

Building Strong Collaborative Relationships for a Sustainable Water Resources Future:

STATE OF NEW JERSEY

SUMMARY OF STATE WATER PLANNING

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The findings contained in this report are based on the information collected from the literature search and interviews for this initiative and should not be construed as an official Department of the Army position, policy or decision unless so designated by other official documentation.

STATE OF NEW JERSEY¹

1. STATE/REGIONAL WATER PLANNING STATUS

New Jersey maintains separate plans for managing water supply and water quality. The Department of Environmental Protection (DEP) develops the state's Statewide Water Supply Plan (SWSP) and various regional water quality plans.

Under amendments to the Water Supply Management Act (New Jersey Permanent Statutes (N.J.S.A. §58:1A-1 et seq.), originally adopted in 1981, DEP is required to prepare and adopt a SWSP to be revised and updated at least once every five years (DWS, 2008). § 58:1A-13.3 states, "The department shall prepare and adopt appropriate revisions and updates to the current New Jersey Statewide Water Supply Plan no later than December 31, 2006." Despite this deadline, the current Statewide Water Supply Plan is the 1996 edition. A revised and updated SWSP has been drafted is currently undergoing upper management review. The updated plan is tentatively scheduled for public review/comment through the DEP website sometime in January 2009 (Mattle, 2008).

According to DEP's 2007 Priorities and Action Plan, the updated SWSP will:

- *Update water supply availability for each of the 150 water supply planning areas utilizing the most up to date USGS and NJGS models to identify areas in current and projected surplus/deficit for the entire State.*
- *Be used as the basis to ensure consistency of water supply and water quality management planning by proposing comprehensive amendments to the Water Quality Management Planning, NJPDES [New Jersey Point Discharge Elimination System], and Water Allocation Rules.*
- *Have a significant impact on local and regional planning efforts, and it can add an important contribution to support Governor Corzine's economic growth goals.*
- *Be an opportunity to initiate a public education campaign to promote water conservation.*
- *Be used to develop state guidance on the development of safe yield analyses and ensure that all safe yields have been reviewed and updated as permits are renewed or safe yields requested.*
- *Be used by DEP as one of its pillars in integrated water supply planning with other state-planning objectives.*
- *Be an ideal opportunity for the DEP to undertake actions to promote reuse of treated wastewater to maintain potable supplies for human use and ecological resource protection.*

Once the updated SWSP is adopted, "DEP will assess all major New Jersey water supply infrastructure interconnections and provide recommendations to enhance access to the State's supply through additional interconnections (DEP, 2007)."

For water quality, New Jersey engages in regional planning for each of its 20 watershed management areas (WMA) (Figure 1). The intent of the regional planning initiative was expressed as follows (DEP-NPS Plan, 2001):

¹ Representatives from the State of New Jersey did not participate in an interview.

As NJDEP is developing Watershed Management Plans with watershed partners for all 20 Watershed Management Areas in the State, strategies equivalent to Watershed Restoration Action Strategies for all impaired waters of the State will be developed and implemented. The development of the Watershed Management Area Plan for each Watershed Management Area is anticipated to be a 4 year process to complete the first round in what is expected to be an ongoing process with a living document (pg. 4).

Each Watershed Management Plan (WMP), if developed, is regional/areawide in scope and covers only a portion of the WMA. Some WMAs have several WMPs while some have none (e.g., Mullica and Cape May).

DEP also develops numerous areawide and county water quality management plans (WQMPs), which are separate planning documents from WMPs. In 2008, DEP readopted the Water Quality Management Planning rules, New Jersey Administrative Code (N.J.A.C.) § 7:15, with amendments, repeals, and new rules (DWM, 2008). N.J.A.C. §7:15-2.2 describes the relationship between the areawide and county WQMPs, and the Statewide WQMP. The Statewide WQMP is a series of documents including the areawide WQMPs and their numerous amendments. It also includes by reference such things as DEP’s rules and standards (Hitchner, 2008). Both WMPs and WQMPs are not available online for public review.

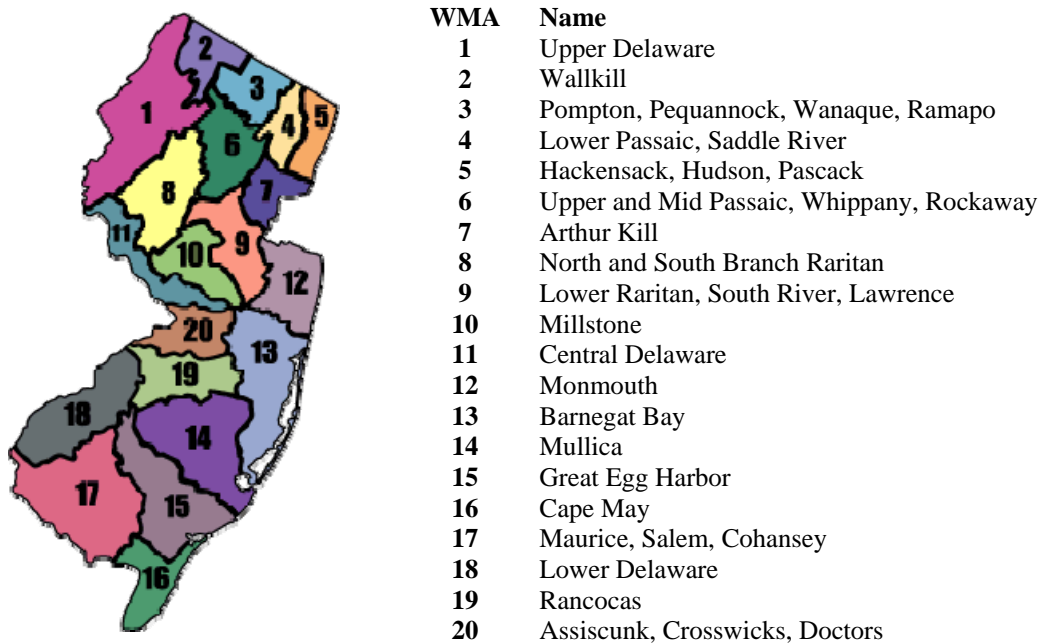


Figure 1. State Watershed Management Areas (DEP, 2008(a))

2. RESPONSIBLE STATE AGENCIES/REGIONAL ENTITIES

DEP is the state's lead water resources management planning agency. Within DEP's Land Use Management Section are the Division of Watershed Management (DWM) and the Division of Water Supply (DWS). The Statewide Issues Office (SIO) within DWS is coordinating the development of the New Jersey State Water Supply Plan (SWSP) update (DEP, 2008(b)). SIO also works closely with DWM and the Division of Water Quality (DWQ) on water resource issues pertaining to water quality planning and management.

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3. WATER MANAGEMENT VISION AND GOALS

The 1996 SWSP does not contain a vision statement or explicitly stated goals.

DEP's 2007 Policy Priorities and Action Plan summarize their strategic plan and describe the reasoning behind their departmental policies and planned actions. DEP's vision is, "As national leaders in the stewardship of natural resources, we preserve the ecological integrity of the Garden State and maintain and transform places into healthy, sustainable communities. Our dynamic workforce provides excellence in public service through innovation, education, community involvement and sound science (DEP, 2007)."

DEP's Priority and Actions Plan is organized under eight policy categories. Each category contains specific actions DEP plans to take. Policies and actions of the plan are (areas left blank do not involve water resources): [Numbered items are policies and bullets are the key action items they plan to take]

1. **Stewardship** – *Enhance stewardship of and access to existing lands, natural resources and historic structures, and expand the acquisition of open space.*
 - *Serve as a steward of the public's trust by working to ensure public access to natural resources.*
 - *Reexamine existing resources of the natural and historic resource programs and consider new ways to use resources more effectively to improve stewardship, restoration and enhancement of and access to natural and historic resources.*
 - *Undertake regulatory, legislative and programmatic initiatives that are expected to be most effective in delivering tangible results for protection of the State's precious natural resources and set priorities for protection of the most critical natural and historic resources on state-owned lands or in state possession.*

2. **Air Pollution**

3. **Clean and Plentiful Water** – *Ensure an adequate supply of clean water to support our state's needs. Aggressively minimize the potential for drought in New Jersey by ensuring that water is conserved, re-used and managed wisely. Protect and enhance the quality of our rivers, streams, lakes and coastal waters so they are fishable, swimmable and support healthy ecosystems.*
 - *Complete the statewide Water Supply Master Plan and implement regulatory, education and compliance strategies to integrate its provisions into key DEP decision-making and programs as well as into local government and intergovernmental planning.*
 - *Ensure the protection of public health by reviewing, updating and expanding existing safe drinking water requirements, as necessary.*
 - *Manage flooding to reduce property damage and increase surface water buffers to enhance function and value.*
 - *Set aggressive water quality enhancement goals.*

- *Set scientifically sound standards for water quality and work with local governments to integrate water quality management planning provisions into local and regional plan.*
 - *Develop and implement measures to protect and enhance the quality of surface and ground water.*
4. **Sustainable Growth** – *Maximize use of department resources to encourage sustainable growth and livable communities by incorporating consistent criteria for the protection of natural resources and development of smart growth and green design principles into DEP rulemaking, priority setting and planning efforts, other state smart and economic growth priorities, and in regional and local planning efforts.*
- *Incorporate sustainable growth and environmental protection criteria into state, regional and local planning.*
 - *Ensuring consistency with state and local development and redevelopment objectives, apply DEP’s consistent set of natural-resource and environmental criteria as the basis for targeting development and redevelopment projects for department-wide prioritization and coordinated review and aggressively advance integration of smart-growth and environmental-justice principles, green building design technologies, and energy efficiency and renewable energy into those projects.*
 - *Expand DEP efforts to promote incorporation of sustainable or green project design into local planning, individual projects, state investments and state policy.*
5. **Public Health** – *Ensure that existing and newly emerging environmental threats to public health and safety are evaluated and addressed. Educate the public about its role in environmental protection.*
- *Enhance efforts to expand and improve the public’s access to data about environmental threats and apply those data in innovative ways to set agency priorities and identify areas of environmental health concern.*
 - *Undertake legislative, regulatory and management initiatives to more effectively ensure the protectiveness of site remediation remedy selection, use existing environmental and public health data to apply site remediation resources to sites of greatest public health concern, and to increase the transparency of decision making under the site remediation program.*
 - *Ensure that DEP’s health-based standards reflect the most recent science and provide adequate safety for public health and the environment and continue to proactively identify new sources of environmental health concern in New Jersey.*
 - *Coordinate efforts with the Office of Homeland Security and Preparedness and other state agencies to fulfill DEP’s role as liaison to the chemical, petroleum, nuclear, water, wastewater, pharmaceutical and biotechnology and dams sectors of the Infrastructure Advisory Committee.*
 - *Additional priorities are:*
 - *DEP will be completing site inspections and reviews for all 157 sites covered by the Best Practices Standards at TCPA/DPCC Chemical Sector Facilities, as well as Phase II site visits for Tier 1, 2 and 3 facilities.*
 - *It will develop worker training curricula for delivery within the pharmaceutical and biotechnology and dams sectors.*

- *Complete contingency plans for avian influenza response in conjunction with the Department of Agriculture. Focus areas include decontamination, transportation and disposal technology assessment.*
 - *Complete contingency plans for Pandemic Influenza response in cooperation with the Department of Health and Senior Services.*
 - *Conform DEP's 'Be Ready Guide' to the Federal Template for Continuity of Government plans and schedule DEP tabletop and functional exercises.*
 - *Expand the 'Biowatch' monitoring program for 365-day-per-year collection of filter samples at all north and south Jersey sites under Department of Homeland Security-sponsored program.*
 - *Complete logistical arrangements to link DEP's NJEMS database with the Office of Homeland Security and Preparedness CATS database and Law and Public Safety's EPINET database.*
6. **Enhancement and Restoration** – *Dedicate coordinated resources on a targeted set of geographic initiatives to produce tangible improvements in environmental quality and public health.*
- *Implement urban river initiatives that have components of public access, urban habitat and forest stewardship, restoration, acquisition and partnerships with conservation groups and local governments.*
 - *Undertake urban environmental quality-of-life initiatives in conjunction with local governments, local activist and community groups that establish measurable goals for two and three year achievements.*
 - *In collaboration with our partners in statutorily established councils, direct DEP resources to ensure a single point of contact with DEP to coordinate policy development related to the jurisdiction of these organizations and be responsive to efforts where local governments have invested in development of regional planning.*
 - *Undertake initiatives to better understand and protect our ocean resources.*
7. **Efficient Service**
8. **Positive Work Environment**

4. SCOPE OF WATER RESOURCES PLANNING AND MANAGEMENT

The state approaches water supply planning and management by first identifying areas of the state where water supply deficits have or will occur. In the 1996 SWSP, 20 and 50 year population and water demand projections were made (Table 1). Using those projections, DEP conducted a gap analysis (Table 2) to determine areas with a projected deficit. This analysis revealed eight planning areas with projected deficits between 2010 and 2040. For each planning area in deficit (and adjacent areas), the SWSP devotes a separate section describing mitigation initiatives; all under Section "Recommended Initiatives for Planning Areas Anticipated to be in Deficit During the Planning Period" of the SWSP. Mitigation initiatives varied widely amongst planning areas, but included wastewater reuse, capital improvement projects, increased monitoring, and feasibility and investigative studies (e.g., conjunctive use, aquifer storage and recovery, and quantification of shallow aquifer storage).

As mentioned, New Jersey has separate plans for water supply and water quality. In the 1996 SWSP, only environmental/instream needs are considered. Water quality is incorporated into the planning effort because of its effects on water supply. WMPs are supposed to be more comprehensive, considering “a wide variety of water quality issues regarding their impact on water supply availability, quality and treatability (DEP, 1996).” WMPs are part of DEP’s “integrated environmental management approach to all water resource issues within targeted watersheds (DEP, 1996).” It corresponds to the USEPA’s Watershed Approach, which focuses on restoring water quality, water supply, ecosystems, and other water-related uses. [***Note: Since WMPs are unavailable online, it is difficult to determine whether or not WMPs are truly comprehensive and encompass broader water resource functions.***]

5. PARTNERSHIPS, STAKEHOLDER, AND PUBLIC INVOLVEMENT

The public is involved in the SWSP planning process through the Water Supply Advisory Council (WSAC) and the Public Advisory Committee (PAC). WSAC comprise seven members nominated by the Governor and appointed by the State Senate. The PAC is formed through appointments by the WSAC and DEP. According to the 1996 SWSP, “The PAC and the WSAC itself are broadly representative, including representatives of water users, water purveyors, environmental organizations, agriculture, industry, universities and the general public.” Based on the 1996 SWSP, it appears that members of the WSAC and PAC met regularly with DEP during the SWSP development process. This suggests that other members of the public were not involved in overall plan development.

The upcoming SWSP update will be made available to the public for comment and review in 2009, but it is unclear how the public was involved in the earlier stages of plan development, except through the WSAC and PAC.

6. PLAN IMPLEMENTATION STRATEGY

The 1996 SWSP highlights the “most significant statewide and regional water supply problems, constraints and issues in New Jersey and made both general and specific recommendations as to how these should be addressed (DEP, 1996).” Some of the recommendations (i.e., initiatives) are provided below. The SWSP’s implementation plan uses two approaches: one for statewide initiatives and another for regional initiatives. Regional initiatives pertain to specific planning areas where deficits are projected to occur are discussed below.

Statewide initiatives with the highest priorities were incorporated into the 1995 Statewide Water Supply Plan Action Program (Table 3). The Program lists major projects and initiatives, identifies a funding source, and provides an implementation schedule with the latest completion dates set for 2001.

Statewide initiatives were prioritized based on its ability to achieve the greatest progress in the following categories (DEP, 1996, pg. 152):

- *Initiatives that minimize public health risks through protection of the source quality of the water supplies serving the largest populations*
- *Strategies that result in sustainable and economical regional water supplies*
- *Efficient water conservation strategies (both demand-side and supply-side) that conserve water for the largest populations*
- *Water management initiatives that maintain ecosystems where these are related to water supply management*
- *Integrated water management efforts that conclude in multiple benefits by applying multi-disciplinary approaches (i.e., where broader watershed management efforts are initiated)*

Projects and initiatives are described in detail in earlier chapters of the SWSP. The initiatives presented in the Action Program (Table 3) are a synthesis of the various recommendations made elsewhere in the SWSP and focus primarily on water supply protection, more efficient use of existing water supplies, and water conservation. Examples include:

- *Incentives and other approaches to encourage cost-effective, nondepletive and nonconsumptive water uses for future water withdrawals should be developed by the NJDEP. Regulations and policies should be evaluated to determine if these are excessively burdensome and discourage wastewater reuse. Incentives and disincentives that could be considered may be in the form of variable allocation fees for new diversions in planning areas nearing deficit based on their depletive nature.*
- *The NJDEP proposes to partially support the development of watershed plans on an equitable basis (e.g., the portion of the total plan cost that is oriented to protection of water supply resources).*
- *The NJDEP recommends that policies be proposed in the near future to discourage depletive water uses and encourage non-potable wastewater reuse where this practice is suitable, including consideration of costs not directly related to wastewater management. Primary emphasis will need to be placed on managing depletive water uses upstream of surface water intakes and sewage treatment plants and where saltwater intrusion is a concern.*

Possible regional initiatives are acknowledged but no implementation schedule or costs are provided since the watershed ranking system used to determine priority of regional initiatives was not developed at the time of the SWSP publication. Regional initiatives include additional analysis or research in several water planning areas, and the development of watershed-scale WQMPs in the Toms/Metedeconk, Mullica/Great Egg and Upper Passaic/Lower Passaic/Hackensack watersheds.

Table 1. Population and Demand Projections (SWSP, 1996)

TABLE 4.1 Comparison of Demands Using Prefit Population Projections (Demand values are in million gallons per day-MGD)

RWRPA Number and Name	1990	2010 Prefit		2040 Prefit	
	Population	Population	Demand	Population	Demand
1 Middle Delaware River	32,460	37,125	14.2	43,493	15.2
2 Flat Brook	1,799	2,772	0.2	4,018	0.3
3 Walkill/Pequest River	123,725	178,327	28.3	246,056	35.7
4 Upper Passaic Pompton/Ramapo River	689,841	703,627	98.5	729,360	109.1
5 Lower Passaic/Rahway River	1,896,000	1,785,662	355.5	1,687,100	343.1
6 Hackensack River	981,966	987,373	162.8	996,326	170.4
7 Pohatcong River	22,265	24,994	4.0	28,069	4.5
8 Musconetcong River	48,017	58,613	6.7	73,266	8.1
9 Trenton Delaware Tributaries	25,931	32,222	3.1	40,692	3.8
10 Raritan River	769,425	880,517	141.2	1,010,807	164.2
11 South River	321,709	388,690	98.4	469,733	116.7
12 Navesink/Swimming Rivers	400,432	384,565	62.4	362,583	61.6
13 Manasquan River	90,788	103,506	15.2	115,074	18.0
14 Rancocas Creek	563,255	625,401	120.1	692,446	135.4
15 Metedeconk River	135,923	157,138	19.0	187,533	25.6
16 Toms River	204,672	282,926	48.7	368,948	62.4
17 Camden Delaware Tributaries	668,518	701,538	128.1	746,722	142.0
18 Mullica River	220,304	247,041	157.9	284,422	160.7
19 Atlantic Coastal	81,491	131,583	18.1	203,530	27.2
20 Salem River	69,163	72,437	34.2	77,464	35.4
21 Maurice River	191,097	215,219	71.8	247,840	76.8
22 Great Egg Harbor River	96,318	126,820	26.4	158,424	30.3
23 Cape May Coastal	95,089	122,101	32.6	159,306	39.0
TOTAL	7,730,188	8,250,197	1,647.3	8,933,212	1,785.6

Footnotes:
 •Prefit - Projected individual municipality population according to historic growth patterns without specific evaluation of available land to accommodate growth.
 •Demand - Total average demand per RWRPA.

Table 2. Regional Gap Analysis for New Jersey (SWSP, 1996)

(ALL VALUES ARE IN MILLION GALLONS PER DAY -MGD)

RWRPA NUMBER	RWRPA NAME	TOTAL RECHARGE	AVAILABLE GROUND WATER	SURFACE WATER YIELDS	TOTAL AVAILABLE WATER	INTERBASIN TRANSFER (OUT-IN)	NET AVAILABLE WATER	1990 PLANNING AREA DEMAND		1990 (+)SURPLUS (-)DEFICIT	2010 TOTAL DEMAND	2010 (+)SURPLUS (-)DEFICIT	2040 TOTAL DEMAND	2040 (+)SURPLUS (-)DEFICIT	1990 DEPLETIVE USE		
								SURFACE	GROUND						TOTAL	SURFACE	GROUND
1	Middle Delaware River	103.3	20.1	0.0	20.1	-1.1	19.0	0.0	13.6	13.6	6.4	14.2	4.8	15.2	3.8	0.1	0.2
2	Flat Brook	50.5	10.1	0.0	10.1	0.0	10.1	0.0	0.1	0.1	10.0	0.2	9.9	0.3	9.8	0.0	0.0
3	Walkill/Pequest River	430.7	66.1	2.4	865	2.6	91.3	5.5	18.8	223	690	28.3	63.0	35.7	56.6	0.1	1.8
4	Upper Passaic Pompton/Ramapo Rivers	471.0	84.3	406.2	500.5	-261.0	219.5	19.3	72.3	91.8	127.9	66.6	121.0	109.1	110.4	249.9	20.2
5	Lower Passaic/Rahway Rivers	235.8	47.2	8.9	561	306.8	362.9	326.1	45.8	371.9	-9.0	355.5	7.4	343.1	19.8	11.0	22.7
6	Hackensack River	105.7	21.7	74.0	95.7	51.2	146.9	147.7	7.2	154.9	-7.9	162.6	-15.9	170.4	-23.5	2.6	0.1
7	Pohatcong River	48.9	5.8	0.0	9.8	0.9	16.7	0.9	2.7	3.6	7.1	4.0	6.7	4.5	6.2	0.0	0.3
8	Musconetcong River	134.1	29.8	0.0	29.8	1.8	28.0	1.8	4.8	3.0	22.9	5.7	21.9	6.1	20.0	0.0	1.6
9	Trenton Delaware Tributaries	67.5	17.6	0.0	63.6	-66.7	16.9	0.4	2.1	2.5	14.4	3.1	13.5	3.8	13.1	0.0	0.1
10	Raritan River	554.0	116.5	104.0	270.0	-27.5	213.2	0.4	54.2	117.7	80.5	141.2	71.9	104.2	49.0	130.0	24.6
11	South River	126.3	24.7	8.0	32.7	23.8	56.5	33.7	60.1	63.7	-27.2	66.4	-41.9	116.7	-60.3	0.6	34.0
12	Navesink/Swimming Rivers	165.3	31.8	37.8	64.2	11.8	76.8	47.6	19.8	67.3	13.5	62.4	13.4	81.8	14.2	29.8	20.4
13	Manasquan River	73.7	6.1	30.0	36.1	-13.0	26.1	1.9	16.8	12.8	13.3	15.2	10.9	18.0	8.1	6.2	6.6
14	Rancocas Creek	539.6	82.6	52.2	134.8	1.5	136.3	55.1	44.7	100.6	35.5	120.1	16.3	135.4	0.9	9.7	2.9
15	Metedeconk River	111.3	11.2	0.0	11.2	0.2	11.4	1.4	13.7	15.0	-3.6	19.0	-7.5	25.6	-14.2	1.2	13.6
16	Toms River	200.0	20.0	0.0	20.0	1.9	21.9	10.0	28.1	38.2	-16.2	48.7	-26.9	62.4	-40.4	7.9	15.4
17	Camden Delaware Tributaries	217.0	38.6	0.0	38.6	11.7	48.5	13.4	105.0	118.4	-69.8	126.1	-79.9	142.0	-93.5	0.4	2.6
18	Mullica River	634.6	63.0	9.3	728	1.1	73.9	36.6	90.1	129.7	-55.8	197.9	-64.0	160.7	-66.8	20.9	46.1
19	Atlantic Coastal	240.0	23.0	0.0	23.0	0.3	23.3	0.3	11.9	12.2	13.1	16.1	7.2	27.2	-1.9	0.0	7.6
20	Salem River	298.2	40.3	3.0	43.3	0.0	43.3	15.7	14.2	30.9	12.4	34.2	9.1	35.4	7.8	12.8	8.8
21	Maurice River	54.4	54.0	0.0	54.0	0.6	54.0	2.2	60.3	62.5	-6.5	71.6	-17.9	76.8	-22.6	1.1	10.3
22	Great Egg Harbor River	311.4	31.1	0.0	31.1	0.6	31.7	1.5	19.5	20.0	10.8	26.4	5.3	30.3	1.4	0.4	3.6
23	Cape May Coastal	263.8	26.0	0.0	26.0	2.8	31.8	3.1	34.6	37.7	4.1	12.6	-19.0	30.0	-7.2	0.2	10.6
	TOTAL	5994.9	803.1	852.6	1755.7	-3.0	1755.7	787.6	711.5	1499.1	296.6	1647.3	198.4	1785.6	-28.9	483.5	259.6

Table 3. 1995 New Jersey Statewide Water Supply Plan Action Program (in millions of dollars) (SWSP, 1996) (continued)

PROGRAMS AND PROJECTS	1982-1993 WATER SUPPLY BOND ALLOCATIONS	NEW WATER SUPPLY BOND ALLOCATIONS	TOTAL WATER SUPPLY BOND ALLOCATIONS	APPROPRIATED WATER SUPPLY BOND FUNDS	UNAPPROPRIATED WATER SUPPLY BOND FUND ALLOCATIONS	PREVIOUS COMMITMENTS FROM OTHER FUNDING SOURCES	ANTICIPATED COMMITMENTS FROM OTHER FUNDING SOURCES	SCHEDULE
11. Statewide Water Supply Plan Revision								1996
TOTAL	1.760	0.300	2.060	1.750	0.300	0.000	0.000	
12. Special Water Treatment Study								
A. Treatment Residuals Study		(0.400)	(0.400)					
TOTAL	0.660	0.400	1.000	0.500	0.400	0.000	0.000	
PURVEYOR INFRASTRUCTURE LOAN PROGRAMS								
13. Water Supply Infrastructure Rehabilitation								
A. Infrastructure Needs Survey		0.000	0.000					1990-1997
B. Infrastructure Loans		40.000	40.000					ongoing
TOTAL	120.000	40.300	160.300	100.991	59.609	0.000	0.000	
14. Interconnection Testing & Improvements								
TOTAL	15.000	0.000	15.000	8.068	6.932	0.000	0.000	
15. Polluted Wetlands & Inadequate Small Systems								
A. Loans for Construction of Water Supply Facilities to Replace Wells	n/a		n/a	n/a				ongoing
TOTAL	25.000	0.000	25.000	25.000	0.000	0.000	0.000	
16. Miscellaneous Appropriations (administrative, etc.)								
TOTAL	0.000	0.000	0.000	0.000	-3.000	0.000	0.000	
GRAND TOTAL	370.650	66.745	437.395	321.915	115.480	648.320	3.010	

7. OUTCOMES ASSESSMENT PROCESS

The 1996 SWSP described the following as the process for future SWSP development:

The next comprehensive NJSWSP will be developed shortly after the year 2000, to address requirements of the Water Supply Management Act that there be periodic updates of this NJSWSP. It is anticipated that subsequent Updates and the future NJSWSP will build upon the data base of this NJSWSP as well as the proactive strategies embodied in this document. Our knowledge and analytical capabilities related to issues of balancing human water needs with that of ecosystem, groundwater behavior, optimization of water uses, and so on, grow every year. Water supply planning is undergoing a transition where emphasis will be placed on extending existing supplies as long as possible through monitoring, management, and protection. Future Updates and NJSWSPs will emphasize watershed-based planning and management and the interconnection between water supply and water quality management and land use management.

The 1996 SWSP also states:

As required by the 1981 NJ Water Supply Management Act, the NJDEP will revise and update the NJSWSP periodically, which NJDEP intends to interpret as being at least once every five years. Each revision and update shall be accompanied by a progress evaluation. In addition, progress evaluations shall be prepared and submitted to the New Jersey Legislature as and where required by individual appropriations from the Bond Fund.

Since DEP did not develop an updated SWSP, Public Law (P.L.) 2005, c.285 (New Jersey Chapter Laws, 2008) was approved by the New Jersey Legislature in 2005, which amended the Water Supply Management Act to read:

- *The department shall prepare and adopt appropriate revisions and updates to the current New Jersey Statewide Water Supply Plan no later than December 31, 2006 pursuant to the provisions of section 13 of P.L.1981, c.262 (C.58:1A-13).*
- *There is appropriated to the Department of Environmental Protection from the 'Water Supply Fund' created pursuant to the 'Water Supply Bond Act of 1981,' P.L.1981, c.261, as*

amended by P.L.1983, c.355 and P.L.1997, c.223, the sum of \$2,500,000 to revise and update the New Jersey Statewide Water Supply Plan as provided in section 2 of P.L.2005, c.285.

DEP's SIO has the primary responsibility of the development of the updated SWSP as well as future updates. According to their website (DEP-SIO, 2008):

The current update to the NJSWSP is scheduled to be completed by January 2007. The NJSWSP will provide a blue print to guide the management, conservation and development of the State's water resources during the next 50 years. Also, the NJSWSP will help to ensure that sufficient quantities of water supplies are available to all parts of New Jersey while balancing water quality and ecosystem health concerns.

Whether or not the future SWSP will have performance measures or if DEP will develop performance measures and a plan review/revision timetable is unclear.

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9. POTENTIAL STATE-SPECIFIC INTERVIEW QUESTIONS²

The 1996 Statewide Water Supply Plan states the following:

- *The next comprehensive NJSWSP will be developed shortly after the year 2000, to address requirements of the Water Supply Management Act that there be periodic updates of this NJSWSP. It is anticipated that subsequent Updates and the future NJSWSP will build upon the data base of this NJSWSP as well as the proactive strategies embodied in this document. Our knowledge and analytical capabilities related to issues of balancing human water needs with that of ecosystem, groundwater behavior, optimization of water uses, and so on, grow every year. Water supply planning is undergoing a transition where emphasis will be placed on extending existing supplies as long as possible through monitoring, management, and protection. Future Updates and NJSWSPs will emphasize watershed-based planning and management and the interconnection between water supply and water quality management and land use management.*
 - *As required by the 1981 NJ Water Supply Management Act, the NJDEP will revise and update the NJSWSP periodically, which NJDEP intends to interpret as being at least once every five years. Each revision and update shall be accompanied by a progress evaluation. In addition, progress evaluations shall be prepared and submitted to the New Jersey Legislature as and where required by individual appropriations from the Bond Fund.*
1. In the 1996 SWSP, there are references to a Statewide Water Quality Management Plan. Does this plan exist? Is it a stand-alone document? If not, what are the various documents that compose the Statewide Water Quality Management Plan?
 2. How will the next SWSP be different from the current plan? What is leading to this change?
 3. What are the main differences between Watershed Management Plans and Water Quality Management Plans?
 4. Since the development of the 1996 State Water Supply Plan, has New Jersey conducted any formal reviews of the planning process and successes and/or failures of the plan? If so, are these reviews public documents? Have these formal reviews been performed?
 5. How is the State Water Supply Loan Program related to the Bond Fund?

² Representatives from the State of New Jersey did not participate in an interview.

6. What were the major reasons causing the delay of the updated SWSP?
7. Will the new State Water Supply Plan be considered integrative or comprehensive, i.e., will it consider broader water resource functions such as recreation, instream/environmental needs, hydropower, navigation, flood and coastal storm damage reduction? (The 1996 Plan mentions the need for integrative, watershed-based planning and management.)
8. Has there been any effort made to develop a comprehensive plan that combines planning for water supply and water quality? Why or why not?
9. Will the new State Water Supply Plan have a set of clearly defined goals, a plan implementation timeline or deadlines? Or will it be structured similarly to the 1996 plan, i.e., identification and discussion of the issues followed by a series of recommendations without any timelines?
10. Will the updated SWSP be accompanied by a progress evaluation as promised in the 1996 plan?
11. Will the updated SWSP include a set of goals and performance measures that can be used to assess the progress of plan implementation?
12. Does the updated SWSP consider and/or provide mitigation strategies for dealing with climate change? If not, is there a state initiative that considers climate change?
13. What new water supply planning and management issues does New Jersey face since the development of the 1996 plan?
14. Besides continuing and establishing DEP projects and programs, how does the state implement the SWSP? How does the state evaluate the effectiveness of projects and programs?