
5. Watershed protection
- a. So-called "penny" money paid by rate payers: current allocation uncertain
 - b. 2,700 acres preserved for water quality protection in three phases managed by the Water Resources Board Corporate.
6. Assessment and development of sources
- a. In the past, WRB has hired engineering firms to project and propose for supply.
 - b. Reviews economic forecasts (manufacturing, agriculture, institutional water use)
 - c. South County wells sites have been assessed and talks are underway for proposals
 - d. Big River test wells were assessed for production
 - e. Evaluated supplemental water status statewide
 - f. Investigated statewide basin/water use and availability
7. Inter-connections
- a. The A. D. Little (consultant hired by WRB) Report of the 1980s identified the need for "redundancy," back-up supply for each major water supplier.
 - b. Engaged statewide interconnection study and implementation. 24 interconnections completed to increase water security.
 - c. The Board managed the construction of a second East Bay pipeline to supply Bristol County Water Authority with back-up water from Providence Water Supply (Scituate Reservoir), which has since become its permanent supply.
 - d. Connections require infrastructure changes and assurance of compatible water chemistry and arrangements for financing.
8. Responding to water needs
- a. Water Resources Board monitors precipitation, soil moisture, and stream flow (36 U. S. G. S. in-stream gauges across state) and convenes the Drought Steering Committee when conditions warrant. Board partially funds gauges and test wells.
 - b. Deficiencies in the perceived, projected, or real-time consumption of water are attended to with systems changes and educational campaigns for efficient use.
 - c. Impending needs: i. Demographic shifts ii Deterioration of old community systems iii. Technical and capacity issues iv. Climate change v. Continued protection of sources.

Optimal Agency for Water Resources and Supply

1. **Authority to comprehensively manage adequacy of quality and quantity of water and to implement the State Guide Plans on Water** across the state.
 - a. Resolve fairly financial and boundary issues in getting water to where it is needed
 - b. Assure WRB authority in municipal zoning and planning boards decisions
 - c. Enforcement mechanism when recalcitrance occurs.
 - d. Arbitration authority if all else fails

- e. Assure proficient hydrological science base for decisions; professional engineering assessments; current data for planning projections;
 - f. Continue education for water use efficiency.
- 2. Adequate staffing**
 - a. Planning
 - b. Legal
 - c. Administrative
 - d. Education
 - e. Field liaison
 - 3. Review proposed legislation regarding water and propose legislation where necessary.**
 - 4. Create Model Systems** for Governance of Water Systems to resolve mergers or creation of new systems where need is demonstrated.
 - 5. Create a web base of accessible data** on water supply systems, USGS stream flow data, ground water maps, and water use.
 - 6. Protect existing and assess needs for drinking-waters watershed protection.**
 - a. Resolution of accounting and use of watershed protection fees.
 - b. Assurance of Scituate Reservoir watershed protection
 - c. Assured continuation of funding for 14 U.S.G.S. in-stream gages, currently supported by City of Providence (PWSB)
 - 7. Planning for climate change impacts to water**
 - a. Sea level rise
 - b. Quick run-off// lack of infiltration to groundwater
 - c. Hotter drier summers
 - 8. Integrate RI Rivers Council for data and advocacy in formal agreements into WRB structure**

Respectfully submitted 3/6/18, Eugenia Marks, M. A. Brown University, member WRB