

State of Connecticut
Water Planning Council



Report on the Status of the Development and
Implementation of the State Water Plan

January, 2016

Department of Public
Health



Department of Energy &
Environmental Protection
and
Public Utility Regulatory
Authority



Office of Policy and
Management



January, 2016

Chairmen and Members of the Energy and Technology Committee
Chairmen and Members of the Environment Committee
Chairmen and Members of the Planning and Development Committee
Chairmen and Members of the Public Health Committee

Subject: Report on Water Planning Council Activities and Work Plan for 2015

Dear Chairmen and Ranking Members:

Attached please find the Water Planning Council's (WPC's) first *Report on the Status of the Development and Implementation of the State Water Plan*, pursuant to Section 22a-352(g) of the General Statutes. This report describes the WPC's and others' activities in 2015 and objectives for 2016 and beyond.

In 2014, the General Assembly, through [Public Act 14-163](#), amended Sec. 22a-352 to establish expectations for a state water plan, providing a list of 17 requirements and a time frame for plan completion and approval. As stated in PA 14-163, the plan must balance the needs of public water supply, economic development, recreation and ecological health. The plan is to be completed in 2017 and, following public review and comment, the WPC is to submit a finalized plan to four committees of the General Assembly by the beginning of 2018. Funding has been provided to begin the process, and much work must be done so the WPC can provide a meaningful plan for the General Assembly's consideration. The WPC looks forward to the state's continuing commitment to a thorough and thoughtful plan.

The WPC is comprised of four agencies: the [Department of Energy and Environmental Protection](#) (DEEP), [Department of Public Health](#) (DPH), [Office of Policy & Management](#) (OPM) and [Public Utilities Regulatory Authority](#) (PURA). The WPC is advised by a legislatively established Water Planning Council Advisory Group comprising representatives of water utilities, various other business and industry interests, various environmental and recreation interests, agricultural interests, regional councils of government and public health districts. In undertaking the new planning process, under CGS Section 22a-352 the WPC has also established a Steering Committee, Policy Committee and Science & Technical Committee. Input from the Advisory Group and the three new committees, guided by members' experience and expertise in factors to be addressed in the plan, is vital in the planning process.

The WPC has already undertaken a range of outreach, engagement and communication strategies so that the process can recognize all perspectives. The challenge in the development of the State Water Plan is to bring together all interests and provide for a balanced approach toward water planning for the benefit of all citizens of the State of Connecticut. This report provides an overview of plan requirements and current activities. PURA's website, at [http://www.dpuc.state.ct.us/DPUCINFO.nsf/\\$FormWaterPlanningView?OpenForm](http://www.dpuc.state.ct.us/DPUCINFO.nsf/$FormWaterPlanningView?OpenForm), provides access to all reports and other documents related to WPC activities. A new website is under development to better integrate access to information about the state's water planning and management efforts. If you have any questions or concerns, please contact Gail Lucchina at the Public Utility Regulatory Authority at 860-827-2672 or at Gail.Lucchina@ct.gov.

Sincerely,

Vice Chairman John W. Betkoski III (PURA)
On behalf of the other members of the Water Planning Council,
Branch Chief Ellen Blaschinski (DPH)

Director of Municipal Finance Services W. David LeVasseur (OPM)
Deputy Commissioner Michael Sullivan (CT DEEP)

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Cover Photo: Shetucket River, Taftville
Lisa Harraka, Lisbon, CT

Executive Summary

The Water Planning Council (WPC) was established pursuant to [PA 01-177](#) “to address issues involving the water companies, water resources and state policies regarding the future of the state’s drinking water supply.” [PA 14-163](#) added new requirements for a state water plan, one that balances the needs of public water supply, economic development, recreation and ecological health.

The WPC is comprised of the commissioner, or designee, of the [Department of Public Health](#) (DPH); two designees from the [Department of Energy & Environmental Protection](#) (CT DEEP), one representing the [Public Utilities Regulatory Authority](#) (PURA) and one representing [CT DEEP’s Environmental Quality Branch](#); and the Secretary, or designee, of the [Office of Policy and Management](#) (OPM).

The WPC established the Water Planning Council Advisory Group (WPCAG), pursuant to [PA 07-4, Section 2\(c\) of June Special Session](#), to assist in researching and analyzing water resources issues.

The WPCAG is a group of people representing a wide range of interests in the state's water resources who collectively advise and support the work of the WPC.

The WPCAG has devoted considerable time at their meetings this year on matters related to the development of the Plan. The WPC indicated it wanted the WPCAG to have a role in communications and outreach related to the State Water Plan. The co-chairs of the WPCAG are members of the Steering Committee and serve to provide input from the broader group of WPCAG stakeholders on the Plan and the process to develop it.

Following passage of PA 14-163, the WPC hosted a public discussion of approaches for initiating the new planning process. The WPC, through OPM, subsequently entered into a memorandum of understanding with UConn, which contributed the in-kind services of a senior administrator to serve as a project manager in initiating the planning process.

The WPC established three new Committees: a Steering Committee, Policy Committee and Science & Technical Committee to assist with the planning effort and is securing professional services to assist in plan development.

Tom Callahan, a senior UCONN administrator, provided project management services to help organize and launch the state water planning process pursuant to terms of a no-cost MOU with the WPC.

UConn hosted a day-long planning retreat on 6/30/2015. The one day workshop was led by Susan Podziba. The Steering Committee developed a mission statement: the Connecticut Water Planning Council Steering Committee will prepare a statewide water plan for the balanced management and protection of water resources of the state. The WPC Steering Committee will work to ensure that the state water plan is prepared in accordance with the criteria set out in Section 1(a); and that the water plan achieves the objectives set out in Section 1(b) of Public Act 14-163. Every effort will be made to complete the statewide water plan by July 1, 2017. A copy of the final workshop report will be posted on the new WPC website.

The WPCAG, Steering Committee, Policy Committee and Science & Technical Committee are researching planning needs and providing guidance to the WPC. On behalf of the WPC, the OPM has entered into an agreement with the New England Interstate Water Pollution Control Commission (NEIWPCC). As a not-for-profit

interstate agency, NEIWPCCC serves and assists member states by coordinating activities and forums that encourage cooperation among the states, developing resources that foster progress on water issues, representing the region in matters of federal policy, training environmental professionals, initiating and overseeing scientific research, educating the public and providing overall leadership in water management and protection. In collaboration with NEIWPCCC, a qualifications-based professional services solicitation is underway and will be completed in April. The WPC has established a team of individuals to review proposals and eventually enter into an agreement with a consulting firm that will best suit the requirements of the State Water Plan.

Public Communications Strategy

The WPC has articulated its expectation to engage all interested parties in inclusive water planning effort and a robust communication and outreach strategy will be a key factor in its success. The WPCAG will play an important role in developing this communications strategy.

Heading into the water planning process, the WPC's primary communication channels consisted of a dedicated document repository within PURA's website and web-based docket system, together with an assembly of e-mail distribution lists maintained by OPM. Following the recommendations of the Steering Committee, the WPC deemed existing communications practices to be inadequate and instructed OPM to develop a new, dedicated website and social media presence.

OPM is, as of late 2015, building a new WPC website, <http://ct.gov/water>, in cooperation with the Department of Administrative Services (DAS). The website is designed to provide the public with relevant information and up-to-date news regarding water planning activities.

An integrated calendar will offer better coordination of meeting schedules, and linked e-alert functionality will keep registered guests up-to-date with important announcements and reminders. DEEP, DPH, and PURA are assisting in the effort to develop educational resources for the new website, including a clear, easy-to-understand overview of Connecticut's water resources and the government's role in managing them.

OPM expects to soft-launch the new website in late 2015 and complete full build-out of all pages in 2016. It is anticipated that supplementary social media pages will be launched soon thereafter.

Other States' Plans

The WPC organized the Other States' Plans Work Group, with assistance from the WPCAG, for the purpose of reviewing the water plans and water planning processes of other states for information applicable to the development of CT's own plan. Members of the workgroup are volunteers from a diverse array of water backgrounds, including academia, government, water utilities, watershed associations, environmental advocates, and consulting.

With PA 14-163 providing the context, the group researched a wide variety of topics. In particular, the group tried to understand the range of possible approaches to planning that other states have employed, assessing the strengths and weaknesses of different approaches. Based on that assessment, the group was able to provide an analysis of water planning practices applicable to Connecticut.

The OSPW met regularly from November 2014 through May 2015, with the initial focus being on identifying states for detailed review and developing a systematic Water Plan Evaluation process based on the expectations of PA 14-163.

The Water Plan Evaluation process assessed a broad array of topics, including water governance and policy framework, the planning process and scope, public education, conflict resolution, and the similarities and differences relative to Connecticut.

The State Water Plan Evaluation Framework is available at:

http://streamingwater.org/wp-content/uploads/2014/11/EvaluationFramework_20141125.docx

Using the detailed Water Plan Evaluation Framework, group members reviewed water planning efforts in 19 states. These states were chosen as being most useful to Connecticut, based on similar summaries done for two other states and on recommendations by members of the Workgroup. The framework served as a common platform for comparing planning efforts among states. Individual evaluations for each state can be found

at <http://streamingwater.org/oswp/#REVIEWERS>.

Based on those individual evaluations, the group was able to produce concise state summaries focusing on high priority topics including stakeholder engagement, funding, prioritization processes, perceived acceptability of data and models, and the roles and responsibilities of state agencies. Subsequent meetings provided opportunities for workgroup members to present and discuss the findings from each state, and in June, 2015, the group submitted a report to the Water Planning Council's Steering Committee.

The Report is organized around nine overarching planning principles and identifies several key elements fundamental to the development of a State Water Plan. The group also developed a model table of contents consisting of topics common to most states' plans, to serve as a starting point for Connecticut's Water Plan. A copy of that report is available at <http://streamingwater.org/oswp/>

Following submission of the report and presentation of its findings, the group was asked to revise and resubmit the model table of contents so that it will also include specific issues raised in the Workshop. The group was also asked to cross check the draft against

water planning elements outlined in PA 14-163 and with the report's own Water Planning Principles and Key Elements. The group held additional meetings to complete those tasks and all final documents are available

at: <http://streamingwater.org/oswp/#REVTOC>

The work of the Other States' Plans Workgroup was not intended to be an all-inclusive review of water planning in other states but to instead serve as an informational resource for the WPC and others in the development of a Connecticut State Water Plan.

Water planning, 2016 & beyond

[PA 14-163](#) identifies 17 requirements for a state water plan.

(1) Identify the quantities and qualities of water that are available for public water supply, health, economic, recreation and environmental benefits on a regional basin scale considering both surface water and groundwater;

The WPC agencies and others have substantial data relating to water quantity and quality. An initial priority of the planning process has been to identify and compile data already available and to determine any further data needs. Based on discussions to date regarding the appropriate regional scale for water planning, it is likely that the scale will vary based on the scope of the issue being analyzed. The fine level of geographic detail that must be evaluated for some situations will not be necessary for others.

(2) Identify present and projected demands for water resources on a state-wide and regional basin scale;

While WPC agency programs already consider present and future demands for water resources, it is unclear how those processes might change in light of PA 14-

163's requirement that state water planning consider and balance the needs for public water supply, economic development, recreation and ecological health. As noted previously, an early priority of the planning process is to assess the availability and compatibility of such data.

(3) Recommend the utilization of the state's water resources, including surface and subsurface water, in a manner that balances public water supply, economic development, recreation and ecological health;

The state has long grappled with the sometimes competing needs of water for public water supply, economic development, recreation and ecological health. Development of this plan will require that agencies assess their program implementation and also enhance coordination to ensure that such balance can be achieved. Agencies will continue their on-going efforts to enhance program coordination to ensure that proper balance of the state's natural resources can be achieved.

(4) Recommend steps to increase the climate resiliency of existing water resources and infrastructure;

Increasing the climate resiliency of existing water resources and infrastructure will require a multifaceted approach. WPC agencies have central roles in planning the state's broader climate change response and mitigation efforts, so the WPC and other can ensure that water resources and infrastructure remain critical considerations in the state's planning and response efforts.

(5) Make recommendations for technology and infrastructure upgrades,

interconnections and such major engineering works or special districts which may be necessary, including the need, timing and general cost thereof;

Future reports will address the full range of potential approaches for addressing the state's water resource needs. Prior to recommending significant spending on any upgrades, this planning effort must first focus on developing the information necessary for evaluating water resources and demands placed on those resources.

(6) Recommend land use and other measures, including an assessment of land acquisition or land protection needs, where appropriate to ensure the desired quality and abundance of water and to promote development in concert with available water resources;

As noted in the discussion of recommendations for major engineering approaches, it is important that this planning effort first focus on developing the information necessary for such an assessment. The WPC recognizes the value of landscape-level approaches and a WPCAG work group was already supporting this effort even before the adoption of PA 14-163. The WPC agencies have considerable experience with such approaches and are active participants in the work group. Future reports will address potential approaches to be considered.

(7) Take into account desired ecological, recreational, agricultural, industrial and commercial use of water bodies;

PA 14-163's requirement for the state water plan to balance such uses will ensure that the planning effort takes into account the desired ecological, recreational, agricultural, industrial and commercial use of water bodies.

(8) *Inform residents of the state about the importance of water resource stewardship and conservation;*

Water resource stewardship and conservation has been a long-time priority of the WPC and its agencies. Beyond the generally accepted environmental benefits, stewardship and conservation of the state's waters helps maintain those resources for diverse uses and, furthermore, reduce the need for costly infrastructure expansions. As discussed elsewhere in this report, the WPC is developing its education and outreach capacity, which will be beneficial for communicating the importance of water resource stewardship and conservation, as well as how to achieve those goals.

(9) *Establish conservation guidelines and incentives for consumer water conservation with due consideration for energy efficiency;*

As described above, conservation has been a long-term priority of the WPC. WPCAG work groups have researched and made recommendations regarding a number of approaches and WPC agencies' programs encourage conservation by means of guidelines or incentives. Furthermore, beyond just giving due consideration to energy efficiency, as directed by PA 14-163, the WPC recognizes that energy efficiency standards themselves have been a powerful water conservation mechanism on their own. Appliances such as clothes and dish washers gaining much of their energy efficiency by using considerably less water than the appliances they replace.

(10) *develop a water reuse policy with incentives for matching the quality of the water to the use;*

The WPC recognizes the benefits of reusing water when possible and of matching the quality of water to appropriate uses. Given that the need to do so has been more pressing elsewhere, CT can benefit from the experiences of others. One local example is UConn's reclaimed water facility. Its operation will provide local experience that can help in developing a well-informed water reuse policy. The WPC's Policy Committee has discussed the need to consider use of Class B waters for non-potable uses and the associated cost issues.

(11) *Meet data collection and analysis needs to provide for data driven water planning and permitting decisions;*

As noted previously, the WPC's Science and Technical Committee is assessing data needs and availability. To the extent that existing data or data collection are found to be inadequate to allow for data-driven water planning and permitting, the WPC will explore options for obtaining necessary data.

As shown in Figure 1, the state's stream flow, ground water and water quality monitoring efforts have relied on funding from a number of sources:

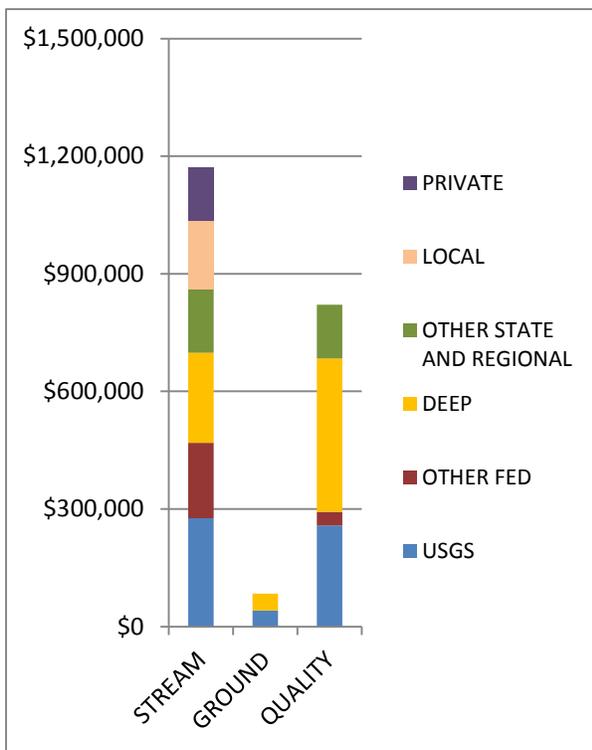


Fig. 1 Funding Sources for USGS Stream Water, Ground Water and Water Quality Monitoring (2014), data from USGS

There are a number of information gaps, particularly regarding ground water, but also for streams in small, undeveloped basins, which is where many poorly-documented diversions occur. Despite these already-existing data deficiencies, recent years' funding reductions have led to discontinuation of data collection at certain CT stream gage and water-quality sites and to reduced groundwater-level data collection.

Budgeting for data collection will be a challenge for the foreseeable future. Balancing data needs against funding availability will be an increasing challenge.

(12) Take into account the ecological, environmental, public health and safety and economic impact that implementation of the state water plan will have on the state;

PA 14-163 specifies elsewhere that state water planning must balance public water supply, economic development, recreation and ecological health. The WPC believes that doing so will inherently take into account the plan's ecological, environmental, public health and safety and economic impacts.

(13) Include short and long-range objectives and strategies to communicate and implement the plan;

Communication is a key part of any public planning and implementation process. The WPC is encouraging public participation in developing the plan and expects the same for the plan's eventual implementation. As previously noted, the WPC is enhancing its communication and outreach capabilities.

(14) Seek to incorporate regional and local plans and programs for water use and management and plans for water and sewerage facilities in the state water plan;

WPC agencies' programs related to water and sewerage facilities already look for input from regional and local plans and programs. The WPC will consider the applicable plans and programs, at every level, in the state water plan.

(15) Promote intra-regional solutions and sharing of water resources;

It is routine in CT to promote intra-regional solutions in addressing water challenges. Nevertheless, the densely developed areas that have powered CT's economic and social life for generations almost universally rely on water from outside their immediate region. Similarly the wastewater generated in one area is treated and returned to locations removed from their sources. The State Water Plan is a key part of the process for identifying opportunities for the sharing of water resources, and efforts to minimize the interbasin transfer of all water

is intended to limit the impact of such water transfers.

(16) Develop and recommend strategies to address climate resiliency including the impact of extreme weather events; and

As previously described, WPC agencies participate in a number of initiatives that are developing and recommending strategies to address climate resiliency and the impact of extreme weather events. While power outages, inland flooding and coastal impacts receive much of the public attention, the various planning initiatives recognize the significance of less visible water resources and waste water concerns. The WPC anticipates that there will be a close relationship between such efforts and the state's water planning efforts.

(17) Identify modifications to laws and regulations that are necessary in order to implement the recommendations of the state water plan.

The WPC will be working with the Steering Committee, the Policy Subcommittee, the Science & Technical Subcommittee, the WPCAG and the New England Interstate Water Pollution Control Commission (NEIWPCC) to develop a comprehensive state water plan. It's recognized that there may be need to identify modifications to laws and regulations to improve the state's water resource management efforts and, eventually, to implement the state water plan.

Attachment A: WPC, WPCAG and Committee Memberships

Water Planning Council Members

- John W. Betkoski III (Council Chairman): PURA Vice Chairman
- Ellen Blaschinski: DPH Branch Chief
- W. David LeVasseur: OPM Director of Municipal Finance Services
- Michael Sullivan: DEEP Deputy Commissioner

Water Planning Council Advisory Group Members

- Margaret Miner (Co-Chair): Rivers Alliance of Connecticut – Environmental River Protection
- Maureen Westbrook (Co-Chair): Connecticut Water Co. – Large Investor-Owned Water Utility
- Gil Bligh: New Britain Water Department – Municipal Water Utility
- Eric Brown: CBIA – Business & Industry
- James Butler: SCCOG – Regional Council of Government
- Karen Burnaska: The Endangered Lands Coalition/CFE – Environmental Land Protection
- Josh Cansler: Southeastern Conn. Water Authority – Regional Water Planning
- Virginia de Lima: USGS and University of Hartford – Academic: stream flow and ecology
- Len DeJong - Pomperaug River Watershed Coalition – Recreation
- John Hudak: South Central CT Regional Water Authority – Regional Water Authority
- David Knauf: Darien – Public Health Director
- Vincent Ringrose: Chair, DEP Fisheries Advisory Council – Fisheries
- Denise Savageau: Town of Greenwich – Municipal
- Robert Silvestri: PSEG, Inc. – Power Generation
- Richard Sobolewski: Office of Consumer Counsel – Consumer Advocate
- Kevin Sullivan – Green Industry
- Henry Talmage: Connecticut Farm Bureau – Agriculture
- Robert Wesneski: Avon Water Co. – Small Investor-Owned Water Utility
- Robert Young: Middletown Water & Sewer Dept. – Wastewater

Water Planning Council Steering Committee Members

- Beth Barton – Day Pitney
- Larry Bingaman – So Central CT RWA
- Chris Clark – Mohegan Tribal Utility
- Virginia DeLima – Chair Technical & Science
- Sam Gold – Lower CT GOG
- Elin Katz – Office of Consumer Counsel
- Dr. Gene Likens
- Andrew Lord
- Joe McGee – Business Council Fairfield
- Margaret Miner – WPCAP Co-Chair – Rivers Alliance of CT
- Robert Moore – Policy Comm Chair
- Susan Stratton Sayer – Professor, Economics – Smith College
- Maureen Westbrook – WPCAG Co-Chair –CT Water
- Dr. Julie Zimmerman – Professor, Env Engineering - Yale

Water Planning Council Policy Committee Members

- Bob Moore – Chair
- Beth Barton – Day Pitney
- Larry Bingaman – So Central CT RWA
- Ellen Blaschinski – DPH
- Elin Katz – Office of Consumer Counsel
- George Logan – Aquarion Water
- Joe McGee – Business Council
- Margaret Miner – WPCAG – Rivers Alliance
- Mike O’Neill – Ag Extension Services
- Dave Radka – CT Water
- Martha Smith – Watershed group
- Bob Young – Middletown Water & Sewer
- Maureen Westbrook – WPCAG – CT Water
- Betsey Wingfield – DEEP

Water Planning Council Science & Technical Committee Members

- Virginia DeLima – Chair
- Len DeJong – Pomperaug
- Mark Decker – Norwich Public Utilities
- Corrine Fitting – DEEP
- Peter Galant – Tighe & Bond
- Sam Gold – Lower CT River Valley COG
- Peter Gorman – Golf Association
- John Hudak – So Central CT RWA
- Jon Morrison – USGS
- Dave Radka – CT Water
- Ryan Tetreault – DPH
- Glenn Warner – CT IWR
- Bob Wesneski – Avon Water
- Bruce Wittchen – OPM