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Source Water Protection Workgroup Final Report to the Water Planning Council August 5, 2025

This report was prepared by the Source Water Protection Workgroup of the Water Planning Council Advisory Workgroup for the Connecticut Water Planning Council to strengthen source water protection initiatives throughout the State Water Plan and support implementation of the same.

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Acronyms

AWWA American Water Works Association

BIL Bilateral Infrastructure Law CGS Connecticut General Statutes

CIRCA Connecticut Institute for Resilience & Climate Adaptation

CLEAR Center for Land Use Education and Research, University of Connecticut

COGs Councils of Governments

CSWC Council on Soil and Water Conservation

CWA Clean Water Act

DEEP Department of Energy and Environmental Protection

DPH Department of Public Health

DWSRF Drinking Water State Revolving Fund GC3 Governor's Council on Climate Change

GIS Geographic Information Systems

IWR Institute for Water Resources, University of Connecticut

IWWA Inland Wetlands and Water Courses Act

NEMO Nonpoint Education for Municipal Officials, University of Connecticut

NGOs Non-Governmental Organizations

NRCS USDA National Resource Conservation Service

OPM Office of Policy and Management
PFAS Per- and Polyfluoroalkyl Substances
POCD Plan of Conservation and Development
PURA Public Utilities Regulatory Authority

SDWA Safe Drinking Water Act

SWPWG Source Water Protection Workgroup
USACE United States Army Corps of Engineers
USDA United States Department of Agriculture

US EPA United States Environmental Protection Agency

USGS United States Geological Survey

WPC Water Planning Council

WPCAG Water Planning Council Advisory Group WUCCs Water Utility Coordinating Committees

Executive Summary

Source Water Protection Workgroup Final Report

The <u>Connecticut Water Planning Council</u> (WPC) is responsible for developing and implementing the <u>State Water Plan</u>, which aims to ensure the long-term safety, sustainability, and resilience of Connecticut's water resources. Source water protection, safeguarding both the quality and quantity of drinking water supplies, is a vital component of this work.

To support the WPC in this effort, the <u>Water Planning Council Advisory Group</u> (WPCAG) convened the Source Water Protection Workgroup (SWPWG) in 2023. Between May 2023 and October 2024, the SWPWG held 11 meetings to assess the current landscape of source water protection in Connecticut, identify gaps and opportunities, and develop actionable recommendations to strengthen protection efforts.

A working draft of this report was circulated for WPCAG review in September 2024. This final version incorporates feedback from WPCAG members and professionals across the water sector.

This report includes actionable recommendations to strengthen interagency coordination, integrate source water protection into state and local planning, increase support for private wells and small systems, and expand public outreach and resiliency efforts.

These recommendations are intended to guide future updates to the State Water Plan and ensure that source water protection remains a core priority for Connecticut's water planning and management efforts.

An inventory of relevant agencies, programs, and statutes is provided in the Appendices.

Gaps and Opportunities for Source Water Protection

8 KEY GAPS

- 1. State Water Plan: A Missed
 Opportunity to Communicate the
 Importance of Source Water Protection
 as a Priority for the State of Connecticut
- 2. Program Authorities and Role Clarity of State Agencies: Clarification of the Complimentary Roles of WPC Members in Source Water Protection
- 3. Absence in Planning and Permitting: Incorporating Source Water Protection into State and Local Planning and Permitting
- 4. Lack of Consistency Across Drinking Water Resources: Increasing Protection for All Surface and Groundwater Sources
- 5. Challenges for Small System
 Operators: Increasing Source Water
 Protection Efforts for Small Drinking
 Water Systems
- 6. Emerging and Chronic Land Use Challenges for Drinking Water Supplies: Ensuring that Source Water Protection is a Priority
- 7. Continued Need for Education and Outreach: Expanding education and outreach on source water protection
- 8. Limited Dedicated Funding:
 Leveraging Available Funding for Source
 Water Protection

3 KEY OPPORTUNITIES

- 1. History of Strong Environmental Regulations and Existing Strong Focus on Planning for Community Resiliency and Nature Based Solutions
- 2. Good Potential to Leveraging Funding Watershed Management Initiatives
- 3. Continue to Build on Existing Data and Support Technology Integration

Recommendations For Source Water Protection

- 1. **Enhance interagency coordination** and collaboration among the WPC Agency members, (DPH, DEEP, PURA, OPM) and other state and federal agencies to strengthen source water protection efforts. [WPC]
- 2. **Include source water protection in the next update of the State Water Plan** to better reference and include it as a priority goal and specifically include actions to achieve this goal. [WPC]
- 3. **Review and clarify the roles of WPC member agencies** in source water protection, starting with DPH and DEEP and the complimentary/collaborative nature of their work. [WPC]
- 4. **Update applicable state-level permitting programs** to include source water protection considerations and pursue statutory or regulatory changes to guide local land use permitting in support of source water protection. [Legislative, DEEP, OPM]
- 5. Create a process to ensure that all State plans involving conservation, development, natural resource management, and climate resilience include source water protection opportunities where applicable. [Legislative, OPM]
- 6. **Establish a clear pathway for municipalities** to incorporate source water protection measures into local plans of conservation and development, land use regulations, and other planning tools in coordination with the COGs, UConn CLEAR, CIRCA, and the CT Council on Soil and Water Conservation. [Legislative, OPM]
- 7. **Convene a workgroup charged with developing** training and technical assistance programs for protecting private wells and small community systems to engage support by local land use decision makers and local health departments. [DPH]
- 8. **Embrace resiliency planning** for public health resilience and water systems and build upon the work that has already been completed. [DEEP, DPH, OPM]
- 9. Continue to build and support the work of the WPCAG's Outreach and Education Workgroup to promote greater awareness and understanding of source water protection. [WPC, WPCAG]
- 10. **Expand the work of the Connecticut Source Water Collaborative** by establishing a public/private partnership or similar model to provide staff and/or funding necessary for the administration of the Collaborative. [DPH]
- 11. **Embrace a 'One Water' strategy** to integrate and coordinate exiting programs and funding opportunities related to water resources, land use, and environmental protection and that leverage funding for multiple benefits and create win-win situations involving source water protection. [DEEP, DPH]

Introduction

Charge to the Source Water Protection Workgroup

Connecticut's ability to provide clean, reliable drinking water depends not only on treatment and infrastructure, but also on the long-term protection of the land and water resources that supply it. Source water protection focuses on preventing contamination and overuse of these critical resources before problems arise—ensuring public health, supporting ecosystem functions, and reducing the cost of water treatment and infrastructure upgrades.

The WPC is charged with reviewing the status of water resources, developing and implementing the State Water Plan to ensure the long-term safety and sustainability of the state's water resources. Specifically, the plan calls for the WPC to

"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". Source water protection, the protection of all drinking water supplies, is an important component of this work.

To assist the WPC with source water protection, the WPCAG formed the SWPWG to develop a white paper that reviews the status of source water protection in Connecticut. Their charge was the following:

The WPCAG Source Water Protection Workgroup will review the status of source water protection in Connecticut looking at the roles of the WPC agencies, federal and state programs, and regulations, the Governor's Council on Climate Change (GC3) report, and ongoing efforts such as the Source Water Collaborative; and identify ways that the WPC and WPCAG can advance source water protection in CT.

What is Source Water Protection?

According to the United States Environmental Protection Agency (US EPA),

"Source water protection includes a wide variety of actions and activities aimed at safeguarding, maintaining, or improving the quality and/or quantity of sources of drinking water and their contributing areas. These activities may depend on the type of source being protected (e.g., groundwater, reservoir, or river)".

In Connecticut, source water protection includes safeguarding the quality and quantity of surface drinking water supplies (such as rivers, lakes, and reservoirs) and groundwater drinking water supplies (such as wells and aquifers) to ensure the long-term health and safety of public and private water supplies. Source water protection encompasses a wide range of measures, including land use planning, watershed management, pollution prevention, and public education.

Identification of Gaps and Opportunities for Increasing Source Water Protection in Connecticut

Gaps in Source Water Protection

1. **State Water Plan:** A Missed Opportunity to Communicate the Importance of Source Water Protection as a Priority for the State of Connecticut

Currently, <u>State Water Plan</u> has limited reference to Source Water Protection. There are only eight specific references to source water protection and all but two of them are direct references to the work that the DPH and water utilities do to comply with federal and state statute. Additionally, although DPH is the lead agency on the Safe Drinking Water Act and overseeing Connecticut's Source Water Protection Program, the protection of our drinking water supplies requires an all-hands-on deck approach to source water protection.

It is noted that, although there are few references to the term source water protection in the document, there are numerous calls for actions and programs that would be categorized as source water protection activities if located in a drinking water supply watershed. The importance of specifically referencing source water protection is that it sets these activities apart for overall water resource management and prioritizes protection of Connecticut's drinking water supplies. Additionally, this creates the opportunity for greater understanding of source water protection needs by all WPC members, staff, and the WPCAG.

It is widely understood that what happens on the land directly impacts the quality and quantity of drinking water supplies. We also know that most land use decisions happen at the local level and on private lands. With over 80% of our source water protection land area in private ownership, we need to ensure that each WPC agency is pro-active in protecting water supplies and that they support and augment the work that DPH and water utilities are doing. This needs to be clearly communicated in an updated State Water Plan.

2. **Program Authorities and Role Clarity of State Agencies:** Clarification of the Complimentary Roles of WPC Members in Source Water Protection

Four state agencies make up the Water Planning Council - DEEP, DPH, PURA, and OPM. Each of them plays a role in the management of Connecticut's water resources including source water protection. OPM facilitates interagency collaboration and develops policy regarding the state's natural resources through mechanisms like the State Conservation and Development Policies Plan, which impacts all state agency actions that impact natural resources and affect land use decisions. OPM also houses the state Geospatial Information Office, which is responsible for the management of GIS data and mapping resources across the state and fostering interagency resource sharing. PURA has oversight of water utility rates. DEEP and DPH play primary roles in the regulation and programmatic components of water resource management throughout the state. There is a strong need to clearly define the complimentary roles of the WPC member agencies in source water protection, starting with

DPH and DEEP, with the intent of creating more collaboration across the two agencies and the Water Planning Council as a whole.

Currently, DPH primarily oversees public water systems, both surface and groundwater, but unfortunately has limited regulatory authority over private land use in watersheds, a key component of source water protection. DPH does keep an inventory of source water protection areas and works closely with water utilities on source water protection. In contrast, DEEP has a larger focus on environmental protection and greater regulatory responsibilities including oversight of land use and water resources. DEEP is also specifically charged in state statutes with aquifer protection. Additionally, DEEP has broad responsibilities for planning and management of natural resources of the state, which are critical components of source water protection.

Currently, DEEP has not utilized its broader regulatory authority to protect drinking water supplies in CT. This is reflected in its permitting program where most permitting requires applicants to indicate if they are in an Aquifer Protection Area but do not require an applicant to indicate if they are in a source water protection area for surface water. This is a missed opportunity for DEEP to support source water protection in CT. Additionally, other state agencies, including the CT Siting Council, use the DEEP application process for their permitting, thereby missing an opportunity for source water protection.

DEEP also plays a significant role in overall planning for our state and was the lead agency for the Governor's Council on Climate Change (GC3). It also oversees Connecticut's Open Space Plan and the CT State Forest Action Plan, both important tools for watershed health and source water protection. It is important to maintain and advance source water protection in all these important planning documents.

Reorganization at DPH has changed the way this department interacts with the WPC. With the WPC establishing a new Watershed Protection Workgroup, and the recommendations for source protection made in this report, it is important to understand the role that DPH, and its source water team will play.

Clarifying the important roles of the four WPC agencies, with an emphasis on expanding collaboration for implementation of the State Water Plan, will enhance the effectiveness of source water protection efforts. A review of the Clean Water Act and how it supports the protection of public drinking water supplies would facilitate discussion. An update on DPH and its reorganization related to drinking water and source water protection would also benefit coordination. The WPC should encourage opportunities for collaboration between all WPC agencies and the WPCAG that benefit source water protection.

3. **Absence in Planning and Permitting:** *Incorporating Source Water Protection into State and Local Planning and Permitting*

Source water protection is intrinsically linked to land use. How the land is used and managed directly impacts the quality and quantity of drinking water supplies. Ensuring that drinking water supplies are protected requires a combination of approaches starting with planning and incorporating regulatory controls where needed. It also involves education and

technical assistance to increase voluntary adoption of best management practices within source water protection areas.

DPH and the larger water utilities have incorporated source water protection into their programs. They have completed inventories and do regular monitoring of drinking water supply watersheds and aquifer protection areas. They are challenged, however, as approximately 80% of source water protection area lands are not owned by the water utilities land is in private ownership. Both the Department of Public Health (DPH) and water utilities have some authority over activities in source water protection areas, but these are limited. Funding and resources are also limited for source water protection. Additionally, there is a perception at the local level that protection of drinking water supplies is being taken care of by state agencies and water suppliers and that local officials do not have a role to play. Changes are clearly needed to support DPH and water utilities.

State and local land use planning documents must explicitly address both the quantity and quality of source water. This includes, but is not limited to, plans of conservation and development, open space plans, forestry management plans, energy plans such as the Comprehensive Energy Plan (Integrated Resource Plan), climate change adaption and resiliency plans including the Governor's Council on Climate Change (GC3), Water Utility Coordinating Committee (WUCC) plans, and PFAS management plans. The WPC and member agencies along with our regional Council of Governments should lead state efforts to incorporate source water protection into appropriate planning documents and should assist local municipalities incorporate source water protection into planning documents.

Local land use regulations, including zoning, inland wetlands and watercourse regulations, and aquifer protection regulations, should be more actively involved in drinking water supply protection with specific language incorporated into permitting reviews to clarify that source water protection includes both ground and surface water. UConn CLEAR and local soil and water conservation districts are in place to support local land use boards with training and technical assistance.

4. Lack of Consistency Across Drinking Water Resources: Increasing Protection for All Surface and Groundwater Sources

Existing policies tend to favor either the protection of surface water or groundwater supplies. Both are equally important, and policies need to be updated to ensure comprehensive protection of all drinking water sources. This includes protection and stewardship of our natural systems including soils, forests, wetlands, and riparian areas, which directly impact drinking water quality and quantity.

A critical gap exists in consistent municipal land use practices for the protection of groundwater particularly in relation to private wells. The State Water Plan calls out the challenges with private wells and it is essential to identify and prioritize specific designated areas to address potential impacts of drought and flooding on them. Additionally, there is a need for state agencies and municipalities to improve communication with sovereign nations to ensure comprehensive groundwater protection.

5. Challenges for Small System Operators: Increasing Source Water Protection Efforts for Small Drinking Water Systems

There is a significant gap in knowledge and practice between small system operators, developers, and the policies set by municipal and state governments. Many small system operators and developers are either unaware of and/or non-compliant with water protection practices and policies. Additionally, municipalities often do not fully understand their roles in water source protection, highlighting the need for targeted training and technical assistance to align practices with existing regulations.

6. Emerging and Chronic Land Use Challenges for Drinking Water Supplies: Ensuring that Source Water Protection is a Priority

The conversion of natural lands to development, and the loss of ecosystem services that they provide is one of the biggest challenges in source water protection. Emerging issues, such as the siting of renewable energy projects (solar and battery storage), large sports fields/artificial turf, removal of forested areas, increase in residential lawn irrigation, and affordable housing, need careful evaluation for their potential impact on water sources. Additionally, the impacts need to be reviewed in the greater context of climate change that is resulting in increased algal blooms, drought, and flooding.

There is a noticeable gap between public practices related to development, e.g., what is supported by state and local officials, and the policies designed to protect water sources. These discrepancies can undermine source water protection efforts. The State Water Plan provides important baseline information on water quantity and the stressors already placed on water resources and reinforces the need to prioritize source water protection in all land use development decision making.

7. Continued Need for Education and Outreach: Expanding education and outreach on source water protection

There is a pressing need for comprehensive education initiatives across all sectors to raise awareness about the importance of source water protection. This includes training for land use planners and decision makers. Training requirements should be established for commissioners and other key stakeholders, potentially through programs like UConn CLEAR, to ensure they are equipped to plan for and address programs such as land protection, community resiliency, and affordable housing within the context of source water protection.

The Source Water Collaborative in Connecticut was established to provide for training and networking for agencies and water utilities involved in source water protection. This is an effective program that has been limited by resource constraints. Increasing the capacity of this networking group would expand support for source water protection programs.

8. Limited Dedicated Funding: Leveraging Available Funding for Source Water Protection

Funding aimed specifically for source water protection is almost non-existent. Although there are federal and state programs that provide funding for water resources, most of it is directed to infrastructure needs. Connecticut must re-evaluate funding priorities within existing programs to include source water protection. Programs to be evaluated include Clean Water Act (CWA), Safe Drinking Water Act (SDWA), CWA State Revolving Fund, and Drinking Water State Revolving Fund (DWSRF). Other federal sources include USDA, US Forest Service, and USGS. Federal funding, however, is uncertain and the state should seek other opportunities for public/private partnerships for investment in drinking water supplies.

Opportunities for linking existing programs to Source Water Protection

There are opportunities to better integrate and coordinate existing programs related to water resources, land use, and environmental protection with source water protection efforts. Identifying these linkages and promoting collaboration among stakeholders can help create a more comprehensive approach to source water protection in Connecticut. The following three opportunities have been identified for better integration and coordination:

1. History of Strong Environmental Regulations and Existing Strong Focus on Planning for Community Resiliency and Nature Based Solutions

Connecticut has long recognized the importance of protecting drinking water supplies. It has some of the most progressive regulations in the country including prohibition on point source discharges from municipal and industrial facilities into water used for drinking water and the Inland Wetlands and Watercourses Act, which is independent from the CWA. Connecticut has also undertaken extensive planning for climate change adaption and resiliency including the 2011 Connecticut Climate Change Preparedness Plan and more recently the work of the Governor's Council on Climate Change (GC3) detailed in the GC3 Phase 1 Report: Near-Term Actions 2021. Additionally, UConn's Connecticut Institute for Resilience & Climate Adaptation (CIRCA)'s effort includes the Drinking Water Vulnerability Assessment and Resilient Plan prepared in 2018. All these plans call for source water protection and underscore the important ecosystem services (nature-based solutions) that working lands and natural lands provide that are critical for ensuring resilient drinking water.

Connecticut continues to move forward to ensure community resiliency. In the 2025 legislative session, the Connecticut General Assembly passed two important bills that build on this commitment to resiliency. HB 5004, the "Climate Change Bill", is now PA 25-125 and includes important provisions for Nature Based Solutions. SB 9, the "Resiliency Bill", is now PA 25-33 and includes important provisions for resiliency planning and incorporating water supply planning into various planning documents including the State Water Plan. The WPC and WPCAG should be actively engaged in the planning required by these two public acts including those related to source water protection.

2. Good Potential to Leveraging Funding Watershed Management Initiatives

Healthy watersheds are an important part of source water protection. There is a need to better coordinate watershed management planning with source water protection efforts. Two major programs in Connecticut are the EPA Section 319 Nonpoint Source Program and the Long Island Sound Partnership (formerly known as the Long Island Sound Study). Both support watershed planning and implementation through grants. Prioritizing public drinking water supply protection within these programs would better leverage funding and be a win-win. The WPC should explore coordinating source water protection efforts across different authorities and stakeholders. Most watershed planning in Connecticut is coordinated by DEEP. Expanding the watershed planning efforts to include DPH and water utilities would better align with State Water Planning goals.

Additionally, USDA Natural Resources Conservation Service (NRCS), in coordination with the CT Council on Soil and Water Conservation and the local conservation districts, provides technical and financial assistance to farmers and forest landowners to implement best management practices. The US Forest Service also provides funds for private landowners.

Most federal funding requires a local match, and Connecticut should explore the creation of match dollars to better leverage federal funds for source water protection.

3. Continue to Build on Existing Data and Support Technology Integration

An essential component of enhancing source water protection efforts is the integration of data and technology, including Geographic Information Systems (GIS), mapping tools, and data-sharing platforms. These technologies allow for more accurate tracking and analysis of water resources, as well as better coordination between State, Federal, Local, and non-governmental initiatives. Connecticut has a robust GIS system and existing data. We should continue to build on this system for source water protection.

Opportunities in Data Integration: There is a need for a unified system that consolidates water quality, land use, and environmental data from various agencies and jurisdictions. This can help identify areas of concern, track the impacts of development projects, and plan for climate change-induced challenges such as droughts or harmful algal blooms.

GIS and Mapping Tools: By utilizing GIS and mapping tools, municipalities, state agencies, and stakeholders can visualize and prioritize vulnerable water source areas, assess risks, and plan mitigation measures. Tools like the Source Water Protection Parcel Prioritization Map and CT Open Data provide essential layers of information about watershed boundaries, surface and groundwater quality, and land use patterns that influence water quality. These tools also support more efficient permitting and zoning decisions by visually aligning proposed developments with potential impacts on water resources.

By capitalizing on these opportunities for better integration and coordination, Connecticut can create a more comprehensive and effective approach to source water protection, ensuring the long-term sustainability of its water resources for public health, economic development, and environmental conservation. There are opportunities to better integrate and coordinate existing programs related to water resources, land use, and environmental protection with source water protection efforts. Identifying these linkages and promoting collaboration among stakeholders can help create a more comprehensive approach to source water protection in Connecticut.

Linking gaps and opportunities to the recommendations and priorities in the State Water Plan

To effectively address source water protection in Connecticut, it is important to link the identified gaps and opportunities to the recommendations and priorities outlined in the State Water Plan. The following five links aim to create a more comprehensive approach to source water protection in the state:

- 1. Pursuant to Connecticut General Statutes (CGS) Section 22a-352. Land Use and Water Quality: The State Water Plan emphasizes the need for better land use practices and low-impact development to protect water quality (Sec. 5.2.3.1 and Sec. 6.8.2). By integrating source water protection goals and strategies into land use planning and zoning regulations, Connecticut can ensure that development decisions minimize potential contamination risks and promote best management practices for stormwater management and nonpoint source pollution control.
- 2. Watershed and Aquifer Protection: The State Water Plan identifies the need for increased watershed and aquifer protection, particularly where incentives are lacking (Sec. 5.3.2.12). By leveraging watershed management initiatives, such as the WUCCs, Connecticut can better coordinate source water protection efforts across different authorities and stakeholders, facilitating collaboration and promoting a watershed-based approach to protection.
- 3. Pursuant to CGS Section 22a-349. Green Infrastructure: The State Water Plan highlights the importance of green infrastructure in managing stormwater and protecting water quality (Sec. 5.2.3.2 and Sec. 6.8.2). By promoting the implementation of green infrastructure projects that align with source water protection goals, Connecticut can improve water quality, reduce the impacts of stormwater runoff, and enhance the resilience of its water resources to climate change.
- 4. Pursuant to CGS Section 22a-354p4. Groundwater Protection: The State Water Plan underscores the need for effective groundwater protection measures (Sec. 5.2.3.1). By enhancing coordination among state and federal agencies, Connecticut can better align their policies, regulations, and programs to support source water protection goals, share critical data and information, and leverage resources for the implementation of effective protection and restoration projects targeting groundwater resources.
- 5. Public Water Supply Lands: The State Water Plan recognizes the importance of protecting public water supply lands (Sec. 5.2.3.1). By supporting the acquisition and preservation of critical lands in public drinking water supply watersheds, Connecticut can ensure long-term protection of source water quality and quantity. This can be achieved through collaboration among water utilities, municipalities, land trusts, and other

stakeholders, as well as the strategic use of funding sources, such as the Drinking Water State Revolving Fund and federal grants.

By addressing these linkages and integrating source water protection efforts with the recommendations and priorities in the State Water Plan, Connecticut can create a more comprehensive and effective approach to protecting its vital water resources for current and future generations.

Recommendations For Source Water Protection

Upon reviewing ongoing source water protection efforts in Connecticut and identifying gaps and opportunities, the following recommendations are proposed for consideration and implementation by the Water Planning Council:

- 1. Enhance interagency coordination and collaboration among the WPC Agency members (DPH, DEEP, PURA, OPM) and other state and federal agencies to strengthen source water protection efforts.
- 2. Include source water protection as a priority goal in the next update of the State Water Plan and identify specific actions to achieve this goal. (WPC). Actions may include but are not limited to recommendations on state agency coordination, partnerships with federal agencies and academic institutions, funding opportunities, and policy changes. The plan should reinforce the need for source water protection efforts to be a priority as a collaborative effort across all agencies.
- 3. Review and clarify the roles of WPC member agencies in source water protection, starting with DPH and DEEP and the complimentary/collaborative nature of their work. Provide WPC and WPCAG with pertinent information on divisions within each department that support implementation of the State Water Plan and source water protection.
- 4. Update all state land-use and development related permits to include source water protection in the review and decision-making process. Specifically, all DEEP permit applications, in keeping with the intent of the Clean Water Act, should expand from asking if the activity is in an Aquifer Protection Area to asking if the proposed activity is in a source water protection area. This would include drinking water supply watersheds and aquifer protection areas. The applicant could also be required to notify both DPH and the water utility about the application so that they could comment. The CT Siting Council should similarly amend their process.
- 5. Create a process to ensure that all State plans involving conservation and/or development, the protection and management of natural resources, and/or resilience to climate change include source water protection opportunities where applicable.
- 6. Establish a clear path to facilitate the incorporation, by municipalities, of source water protection measures into local plans of conservation and development, land

- use regulations, and other planning tools in coordination with the COGs, UConn CLEAR, CIRCA, and the CT Council on Soil and Water Conservation.
- 7. Convene a workgroup charged with developing a training and technical assistance program for protecting private wells and small community systems to engage support by local land use decision makers and local health departments/districts.
- 8. Embrace resiliency planning and build on the work that has already been completed. Review State land use development policies to develop a balanced approach that ensure safe and abundant drinking water supplies are maintained for long term sustainability and resiliency.
- 9. Continue to build and support the work of the WPCAG's Outreach and Education Workgroup to promote greater awareness and understanding of source water protection. The workgroup should develop targeted outreach and educational materials, create a comprehensive communication strategy, and provide training sessions or workshops tailored to the needs of various stakeholder groups, including local government officials, water utilities, landowners, and the general public. Encourage each WPC to participate in this workgroup.
- 10. Expand the work of the Connecticut Source Water Collaborative by establishing a public/private partnership or similar model to provide staff and/or funding necessary for the administration of the Collaborative. This may include mechanisms for holding regular meetings and programs, networking and technical transfer of information, program support, monitoring of progress and/or creating an online platform where stakeholders can share updates on their activities and accomplishments.
- 11. Embrace a 'One Water' strategy to integrate and coordinate existing programs and funding opportunities related to water resources, land use, and environmental protection and that leverage funding for multiple benefits and create win-win situations involving source water protection. 'One Water' is the recognition that all waters are connected and part of larger hydrologic system. Although we often refer to surface water and groundwater, fresh and marina water separately, it is important to recognize their interconnection. Additionally, utilities managing water resources are also often in silos e.g. stormwater, wastewater, and drinking water. One Water encourages integration of programs across the landscape to better leverage funding and resources and to take a wholistic approach to water resource management. Start with looking at existing programs including EPA's 319 Nonpoint Source Program and the Long Island Sound Partnership Program.

Appendices

Appendix A: Overview of Existing Source Water Protection Legislation

Federal Safe Drinking Water Act and Clean Water Act – Title 42 of the United States Code (USC) § 300f, and 33 USC § 1251, respectively and both codified in Code of Federal Regulations (CFR) at 40

The federal <u>Safe Drinking Water Act</u> (SDWA) and the <u>Clean Water Act</u> (CWA) are two key pieces of federal legislation that govern the quality of drinking water and the protection of water resources in the United States. The SDWA, enacted in 1974 and amended in 1996 to include source water protection, focuses on the quality of water provided by public water systems. It sets national health-based standards for drinking water contaminants and requires water suppliers to monitor and report on water quality. While the SDWA focuses on the end product, drinking water, the CWA focuses on the broader protection of water resources. The CWA, enacted in 1972, aims to restore and maintain the chemical, physical, and biological integrity of the nation's waters by regulating the discharge of pollutants into water bodies, providing funding for various water quality programs, and setting water quality standards.

State Aquifer Protection Act - CGS § 22a-354g

The Connecticut Aquifer Protection Act aims to protect the quality and quantity of groundwater in the state by establishing regulatory programs for land use within designated Aquifer Protection Areas (APAs). APAs are defined as stratified drift wells that serve 1,000 or more customers. These areas are critical for supplying drinking water to public water systems and are subject to specific land use restrictions to minimize contamination risks. The Connecticut Department of Energy and Environmental Protection (DEEP) launched the <u>Aquifer Protection Area Program</u> as required by the Aquifer Protection Act. This comprehensive program involves adopting and implementing regulations and land use controls at local and state levels, regulating and permitting facilities, and ensuring compliance with best management practices to prevent contamination and maintain the quality and quantity of groundwater resources.

Water Supply Planning and Department of Public Health Authority

Connecticut General Statutes (CGS) <u>Section 25-32b</u> and <u>Section 25-32d</u> require public water supply companies that serve over 1000 people to develop long term water supply plans, which include assessments of the quantity and quality of water resources, as well as contingency plans for emergencies. CGS <u>Section 25-32</u> recognizes the Department of Public Health (DPH)'s authority to establish regulations, permits, standards, and guidelines that water companies must adhere to. These regulations are designed to ensure that water supplies are properly treated, tested, and distributed to meet quality and safety standards.

Water Rights and Usage

<u>CGS Section 25-42</u> outlines the legal authority of towns, cities, or corporations to acquire and use lands, springs, streams, ponds, or rights related to them for the purpose of supplying clean

water to the public. This enables water utilities to secure land within source water protection areas and implement land management practices that protect water resources.

Water Utility Land Acquisition and Eminent Domain

In certain cases, water utilities in Connecticut are granted the authority under <u>CGS Section 25-37a</u> to use eminent domain as a tool for acquiring land essential for protecting and preserving water resources. Eminent domain is the power of the government or its delegated entity to take private property for public use, with just compensation provided to the property owner. This allows water utilities to obtain land within source water protection areas that might otherwise be at risk for development or contamination. The use of eminent domain, coupled with responsible land management practices, can contribute significantly to the long-term protection of the quality and availability of Connecticut's water resources.

Private Wells

Private wells are subject to state and local regulations that govern their construction, maintenance, and water quality testing by the Regulations of Connecticut State Agencies (RCSA) Sections 19-13-B101 through 19-13-B102 and CGS Sections 19a-36 through 19a-37. While the Safe Drinking Water Act does not apply to private wells, the DEEP and DPH have taken proactive measures by establishing the Potable Water Program and the Private Wells Program, respectively, to address this gap. DEEP's program compiles a comprehensive list of resources provided by DEEP, DPH, the Connecticut Department of Consumer Protection, and the U.S. Environmental Protection Agency (EPA) aimed at assisting private well owners in protecting their water resources and maintaining the quality of their drinking water. The program offered by DPH provides private well owners with pertinent information on private well testing, laws, and regulations, and well drilling.

Land Use Regulations

The <u>CGS Section 8-2</u>, <u>CGS Section 8-7d</u> and <u>CGS Section 8-23</u> play a crucial role in shaping land use patterns and development within municipalities. These statutes are designed to protect existing and potential source water areas by implementing appropriate planning and zoning measures, which can safeguard water sources from pollution, establish protection of critical areas such as riparian buffers and wetlands, and limit the density and types of development permitted, as well as incorporating best management practices to reduce the risk of contamination.

Inland Wetlands and Watercourses Act

The Inland Wetlands and Watercourses Act (IWWA), <u>CGS Section 22a-37</u>, provides a framework for the regulation of activities that may impact the state's wetlands and watercourses, which are vital for maintaining water quality and ecosystem health. Each of the 169 municipalities in Connecticut have local conservation commissions which are responsible for enforcing these regulations and ensuring that any proposed activities within regulated areas are consistent with the protection of water resources.

The preamble in the IWWA states "It is, therefore, the purpose of sections 22a-36 to 22a-45, inclusive, to protect the citizens of the state by making provisions for the protection, preservation, maintenance and use of the inland wetlands and watercourses by minimizing their disturbance and pollution; maintaining and improving water quality in accordance with the highest standards set by federal, state or local authority; preventing damage from erosion, turbidity or siltation; preventing loss of fish and other beneficial aquatic organisms, wildlife and vegetation and the destruction of the natural habitats thereof; deterring and inhibiting the danger of flood and pollution; protecting the quality of wetlands and watercourses for their conservation, economic, aesthetic, recreational and other public and private uses and values; and protecting the state's potable fresh water supplies from the dangers of drought, overdraft, pollution, misuse and mismanagement..."

Erosion and Sediment Control Act

The Erosion and Sediment Control Act, CGS Section 22a-325 through Section 22a-329, was enacted in 1985 to address land development practices that were causing severe erosion and resulting in excess sedimentation of wetlands and watercourses. Rapid changes in land use, including clear cutting, construction projects, and other land disturbances such as soil compaction and impact water movement resulting in erosion and sedimentation with long term consequences. Through collaboration with DEEP and the CT Council on Soil and Water Conservation, Connecticut's soil and water conservation districts, USDA Natural Resources Conservation Services, and municipal partners, guidelines for soil erosion and sediment control were developed. The Connecticut Guidelines for Soil Erosion and Sediment Control was updated in 2024 and establishes minimum standards for controlling soil erosion and sedimentation and maintaining soil health. The guideline establishes minimum standards for controlling erosion and sedimentation, which can have significant impacts on water quality if not responsibly managed.

Municipal Separate Storm Sewer System

The Municipal Separate Storm Sewer System (MS4) General Permit authorized by <u>CGS Section 22a-430</u> is a state-level regulation that governs stormwater management in urbanized areas. The MS4 program aims to reduce the discharge of pollutants into water bodies and protect water quality by requiring municipalities to develop and implement comprehensive stormwater management programs. These programs include public education, construction site runoff controls, and post-construction stormwater management practices.

Appendix B: Roles and Responsibilities in Source Water Protection in Connecticut

Connecticut Water Planning Council (WPC)

Under <u>Public Act 01-177</u>, the Water Planning Council (WPC) is responsible for overseeing and coordinating water resource management in Connecticut. The WPC is composed of four agencies: <u>The Department of Public Health (DPH)</u>, <u>Department of Energy and Environmental Protection (DEEP)</u>, <u>Public Utilities Regulatory Authority (PURA)</u>, and <u>Office of Policy & Management (OPM)</u>. The <u>Water Planning Council Advisory Group (WPCAG)</u> supports the WPC by providing technical advice and representing various stakeholder interests. The WPCAG is composed of members from water utilities, environmental groups, and other relevant sectors, ensuring a balanced approach to water resource management and source water protection.

Department of Public Health (DPH)

DPH takes the lead role in source water protection in Connecticut. As the primary agency responsible for public drinking water supplies, DPH enforces federal and state regulations, such as the Safe Drinking Water Act, conducts Source Water Assessments, and collaborates with other agencies and stakeholders to maintain and improve source water protection measures. In addition to its regulatory duties, DPH offers technical assistance, guidance, and resources to public water systems and municipalities, enabling the implementation of effective source water protection strategies.

Department of Energy and Environmental Protection (DEEP)

DEEP plays a vital role in source water protection by regulating and enforcing water quality standards under the Clean Water Act, overseeing the Aquifer Protection Program, and managing the State's Inland Wetlands and Watercourses. DEEP also implements and manages the MS4 Stormwater Program, which aims to reduce pollution from stormwater entering municipal storm sewer systems. Additionally, DEEP collaborates with other state and federal agencies and nongovernmental organizations to protect and restore Connecticut's watersheds and drinking water resources. DEEP's Open Space and Watershed Land Acquisition Grant Program support the protection of source water by providing financial assistance to municipalities and non-profit land conservation organizations to acquire land for open space, and to water companies to acquire land to be classified as Class I or Class II water supply property. The Connecticut Forest Action Plan and Connecticut's Comprehensive Open Space Acquisition Plan (Green Plan) both recognize the important role of land protection and stewardship in protecting drinking water supplies. These efforts contribute to a comprehensive and integrated approach to source water protection, with DEEP working closely with other WPC members and stakeholders to address water quality and quantity challenges.

Public Utilities Regulatory Authority (PURA)

PURA oversees the rates and services of Connecticut's investor-owned utilities, including water utilities, ensuring safe, reliable, and affordable services. They play a critical role in supervising

the financial aspects of water utility infrastructure investments and ensuring that these investments promote long-term protection and sustainability of water resources. PURA also collaborates with other agencies, such as DPH and DEEP, to ensure that water utilities adhere to regulatory requirements and implement best management practices for source water protection.

Office of Policy and Management (OPM)

OPM plays a key role in source water protection in Connecticut by coordinating state agency policies and programs related to land use, conservation, and water resources management. OPM also plays a key role in intergovernmental coordination, particularly with the nine Councils of Government. As a member of the Water Planning Council, OPM collaborates with other state agencies to develop and implement strategies for source water protection. This includes aligning state policies and funding decisions with the goals of the State Water Plan and ensuring that state and regional planning processes, such as the State Conservation and Development Policies Plan prioritize source water protection. Furthermore, OPM works with other agencies and stakeholders to identify and pursue funding opportunities that can support source water protection initiatives at the state and local levels.

Other State and Regional Agencies

Water Utility Coordinating Committees (WUCCs)

The Water Utility Coordinating Committees (WUCCs) play a significant role in source water protection in Connecticut. Established under Connecticut's water supply planning statute Pursuant to Connecticut General Statutes (CGS) Section 25-33c, WUCCs are responsible for coordinating the planning and management of water resources and infrastructure within their respective regions. Their primary objective is to ensure that safe and sufficient public water supplies are available to meet present and future demands, while protecting water quality and quantity within their authorities. To achieve this, WUCCs work closely with water utilities, municipal and regional planning agencies, local health districts, and other stakeholders to develop comprehensive water supply plans that address source water protection, water conservation, and infrastructure improvements.

Additionally, WUCCs serve as a forum for communication and collaboration among water utilities, regulators, and stakeholders, promoting best practices and innovative solutions for source water protection. This collaborative approach is critical to addressing the complex challenges posed by land use, climate change, and other factors that affect the quality and availability of drinking water supplies. By fostering partnerships and facilitating information exchange, WUCCs play a pivotal role in enhancing source water protection efforts throughout Connecticut.

State of Connecticut Local Health Districts

<u>Connecticut Local Health Districts</u> play a crucial role in source water protection at the local level. They are responsible for enforcing the regulations set by the Connecticut Department of Public Health (DPH) and the Environmental Protection Agency (EPA) to ensure safe drinking water quality. Health districts work closely with local water utilities, municipal governments,

and other stakeholders to assess potential risks to source water and develop strategies to address these risks. This may include reviewing land use proposals, conducting inspections of potential contamination sources, providing technical assistance on best management practices, and collaborating with other agencies and organizations on outreach and education efforts to raise awareness about the importance of protecting source water. Furthermore, local health districts may be involved in the permitting and oversight of private wells and septic system installations, ensuring that they meet established standards and do not pose a threat to public drinking water supplies.

Connecticut Siting Council

The <u>Connecticut Siting Council</u> (CSC) is a state agency responsible for evaluating and approving applications for the siting of certain energy, telecommunication, and hazardous waste facilities. In the context of source water protection, the CSC plays a role in evaluating the potential impacts of proposed facilities on public drinking water supplies and watersheds. The Council considers factors such as the proximity of proposed facilities to source water protection areas, potential risks to water quality, and the implementation of best management practices to minimize any adverse effects. The CSC coordinates with other state agencies, including DEEP and DPH, to ensure that source water protection concerns are adequately addressed in the siting process.

Regional Councils of Government

Regional Councils of Government (COGs) are regional planning organizations that work with municipalities to address land use, transportation, and environmental issues, including source water protection. There are nine COGs in Connecticut, each representing a different geographic region of the state. COGs often provide technical assistance, data analysis, and planning services to their member municipalities, including support for water resource management and source water protection efforts. In addition to serving as a valuable resource for local governments, COGs can also facilitate regional coordination and collaboration among water utilities, NGOs, and other stakeholders.

Connecticut Institute of Water Resources

The Connecticut Institute of Water Resources (IWR) at the University of Connecticut is a statewide program that promotes the sustainable use and management of water resources in Connecticut. The IWR is part of a national network of water resources research and extension programs established by the United States Department of Agriculture (USDA). The IWR serves as a hub for water-related research, outreach, and education, providing technical assistance and training to communities, businesses, and organizations across the state. The IWR's programs focus on a range of water-related issues, including water quality, watershed management, aquifer protection, and climate resilience. The IWR also coordinates the Connecticut portion of the National Institutes for Water Resources (NIWR) program, which funds research and education projects related to water resources at universities across the country.

The IWR has the potential to play a significant role in advancing source water protection in Connecticut, particularly through its research and outreach efforts. The IWR can help to identify and address gaps in knowledge related to source water protection and develop innovative solutions to protect and manage water resources in the state. Additionally, the IWR can serve as

a bridge between the WPC and other organizations and agencies involved in water resource management and research, facilitating communication and collaboration on source water protection initiatives. Overall, the IWR can contribute to the WPC's efforts to advance source water protection in Connecticut by providing technical expertise, research support, and educational resources to stakeholders across the state.

University of Connecticut's Center for Land Use Education and Research – NEMO & CLEAR

The Nonpoint Education for Municipal Officials (NEMO) program is a partnership between the UConn Center for Land Use Education and Research (CLEAR) and the Connecticut Department of Energy and Environmental Protection (DEEP). NEMO provides educational resources and training to municipal officials, land use commissioners, and others involved in land use decision-making. NEMO's focus is on promoting sustainable land use practices that protect natural resources, including water resources.

<u>CLEAR</u> is a unit of the University of Connecticut that provides science-based education, training, and assistance to land use decision-makers, natural resource managers, and other stakeholders. CLEAR's work includes research on land use and water resource issues, development of technical tools and resources, and training and outreach to promote sustainable land use practices.

NEMO and CLEAR's work is directly relevant to source water protection in Connecticut, as their efforts promote land use practices that can help to protect water resources and reduce the impacts of development on water quality and quantity. The WPCAG should consider how NEMO and CLEAR's resources and expertise can be leveraged to support source water protection efforts in the state.)

Connecticut Council on Soil and Water Conservation

The Connecticut Council on Soil and Water Conservation (CCSWC) is a state agency tasked with promoting the conservation and management of Connecticut's soil and water resources. The Council provides technical assistance, training, and educational resources to municipalities, landowners, and other stakeholders to support the implementation of best management practices for soil and water conservation. It also oversees the conservation districts throughout the state, which are local organizations that work with landowners and communities to address natural resource concerns. In terms of source water protection, CCSWC plays a critical role in promoting the soil and watershed health across all landscapes and supporting implementation of best management practices including on urban and agricultural lands, which can help to reduce nutrient and sediment runoff and protect water quality. The Council works closely with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) and other federal partners to provide financial and technical assistance to landowners for the implementation of conservation practices and collaborates with other state agencies such as DEEP and DPH to support source water protection initiatives.

Connecticut Conservation Districts

Connecticut Conservation Districts are set up under state statute to provide technical assistance and education to farmers, landowners and municipalities on natural resource management, including soil health, watershed management, inland wetlands protection, stormwater management and nonpoint source pollution control, farmland and open space protection, and land stewardship. In addition to their technical assistance and education efforts, conservation districts also play a role in implementing state and federal programs related to source water protection. Conservation districts also work closely with federal agencies such as the USDA Natural Resources Conservation Service to implement best management practices on working and natural lands. They also work closely with CT DEEP on the EPA 319 Nonpoint Source Pollution Program and with the Long Island Sound Study program. Given their unique position as local organizations with strong ties to landowners and municipalities, conservation districts are well-positioned to play a key role in advancing source water protection efforts in Connecticut. The Connecticut Association of Conservation serves as a member of the WPCAG.

Federal Agencies

Federal agencies such as the <u>United States Environmental Protection Agency (EPA)</u>, the <u>United States Army Corps of Engineers (USACE)</u> and the <u>United States Department of Agriculture (USDA)</u> play a significant role in source water protection. They offer funding, technical assistance, and regulatory oversight for various aspects of source water protection, helping to ensure compliance with federal standards and the implementation of effective protection strategies.

Regional Commissions

NEIWPCC

NEIWPCC is a regional commission that helps states of the Northeast preserve and advance water quality. The <u>Source Water Protection (SWP) Workgroup</u> brings together state and EPA staff to focus on improving source water protection measures throughout the region. This workgroup provides an opportunity for states to compare strategies and collaborate on source water protection strategies and provide feedback to the EPA on their initiatives. The workgroup published the <u>Protecting Drinking Water sources in Your Community – Tools for Municipal Officials</u>.

Connecticut Rural Water and Wastewater Association

The <u>Connecticut Rural Water and Wastewater Association</u> is a non-profit organization that supports and advocates for small and rural water and wastewater systems throughout the state of Connecticut. Its primary mission is to assist rural communities, small towns, and non-urban areas in maintaining and improving their water and wastewater infrastructure. Rural water and wastewater systems often face unique challenges, such as limited financial resources, aging infrastructure, and a small customer base. The Connecticut Rural Water and Wastewater Association helps address these challenges by offering practical support and ensuring that rural communities have access to safe, reliable drinking water and effective wastewater treatment systems.

Water Utilities and Representative Organizations

Connecticut Section of the American Water Works Association's Source Water Protection Committee

The Connecticut Section of the American Water Works Association's (CT AWWA) <u>Source Water Protection Committee</u> (SWPC) is comprised of water supply professionals from Connecticut water utilities, state regulatory agencies, members of private environmental consulting companies and guests dedicated to promoting source water protection in Connecticut. They offer educational resources, training, and networking opportunities that support the implementation of best practices in source water protection and foster collaboration among stakeholders.

The responsibility of the SWPC is to promote protection of groundwater and surface water sources of public drinking water by providing a forum through which members can:

- 1. Exchange information about common concerns, regulatory and technical developments, and compliance issues.
- 2. Develop new or updated standard procedures and guidelines for source protection activities.
- 3. Work cooperatively to correct pollution problems.
- 4. Develop recommendations for new legislation or amendments to existing legislation and regulations.
- 5. Assist regulatory agencies with the development or improvement of regulations, procedures, and policies.

The SWPC, which generally meets every other month of the year, works to promote the protection of sources of public drinking water in Connecticut and ensures that land use activities within public water supply watersheds and aquifers are in accordance with the Public Health Code, the Connecticut Aquifer Protection Area Statutes and Regulations, and comply with appropriate best management practices.

To promote the protection of our states' groundwater and surface water sources, the Committee provides the opportunity for its members to exchange information about common concerns, work cooperatively to correct pollution problems, and review regulatory and technical developments and compliance issues. The Committee also works to develop new standard procedures and guidelines for source protection activities and to assist regulatory agencies with the development or improvement of regulations, procedures, and policies that affect the State's drinking water providers.

Active members of the SWPC currently represent several Connecticut water utilities including the Aquarion Water Company, the Connecticut Water Company, the City of Meriden, South Norwalk Electric and Water, the Metropolitan District Commission, and the Regional Water Authority. Consultants that actively attend and contribute to the committee's efforts include the ESS Group, GEI Consultants, Environmental Partners Group and WSP. With active representation from both the Connecticut Department of Public Health and the Connecticut

Department of Energy and Environmental Protection, the SWPC is truly a dynamic group that addresses important source protection issues on behalf of all the state's drinking water providers.

Municipalities

Municipalities play a crucial role in source water protection through land use planning, zoning, and enforcement of local regulations. Local governments can proactively protect water resources by incorporating source water protection measures into comprehensive plans, zoning ordinances, and other planning tools, ensuring the preservation of water quality and the prevention of contamination.

Non-Governmental Organizations

Various Non-Governmental Organizations (NGOs) in Connecticut focus on water resources, land conservation, and environmental protection. These organizations play a vital role in advocating for source water protection, raising public awareness, and providing support for local and regional efforts. They contribute valuable expertise and resources to help safeguard Connecticut's water resources.

Connecticut Source Water Collaborative

The <u>Connecticut Source Water Collaborative</u> is a partnership of state agencies, water utilities, NGOs, and other stakeholders committed to protecting and preserving the state's source water resources. The collaborative works to coordinate efforts, share information, and leverage resources to enhance source water protection throughout Connecticut. This collaboration fosters a unified approach to addressing source water challenges and promoting sustainable water management practices.

Appendix C: Review of Major State Reports and Initiatives for Source Water Protection

In this section, we provide an overview of key state reports and initiatives that are pertinent to source water protection in Connecticut. These reports and initiatives were selected based on their relevance to the protection and management of water resources, the scope of their recommendations, and their potential impact on policy and decision-making. For each report or initiative, we offer a summary, highlight its implications for source water protection, and identify opportunities for further action or improvement.

Connecticut State Water Plan

The <u>Connecticut State Water Plan</u> offers a comprehensive framework for managing and protecting the state's water resources, including source water protection. The plan outlines policy, planning, and management strategies to ensure the long-term sustainability of Connecticut's water supplies. The implications for source water protection include increased awareness, coordination among stakeholders, and the implementation of recommended strategies to safeguard water resources.

Water Utility Coordinating Committee Reports

The Department of Public Health convenes the Water Utility Coordinating Committees (WUCCs) for each water supply management area to implement the planning processes established by Connecticut General Statutes Section 25-33e and Sections 25-33g and 25-33h, and to maximize efficient and effective development of the state's public water supply systems to promote public health, safety and welfare. WUCC reports assess regional water supply issues and identify opportunities for coordination among water utilities, municipalities, and state agencies to address these challenges, including source water protection. By fostering collaboration and communication, WUCC reports contribute to more effective source water protection initiatives across the state.

Drinking Water Vulnerability Assessment and Resilience Plan

The <u>Drinking Water Vulnerability Assessment and Resilience Plan</u>, prepared for the Department of Public Health in 2018, evaluates the vulnerability of Connecticut's public water supplies to various threats, including climate change, contamination, and infrastructure failure. The plan proposes strategies to enhance the resilience of drinking water systems and protect source water resources. The implications for source water protection include improved preparedness and risk reduction in the face of potential threats.

Integrated Water Resources Management

The Department of Energy and Environmental Protection's <u>Integrated Water Resources</u> <u>Management</u> presents a roadmap for the sustainable management of Connecticut's water resources, including the restoration and protection of source water areas. This novel approach identifies key issues, goals, and recommendations related to water quality, water quantity, and

watershed management. These recommendations provide guidance for source water protection efforts and highlight areas for improvement.

Governor's Council on Climate Change Report

The <u>Governor's Council on Climate Change (GC3) Policy Recommendation Report</u> examines the potential impacts of climate change on Connecticut's water resources and identifies strategies for enhancing the resilience of the state's water supplies, including source water protection measures. By considering the effects of climate change, the report underscores the importance of adaptive management and proactive measures in source water protection.

Municipal Plans of Conservation & Development

Connecticut General Statutes Section 8-23 requires each municipality to prepare or amend and adopt a <u>Plan of Conservation and Development (POCD)</u>. The Office of Policy and Management maintains the official Inventory of Municipal POCDs. POCDs guide land use planning and development within municipalities. These plans can integrate source water protection measures and strategies to help protect water resources at the local level, emphasizing the role of local governments in safeguarding water resources.

Comprehensive Open Space Acquisition Strategy (Green Plan)

The Connecticut Department of Energy and Environmental Protection prepares the Connecticut Comprehensive Open Space Acquisition Plan which identifies priority areas for land conservation and provides guidance and funding for the acquisition and management of open space lands through the Open Space and Watershed Land Acquisition Grant Program, including those crucial for source water protection. By prioritizing land conservation in sensitive areas, the plan contributes to the preservation of critical water resources. This plan is currently being updated and is expected to have a new draft in 2025.

Source Water Assessment Program Reports

The <u>Source Water Assessment Program (SWAP)</u> is a federally mandated initiative that evaluates the vulnerability of public water supplies to potential contamination. DPH handles this requirement for Connecticut. SWAP reports provide valuable information for water utilities, local governments, and the public to better understand and protect source water areas. The reports inform decision-makers and promote increased awareness and action regarding source water protection.

High Quality Drinking Water Sources List

The Connecticut Department of Public Health has produced a <u>High Quality Source List</u> that designates current and future potential public water supply sources statewide that require protection to ensure that the highest quality source waters are available for human consumption. The designated list was required by Public Act (PA) 11-242, Section 59, codified as law in Connecticut General Statutes Section 25-33q.

Connecticut Forest Action Plan

The <u>Connecticut Forest Action Plan</u> encourages stakeholders to enhance and safeguard the state's forest resources for future generations. It was developed in collaboration with various partners. The plan identifies key concerns, values, and requirements related to forests. Through an analysis of current forest conditions and trends, it outlines strategies and actionable steps to shape the future of Connecticut's wooded areas.

Connecticut Wildlife Action Plan

The Connecticut Department of Energy and Environmental Protection completed revisions and update to the <u>Connecticut's Wildlife Action Plan</u> for the decade 2015-2025 to establish both a state and national framework for proactively conserving our fish and wildlife, including their habitats.