

Building Strong Collaborative Relationships for a Sustainable Water Resources Future:

STATE OF CONNECTICUT
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 CONNECTICUT¹

1. STATE/REGIONAL WATER PLANNING STATUS

The Office of Planning and Management (OPM) is the Connecticut's lead planning agency (not limited to water resources) that coordinates state water resources policy. They also assist state agencies and municipalities in implementing policy decisions (OPM, 2008(a)).

Three other state agencies also provide water resource programs, planning and management: the Department of Environmental Protection (DEP), the Department of Public Health (DPH), and the Department of Public Utility Control (DPUC).

The heads of OPM, DEP, DPH, and DPUC are members of the state Water Planning Council (DEP, 2008(c)). The WPC was established in 2002 with its primary goal being "to address issues involving the water companies, water resources and state policies regarding the future of the state's drinking water supply (Connecticut General Statutes (CGS) § 25-33o)."

Connecticut has two main water resources-related plans: (1) is the "Conservation and Development Policies Plan for Connecticut 2005-2010 (C&D Plan)," developed by OPM; and (2) WPC Annual Work Plans/Reports to the General Assembly.

The C&D Plan serves as an overarching, comprehensive framework (OPM, 2008). It establishes statewide policies and objectives in the following areas of water resources: water/wastewater infrastructure, drinking water supplies, wetlands, water quality, and flooding. It does not contain an implementation plan or timeline. Legislation requires that state agency plans be aligned to the objectives of the C&D Plan (CGS § 16a-31).

The C&D Plan states that one major challenge of policy implementation is the state's system of "home rule", where each municipality has autonomy over local land use decisions. "Although the Plan strives to achieve a high degree of consistency with municipal and regional plans of conservation and development and local zoning regulations, only state agency actions are required to be consistent with the Plan. Municipalities must consider the Plan and note any inconsistencies when they update their own plans, but they are not required to reconcile any differences (C&D Plan)."

In 2005, the General Assembly adopted Public Act 05-205 which requires regional planning organizations (RPOs) to develop regional conservation and development plans that are consistent with the state C&D Plan. Connecticut, therefore, has a top-down approach where state policies guide local policies.

In its 2003 Annual Report, WPC presented three major findings (needs):

1. There is a "need for the development of a comprehensive and streamlined water allocation process for all water uses, based on sound science and accurate data on all water uses."

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

2. There is a “need for adequate, stable resources with which to implement all components of water allocation management.”
3. There is a need to coordinate water policy.

The 2003 WPC Report provided a series of recommendations, including that the Water Allocation Policy Planning Model developed by the WPC Water Allocation Subcommittee be adopted as blueprint for developing a comprehensive state water allocation/management program (WPC, 2003). This model or flowchart (Figure 1) was immediately adopted and continues to serve as a guiding framework for WPC’s Work Plans (e.g., The 2007 Work Plan (WPC, 2008)).

The state’s drought plan is called the “Connecticut Drought Preparedness and Response Plan.” The plan was developed in 2003 by the Interagency Drought Work group that includes representatives from DEP, OPM, DPH, the Department of Agriculture, the Office of Emergency Management and the U.S. Geological Survey (USGS). The Plan (Interagency Drought Work Group, 2003):

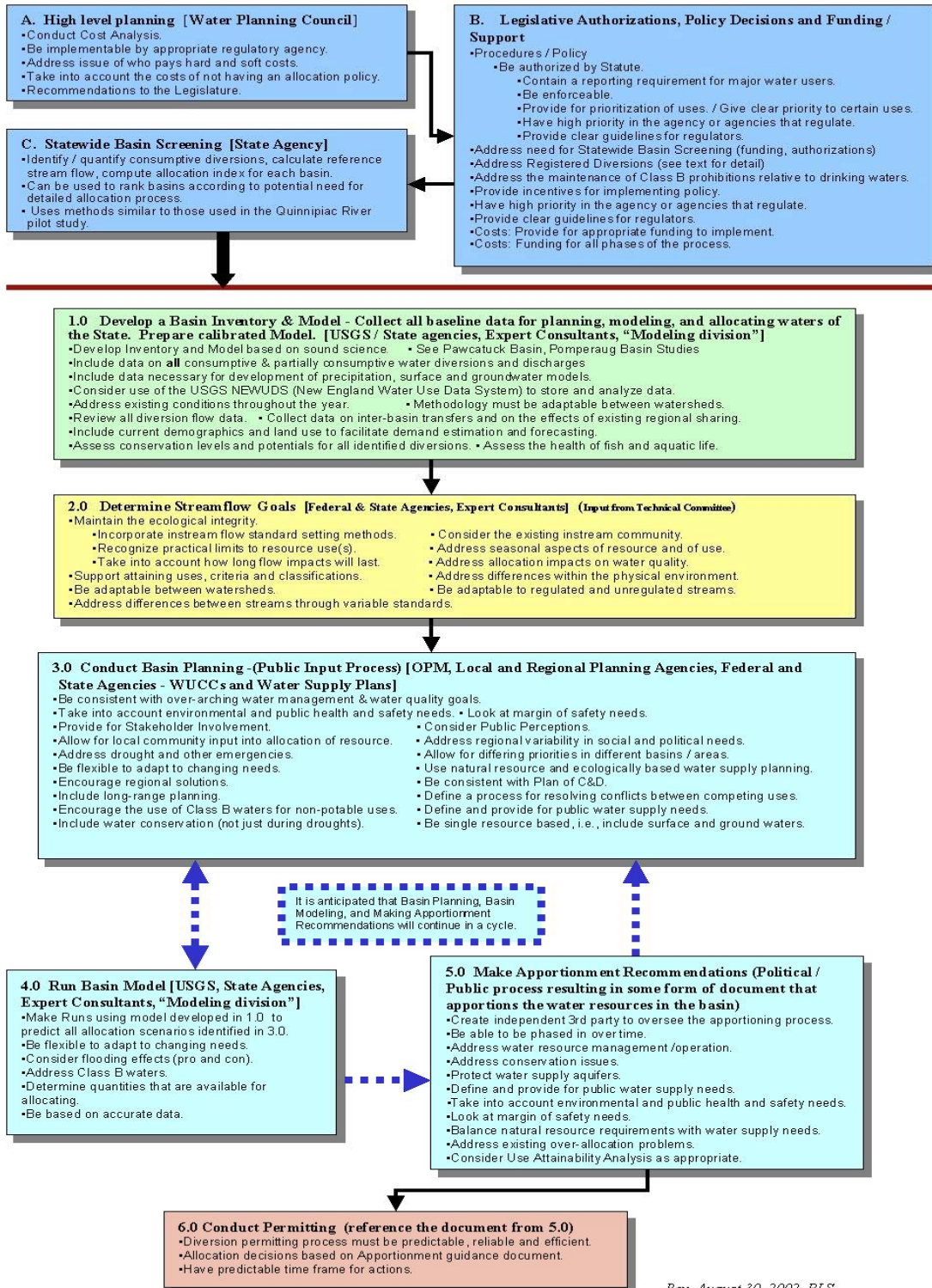
1. *Defines a process to guide state agencies to address drought-related activities, including monitoring, impact assessment, and the preparedness for successively more severe drought stages.*
2. *Identifies activities that may be implemented to coordinate drought assessment, response and impact mitigation*
3. *Identifies the state, local, federal and private sector entities that are primarily responsible for managing drought-related activities.*
4. *Promotes effective mobilization of public and private resources to manage drought mitigation efforts.*

2. RESPONSIBLE STATE AGENCIES/REGIONAL ENTITIES

DEP administers most of the state’s water resources and water quality laws, including the Water Diversion Policy Act (CGS §§ 22a-365 to 378). DPH has jurisdiction over all water resources used for drinking water supply (CGS § 25-32) and is responsible for reviewing required water supply plans submitted by water utilities supplying water to 1,000 or more individuals (CGS § 25-32d).

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Water Allocation Policy Planning Model



Rev. August 30, 2002 PLS

Figure 1. Water Allocation Policy Planning Model (WPC, 2003)

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DPH and DPUC are also responsible for overseeing local water supply plans of public (DPH) and private (DPUC) water companies. The state currently has seven public water supply management areas (Figure 2), four of which have a Water Utility Coordinating Committee (WUCC). Each WUCC, with consultation from DEP, DPH, DPUC, and OPM, is responsible for conducting a water supply assessment in their region (CGS § 25-33g).



Figure 2. Public Water Supply Management Areas (DPH, 2008)

Types of problems public water systems are facing include (DPH, 2008):

- *Uncoordinated planning among public water systems*
- *Competition between public water systems for expansion of service areas*
- *Increasing regulatory requirements*
- *Aging and substandard infrastructure*
- *Inadequate source protection*
- *Difficulty in developing new water sources*
- *Inadequate financing*
- *Poor management*

3. WATER MANAGEMENT VISION AND GOALS

Connecticut's statewide goals and policies were established by legislation and include (CGS § 22a-380):

1. *To preserve and protect water supply watershed lands and prevent degradation of surface water and ground waters*
2. *To protect groundwater recharge areas critical to existing and potential drinking water supplies*
3. *To make water resources conservation a priority in all decisions*
4. *To conserve water resources through technology, methods and procedures designed to promote efficient use of water and to eliminate the waste of water*
5. *To prevent contamination of water supply sources or reduction in the availability of future water supplies*
6. *To balance competing and conflicting needs for water equitably and at a reasonable cost to all citizens*
7. *To reduce or eliminate the waste of water through water supply management practices*

The state's vision is given in the C&D Plan as:

The State has a vision of remaining one of the country's most dynamic and attractive areas characterized by a robust economy; strong linkages to regional and global economies; a pristine set of shoreline and rural areas; stimulating urban centers; valued educational institutions; a hot bed for technology, bioscience and other critical industry clusters; and employment opportunities to enable all of its residents to pursue their dreams.

To balance the state's conservation and development policies, the C&D Plan provides six growth management principles. These growth management principles and water resources-related policies are (OPM, 2005):

1. *Redevelop and revitalize regional centers and area with existing or currently planned physical infrastructure.*

Policies:

- *Support existing communities and neighborhoods by targeting state resources to support infrastructure improvement and development in areas where the infrastructure is already in place.*
- 2. *Expand housing opportunities and design choices to accommodate a variety of household types and needs.*
- 3. *Concentrate development around transportation nodes and along major transportation corridors to support the viability of transportation options.*
- 4. *Conserve and restore the natural environment, cultural and historic resources, and traditional rural lands.*

Policies:

- *Provide a system of appropriately managed natural areas with a diversity of well-functioning habitats and a wide variety of high quality outdoor recreational opportunities to all citizens, emphasizing activities that broaden understanding of and contact with the natural environment. Assess statewide needs for recreational resources and facilities. Develop management plans that maximize multiple uses of state-owned lands, and encourage collaborative ventures with municipal and private entities to provide, protect, and manage recreation and habitat lands.*
- *Seek to achieve no-net-loss of wetlands and watercourses through development planning that avoids wetlands whenever possible, prevents or minimizes pollution or other environmental damage to wetlands and watercourses.*
- *Prevent the loss of life and property in the floodway.*
- *Manage Connecticut lakes and associated watersheds to enjoy optimal water quality and recreational benefits.*
- *Promote the objectives of the Long Island Sound Restoration Program.*
- *Promote Connecticut's commercial and recreational fishing and aquacultural industries consistent with marine productive capacities.*
- *Plan and manage for the long-term public benefit the lands contributing to the state's need for food, fiber, water and other resources, open space, recreation, and environmental quality and ensure that changes in use are compatible with the identified conservation values.*
- *Plan, manage, and regulate water resources on a watershed basis (including interstate cooperation where appropriate).*
- *Prevent inappropriate development in the flood fringe by ensuring that projects are in conformity with local, state, and federal statutes and regulations.*
- *Encourage management of natural resources that preserves the diversity of habitats and species and achieves sustainable yields of renewable resources.*

5. *Protect and ensure the integrity of environmental assets critical to public health and safety.*

Policies:

- *Protect public health by meeting or exceeding state and federal drinking water standards for water supplies, by preventing the degradation of water supplies through the proactive protection of drinking water sources, and by providing adequate levels of treatment. Use a multiple barrier approach so that all public water supplies meet all drinking water standards.*
 - *Identify water supply resources sufficient to meet existing demand, to mitigate water shortages during droughts, and to meet projected growth and economic development over at least the next 50 years.*
 - *Ensure that water conservation is a priority consideration in all water supply planning activities and regulatory decisions. This should include source conservation, demand conservation, increased source and customer metering, pricing policies, education, more rapid repair of leaking pipes, and replacement of water devices with more water efficient devices.*
 - *Promote coordinated and efficient water utility supply and delivery systems and service areas that conform to state and regional plans of conservation and development.*
 - *Improve the timely resolution of water resource conflicts by balancing the competing needs of water for human consumption, waste assimilation, habitat, recreation, power production, and transport. Encourage continued federal financial assistance to the state to meet clean water goals.*
 - *Continue to improve the quality of ground and surface water through a combination of pollution prevention and pollution abatement practices.*
 - *Restore the water quality of Long Island Sound.*
6. *Promote integrated planning across all levels of government to address issues on a statewide, regional and local basis.*

The mission of the WPC is, “The Water Planning Council will identify issues and strategies which bridge the gap between the water supply planning process and water resources management in order that water can be appropriately allocated to balance competing needs while protecting the health, safety and welfare of the people of Connecticut and minimize adverse economic and environmental effects (WPC, 2008).”

In their 2003 annual report, the WPC made eight general recommendations and provided 26 corresponding action items:

1. Adoption of a Water Allocation Policy Planning Model
 - a) *The WPC will evaluate and address the capacity of the states existing authorities to develop and implement the recommended water allocation-planning model. Accordingly, the WPC shall review with appropriate stakeholder representation current water resource management programs and consider possible changes to the water planning*

and permitting functions, including adjustments to existing authorities, program functions or organization as may be deemed appropriate.

- b) Recruit a select workgroup to more fully describe (in detail) the procedures that are necessary for implementation of a Water Allocation Policy Planning Model.*
- c) The WPC will assign a select workgroup of stakeholders previously involved in WPC subcommittees to identify methods and mechanisms to adequately fund the proposed statewide water allocation planning process.*
- d) Each state agency represented on the WPC will report on the requirements necessary to create a comprehensive database that identifies all potential future sources of supply cited in Water Supply Plans, WUCC Plans and any other planning documents.*
- e) DEP will draft and present back to the Council a legislative proposal for the 2004 session that will implement the following Water Allocation subcommittee recommendations regarding registered diversions:

 - a. Retire unused registered diversions with no plans for future use*
 - b. Adopt standard methods for measuring flow from registered diversions*
 - c. Adopt a requirement for annual reporting of monthly cumulative withdrawal data*
 - d. Require annual (or other frequency) fees for registered diversions**
- f) DEP will draft a legislative proposal consistent with consensus of the subcommittee report that will implement recommendations regarding modifications to the DEP's General Permit for Consumptive Diversions.*

2. Continuation of Source Water Assessment Program

- a) The WPC supports the continuation of the Source Water Assessment Program (SWAP). To assure continued protection of the state's high quality drinking waters, the WPC will request continued funding from EPA SDWA for SWAP.*

3. Improve Water Supply Planning and Source Protection

- a) The WPC recommends DEP move forward with the adoption of the Aquifer Protection Land Use Regulations. In addition, the WPC recommends DEP proceed with adoption of revisions to the Level A Mapping regulations to incorporate more accurate modeling of wellfields which will establish more accurately mapped boundaries in accordance with advice from technical experts.*
- b) The WPC will recruit a workgroup to investigate a potential mechanism and to conduct a land use inventory of land within water supply watersheds and aquifer protection areas.*

4. Revise Stream Flow Regulations

- a) The DEP will convene a working group consisting of other state agencies, the scientific community, and affected stakeholders to develop a framework for establishing an interim approach for regulating minimum stream flows. The goal of the working group is to develop interim approaches to address instream flow issues and revision of the minimum stream flow regulations.*

- b) *DEP will continue to work with a broad range of stakeholders to develop a long-term instream flow protocol consistent with the WPC's endorsed water allocation model and including an assessment of cost and feasibility of implementation.*
- c) *The WPC will recruit a working group (February 2003) to evaluate the cost and feasibility of maintaining a scientifically defensible stream gaging network. The workgroup will report on findings and recommendation to the WPC by January 2004. The following approach is outlined for the work group:*
 - a. *Review the existing status of Connecticut's stream flow and groundwater data collection network*
 - b. *Identify an optimal strategic stream and groundwater-gaging network for water resource management needs in Connecticut. Compare such a network to the existing conditions and recommend a scientifically feasible and prudent gaging network.*
 - c. *Develop an approach to use the recommended gaging network to synthesize stream flows data for use in analysis of ungaged streams*
 - d. *Identify funding needs for establishing gaging networks and statistics along with the strategies to achieve such funding levels.*

5. Enhance Conservation Measures

- a) *The WPC directs the Multiple Agency Drought Committee to proceed with work on the Draft Drought Management Plan with WPC Subcommittees to finalize a Drought Management Plan for the State Of Connecticut with all deliberate speed. The prepared Draft Drought Management Plan was released for public comment on January 6, 2003 with comments due on February 7, 2003.*
- b) *The DPUC shall propose legislation requiring all new lawn irrigation systems to be installed with rain detectors.*
- c) *The DPUC shall host an annual educational water symposium, incorporating rate cases and conservation issues, beginning in 2003.*
- d) *The WPC shall establish a workgroup to specifically investigate and consider the development of a water conservation rebate program similar to the Energy Star Program.*

6. Improve Business Relationship between Water Utilities and State Regulatory Agencies

- a) *The DPUC shall begin initiating the filing of Water Company annual reports and actual 5-year debt retirements electronically. The WPC further directs the DPUC to enhance enforcement of violators.*
- b) *The WPC assigns the DPUC to study and revise the existing Enhanced Financial Viability Model (EFVM) or consider the development of an entirely new EFVM.*
- c) *The WPC assigns the DPH to make available viability models, both existing and pending, during the Sanitary Survey process.*
- d) *The WPC shall create a workgroup to review the procedures for the purchasing and/or takeover of small water systems to eliminate any perception that an unfair price is being paid. Specifically, determination of what level of oversight the DPUC should be granted*

on a takeover or purchase that involves a regulated company and an unregulated company.

7. Improve Small System Assistance

- a) *The WPC will establish a work group to explore relaxation of ex parte communication restrictions.*
- b) *The WPC assigns the DPH to investigate creating a list of approved vendors and contractors.*
- c) *OPM, DEP, DPH and DPUC Commissioners will recommend to the State's Congressional delegation and EPA the need for revision of the SRF loan fund application process and eligibility requirements to enable easier access by small water companies.*
- d) *The WPC assigns the DPH and DPUC to jointly develop a protocol requiring supply side production master metering on sources and within distribution especially for companies seeking additional sources of supply and diversion permits. This shall be investigated and considered for the 2004 legislative session.*
- e) *The DPUC shall investigate and consider for the 2004 legislative session, the development of a surcharge for infrastructure improvements, similar to the construction work in progress surcharge that is used for safe drinking water act mandated projects, for class B and C companies.*

8. Advance Water Utility Coordinating Committees Planning Process

- a) *The WPC recognizes the considerable comments and interest focused on the Water Utility Coordinating Committee (WUCC). The Council will have relevant existing legislation and regulations reviewed with public participation for the purpose of proposing constructive changes in both the WUCC and the associated Certificate of Public Convenience and Necessity processes for potential legislation in 2004.*

4. SCOPE OF WATER RESOURCES PLANNING AND MANAGEMENT

Although the state has two regional delineations, one for water supply planning (7 regions, Figure 2) and one for water quality planning (5 regions, Figure 3), the state does not engage in regional water quality or water supply planning. Under the state's system of "home rule," much of the state's water resources planning occur at the local or municipality level.

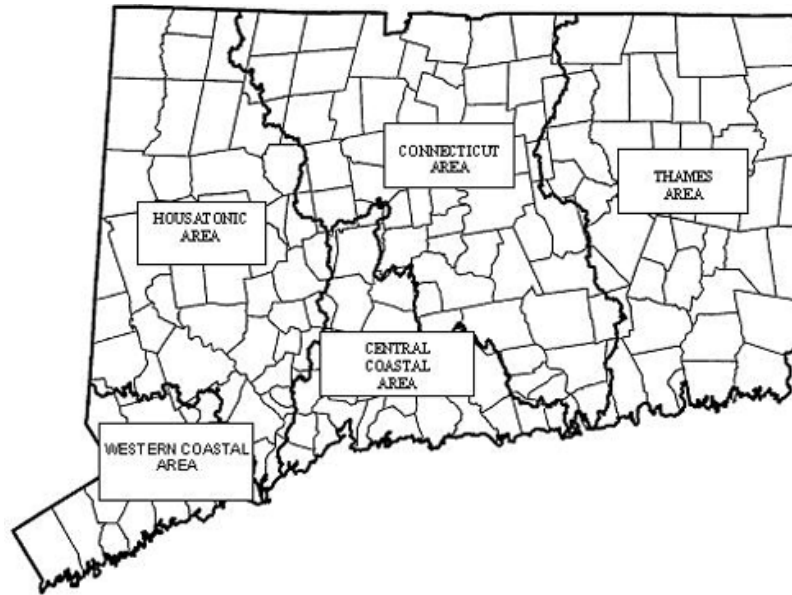


Figure 3. Connecticut's Five Major Watershed Management Areas (DEP, 2008(a))

Through DEP's Watershed Management Program, the state assists communities in the development of watershed-based plans that focus primarily on water quality issues (DEP, 2008). Each watershed plan covers only a fraction of the total water planning area (e.g., the Thames areas in Figure 3).

The state is divided into 15 local (county-based) planning regions (Figure 4), which are designated by OPM (CGS § 16a-4a). There are three types of regional planning organizations (RPOs): Council of Elected Officials (CEO), Council of Governments, or Regional Planning Agency (OPM, 2008(c)).

Beginning in 2005, RPOs are required to develop regional conservation and development plans and OPM is required to check these plans for consistency with the state C&D Plan (CGS § 8-35a). Like the statewide plan, many of the regional plans are policy (or recommendation) only documents. Some include more detailed analyses including water supply assessments (e.g., Housatonic Valley CEO (2008)). RPOs are also directed to assist municipalities in the implementation of these regional plans (CGS § 8-35a).

5. PARTNERSHIPS, STAKEHOLDER, AND PUBLIC INVOLVEMENT

Connecticut has federal partnerships with the US Geological Survey, US Army Corps of Engineers, and US Environmental Protection Agency. In addition to OPM, DEP, DPH, and DPUC, state partners include the Office of Emergency Management, the Department of Agriculture and the University of Connecticut.

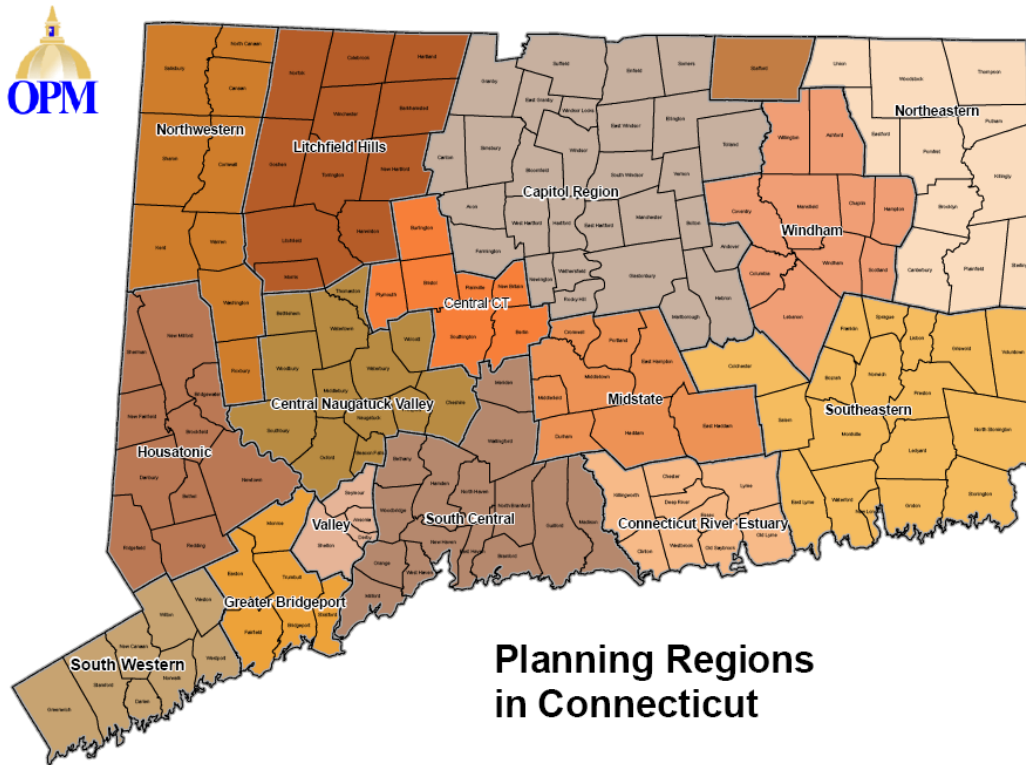


Figure 4. Regional Planning Organizations in Connecticut (OPM, 2008(b))

Legislation requires that OPM and the various RPOs hold public meetings prior to the adoption of the statewide and regional conservation and development plans. However, it is unclear to what extent the public is involved in the rest of the planning process.

DEP encourages public involvement in the department's ongoing operations and activities. The DEP calendar, public notices, declaratory rulings, news releases, newsletters and magazines, and links to laws and regulations are posted on DEP's website "Public Participation" (DEP, 2008(b)).

6. PLAN IMPLEMENTATION STRATEGY

The state has a top-down approach to implementing water resources policies: state agency policies and RPO policies are coordinated with statewide policies. The state also establishes a series of programs through legislation aimed at implementing state policies (e.g., permitting through Water Diversion Act).

7. OUTCOMES ASSESSMENT PROCESS

Per CGS § 16a-32, OPM is required to report annually to the Continuing Legislative Committee on State Planning and Development on the progress made toward implementation of the C&D Plan and the extent to which state actions have been in conformity. Development and approval of the C&D Plan requires direct legislative participation.

According to the 2008 WPC Report: five of the 26 Action Items have been completed; one has been deleted; and the remaining action items have been initiated and are currently ongoing. The report does not offer any opinions on how well their plan is going.

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Potential State-Specific Interview Questions²

1. Is the statewide Conservation & Development Policies Plan for Connecticut 2005-2010 used as a comprehensive or statewide plan? Why or why not?
2. What was the impetus or reason for developing this plan?
3. The statewide Conservation & Development Policies Plan for Connecticut 2005-2010 provides a series of policies and objectives. How successful has the state been in implementing/accomplishing those policies (e.g., percent of policies included in regional conservation and development plans or percent improvement over original conditions)?
4. Will the C&D Plan updated (due in 2009) be accompanied by a review/assessment of the 2005-2010 plan? What form will this assessment or evaluation take? Any plan to develop performance measures?
5. Under the state's system of "home-rule", how does the state plan addressing the impacts of climate change such as sea level rise?

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