

Developing a Drinking Water Quality Management Plan for Groton Utilities

A Workshop Series Sponsored by the U.S. Environmental Protection Agency, in cooperation with the Connecticut State Department of Public Health and Groton Utilities

Draft Consolidated Summary

Prepared by The Cadmus Group, Inc.

October 6, 2007

In 2006 and 2007, the U.S. Environmental Protection Agency (EPA) sponsored a series of workshops on the development of a Drinking Water Quality Management Plan for Groton Utilities under Contract Number 68-C-02-069. The Cadmus Group, Inc. provided a meeting facilitator to work with various Connecticut state agencies, Groton Utilities, local municipal officials and planners, environmental interest groups, and other interested parties in the formulation of the Plan.¹

The purposes of the FY 2006 to 2007 workshop series were to (1) continue developing a process for the formulation of the Plan, and (2) establish subcommittees to take on the conception and implementation of activities to accomplish the various goals and objectives of the Plan. In 2006, workshops were held on April 19, May 18, June 22, and July 20, 2006 at various locations within the Groton Utilities water supply watershed; a summary report of these events was prepared in September 2006. This current summary report focuses on the workshops held on October 5 and November 8, 2006, and January 10, March 20, April 19, June 21, and September 27, 2007.

The **October 5, 2006** workshop focused the formation of the various subcommittees (i.e., communication/education, land information, water information, geographic information system [GIS], and consultant selection). A steering committee comprised of the current active workshop participants would be established to coordinate with the various subcommittees and maintain the momentum to move the Plan forward. It is noted that future meetings would continue to be open to the public to ensure the transparency of the Plan development process.

To facilitate future discussion and addition of new workshop members, a historical document would be posted to the Groton Utilities public website. In addition, maps of stormwater areas were developed for posting. A Groton Utilities reservoir and watershed map would also be generated to show buildup patterns.

Unfortunately, Connecticut's legislature was unable to procure funding to support the development of the Plan during the 2007 budget session. Therefore, Connecticut Department of Public Health explored funding opportunities, such as the Federal Clean Water Act 319 Nonpoint Source Management Grant program, to fund development of the Plan. A number of workshop members expressed concern regarding the chance of obtaining 319 funding and other Clean Water Act related funding (e.g., National Watershed Grant). On the whole, the prognosis of

¹ Cadmus facilitated all of the workshops described in this report, except for those held on November 8, 2006 and March 20, 2007.

receiving funding in 2007 to move forward with the project was not positive. Nevertheless, the workshop participants all believed that the process to formulate the Plan should continue despite a lack of funding. Further refinement of the subcommittee assignments and compositions were worked through the workshop to ensure effective communication among the subcommittees and to identify reasonable workloads for the various subcommittees.

The November 8, 2006 workshop focused on a number of planning issues: (1) the use of water protection overlay zones; (2) regulation of a water resources protection district (WRPD); (3) site construction and post-construction best management practices (BMPs); and (4) the use of a performance bond to fund future maintenance. It was also noted that EPA would continue to support the Plan process by offering facilitation service for three additional workshops.

A number of workshop participants believed that the GIS Subcommittee would be central to much of the data and communication activities and it would be crucial to have active members involved. In addition, it would be ideal if the selected consultant for the project has excellent GIS knowledge and good conflict resolution skills. Furthermore, Connecticut Department of Public Health planned to obtain input from the Council of Governments and the Nonpoint Education for Municipal Officials (NEMO) of the University of Connecticut.

The January 10, 2007 workshop was attended by Lisa Bissani of the Trust for Public Land (TPL). TPL has been actively working on land management and land acquisition issues to protect source water over the past few years. Lisa planned to continue attending the workshop and steering committee meetings to provide input on source water protection strategies.

Participants discussed ways in which Plan Goals 3 “Implement an open and efficient planning process” and 5 “develop a process for plan review and updates,” which are process-oriented, could be accomplished in the near term. (See Attachment 1 for details on these goals.) Some of the workshop participants felt that process guidelines could be used to steer the open planning and plan update process. The workshop participants suggested holding a series of public meetings, including development concerns and other stakeholders in the process, and developing regional regulations and policies as means to accomplish these Goals. In addition, referencing critical source protection areas and stenciling critical areas were viewed as viable activities of the planning process. The workshop participants were directed to provide input in subsequent meetings regarding the information to be shared at the public meetings, along with details on a toolbox to protect source water (e.g., land use regulations, best management practices (BMPs), and land purchase). It was further suggested that these meetings should focus on the entire watershed and be supported by organizations such as Connecticut College, University of Connecticut at Avery Point, and stormwater and wetland organizations.

At the March 20, 2007 workshop, Dr. Mike Dietz of the University of Connecticut NEMO program gave a presentation on the Jordan Cove Urban Watershed Project. The Jordan Cove Urban Watershed Project, a Section 319 National Monitoring Program project, is located in Waterford, Connecticut along the coast of Long Island Sound. The study began in 1995, and was designed to determine water quantity and quality benefits of using pollution prevention BMPs in a residential subdivision. Monitoring took place for 10 years. A series of recommendations from the project are available on the project website (<http://www.cag.uconn.edu/nrme/jordancove/>).

The workshop participants also discussed the consultant selection process and the funding situation. In addition, discussion on regulatory goals process, along with subcommittee discussions, were held during the workshop.

The April 19, 2007 workshop featured presentations by Dr. John Witherspoon, the Chairperson of the Source Water Protection Committee of the American Water Works Association (AWWA), and attorney Tim Bates. Dr. Witherspoon commented that the Groton Utilities Drinking Water Quality Management Plan Program is well ahead of the rest of the nation. He noted that the City of Springfield, Missouri, where he served as Water Director, took seven to eight years to accomplish what Groton Utilities has in only three years. He further pointed out that the composition of the Workshop Committee— with stakeholders, planners, city and State officials, and local municipality personnel – was outstanding and commendable. He also emphasized the importance of gaining consensus among these communities to ensure success. He finally commented that Workshop Committee is a prime candidate for the AWWA Exemplary Source Water Protection Award. In response to questions from the workshop participants, Dr. Witherspoon provided a number of facts on the “Watershed Committee of the Ozarks” (<http://www.watershedcommittee.org/>) that promote various activities to protect Springfield’s drinking water supply sources. The Watershed Committee of the Ozarks was created as a non-profit organization with support from Springfield Utility. The Committee has been able to review and comment on all plans and specifications for development and has been involved in revising local planning and zoning regulations to fit watershed protection needs. On the whole, approximately \$2 million in Clean Water Act Section 319 grants have been provided to the Committee to conduct various projects. The Committee continues to work with other municipalities and communities to build committees to protect water supplies.

Tim Bates provided an overview of the Great Brook Subdivision Project, a proposed 125 acre subdivision along Great Brook, a tributary that feed into the Groton Utilities reservoirs. To protect water quality, the subdivision has a 150-foot no disturbance wetland buffer, along with the implementation of BMPs and land use restrictions. An open discussion on wetland requirements among the workshop participants covered issues on requirements, limitations, land trusts, grants, and land purchases. Some workshop participants expressed concern that BMPs implemented at the Great Brook Subdivision would not be enforceable once the development is in place. Some participants also noted that there are a series of State statutes that require towns to consider drinking water protection in development decisions (e.g., CGS 22a-42f, 802a, and PA 85279). Further discussion on the use of baseline data to identify problems with existing land use was initiated and there were agreements that future and existing land use must both be considered to ensure the success of the Plan.

The Water Information Subcommittee reported that they developed a draft list of water quality monitoring sites. The Communication Subcommittee then reported on their work with Mark Cohen of the Atlantic State Rural Water Association (ASRWA) on Goal 1 “preserve drinking water quality and protect public health” and Goal 5 “develop a process for plan review and updates.” The GIS Subcommittee indicated that they had prepared a spreadsheet of GIS status for surrounding towns and were ready to provide information upon request. The Consultant Procurement Subcommittee reported that they are working with Connecticut Department of Public Health regarding the solicitation.

Dr. Chi Ho Sham then presented the Planning Process Document that was based on the previous and ongoing discussions. The Planning Process Document addresses Goals 3 and 5.

Goal 3 - Implement an open and efficient drinking water protection process

- Objectives 1: Use a responsible and open practice to keep the planning process transparent and equitable
 - Oversight Committee Tasks:
 - Work with Communication Committee to define the process (e.g., involve citizens and stakeholders)
 - Provide examples and models
- Objectives 2: Implement a high quality standard for efficient plan revisions, implementation and fiscal accountability
 - Oversight Committee Tasks:
 - Define quality standards
 - Evaluate efficiency and costs
- Objectives 3: Be responsive to emerging issues and established priorities
 - Oversight Committee Tasks:
 - Develop a chain of command or ladder of responsibility
 - Work with Communication Committee to develop a model for prompt response

Goal 5 – Develop a process for plan review and updates

- Objectives and tasks – to be defined.

Note: A copy of the planning process is included at the end of this consolidated summary.

Connecticut Department of Public Health reported that the U.S. Geological Survey (USGS) may be interested in assisting the development of the Plan – specifically for Goal 1 “preserve drinking water quality and protect public health” and Goal 2 “proactively protect critical watershed areas through land management.” Nevertheless, it would require funding to provide the support of USGS.

One workshop participant suggested creating a Groton Utilities Source Water Protection community award to promote and publicize the program. Groton Utilities replied that they issue a Community Service Award annually, but they would develop parameters for a Source Water Protection Award for local communities.

At the June 21, 2007 workshop, Dave Bjerklie of USGS gave a presentation on water and land resource assessment using the Pomperaug River Project as an example. In response to comments from workshop participants, Dave said he would examine how the land and water resource assessment model could be scaled down to focus on the five reservoirs of Groton Utilities, so it could be used to assess impacts from land use changes to the hydrology and water quality of the receiving waterbodies.

Dr. Sham revisited the planning process document and suggested that the plan be updated on an as-needed basis and possibly on an annual basis. In addition, he suggested that a peer review process be implemented to aid decision-making on the planning process and research

needs. In conclusion, the workshop participant considered the objectives under Goals 3 and 5 were complete because a framework for plan development and update is in place to ensure the Drinking Water Quality Management Plan would be a living document to meet the established vision.

The subcommittees then reported their progress. The Water Information Subcommittee had been very busy and reported that they are in the process of compiling all existing data and identifying future activities. They provided information on the current watershed monitoring program, sampling frequency and procedures, work underway with Connecticut Department of Environmental Protection on streamflow limitations, and a proposed study on nutrient modeling.

The September 27, 2007 workshop focused on the accomplishments by the Groton Utilities Watershed Drinking Water Quality Management Committee and the various subcommittees. Acknowledgements to the various sponsoring organizations including Connecticut Department of Public Health, EPA, state legislature, and other organizations were made. In addition, the group discussed a number of immediate future action items. Connecticut Department of Public Health then shared the good news that the state legislature will provide \$200,000 to Groton Utilities to hire a consultant to support the plan development process. This announcement led to further discussion on the consultant selection process. In addition, the various subcommittees provided reports on ongoing activities. The Water Information Subcommittee is continuing their information compilation efforts. The GIS Subcommittee was dealing with some personnel change and they will be work on an inventory of GIS coverages.

Although it took over a year to secure funding to support the Plan, the funding will greatly accelerate the development process and it is anticipated that significant progress will be made by December 2008. The committee intends to hire a consultant by January 2008. With the excellent ground work laid down by the various subcommittees and the oversight committee, the consultant should be able to pick up a lot of insight and pertinent information to make the Plan a reality by the end of 2008. The Plan will seek active participation of the six towns involved and it will continue to ensure openness to the public and ideas.

Drinking Water Quality Management Plan for Groton Utilities Drinking Water Supply Sources

April 2007 Draft

As of the end of the summer of 2006, a number of goals and objectives were identified by the workshop participants in developing the Drinking Water Quality Management Plan for Groton Utilities' drinking water supply sources. Goals 3 and 5 are specifically on the process of plan development and revisions.

Goal 3 Implement an open and efficient drinking water protection process

- (a) Use a responsible and open practice to keep the planning process transparent and equitable
 1. Define the process (e.g., involve citizens and stakeholders)
 2. Provide examples and models
- (b) Implement a high quality standard for efficient plan development and fiscal accountability
 1. Define quality standards
 2. Evaluate efficiency and costs
- (c) Be responsive to emerging issues and established priorities
 1. Develop a chain of command or ladder of responsibility
 2. Develop a model for prompt response

Goal 5 Develop a process for plan review and updates

- (a) Create objectives and associated tasks
- (b) Implement tasks or make work assignments as appropriate

A working session was conducted on January 10, 2007 during the oversight committee meeting in Groton to develop a process to accomplish goals 3 and 5. A number of suggestions were made during the discussion and these include:

- Holding multiple public meetings at the town level
- Inviting landowners and developers to attend these public meetings to obtain their inputs
- Making sure that the information provided at these public meetings carry the right message
- Involving the press to provide local coverages
- Keeping all stakeholders involved to ensure the plan is community based
- Showing off past success in working with developers, homeowners, and other stakeholders
- Considering the formulation of regionalized regulations
- Addressing cost-sharing issues (between "upstream" and "downstream" communities) upfront
- Assessing the criteria in determining the Critical Source Areas and focusing on the concept of resource protection and not site-specific contamination potentials
- Setting a budget to provide sensitive land or preservation

- Soliciting best practice ideas from stakeholders will make the plan more acceptable and implementable
- Securing a funding source to support the effort

In addition, the oversight committee reviewed the watershed management plan process developed by the Pomperaug River Watershed Coalition (<http://www.pomperaug.org/>). The Coalition developed a process to prepare the Watershed Management Plan (WMP) and this process began with the identification and collection of existing information and ongoing research describing the physical conditions in and concerns about the watershed. When information gaps were noted on understand the hydrology of the watershed and to quantify impacts from withdrawals on streamflows and ecological health, the Coalition collaborated with USGS, state agencies, universities, and watershed professionals to bridge the knowledge and data gaps. As research results became available, in conjunction with other local and regulatory issues and concerns, the Coalition worked with researchers in developing a list of “action items” that takes into account funding, staffing, and community support. These action items are to be evaluated regularly to ensure their relevance and continued effectiveness. The WMP is updated in an iterative process to continue identifying appropriate, cost-effective, and politically desirable management strategies to protect the watershed’s water quality and quantity goals for the present and the future.

On the basis of the discussion during the working session, a proposed Drinking Water Quality Management Plan process has been formulated for review by the oversight committee and further discussion to facilitate the implementation of goals 3 and 5. A graphic depiction of the planning process is presented in Figure 1. The planning process ensures the explicit involvement of citizens and stakeholders through public meetings and readily available information channels (e.g., project-specific website and the press). It also involves highly qualified individuals to oversee the development of high quality work plans associated with action items that take into account fiscal responsibilities. In keeping the plan a “living document,” the process calls upon setting a regular review and update mechanism that is associated with emerging issues and changing conditions.

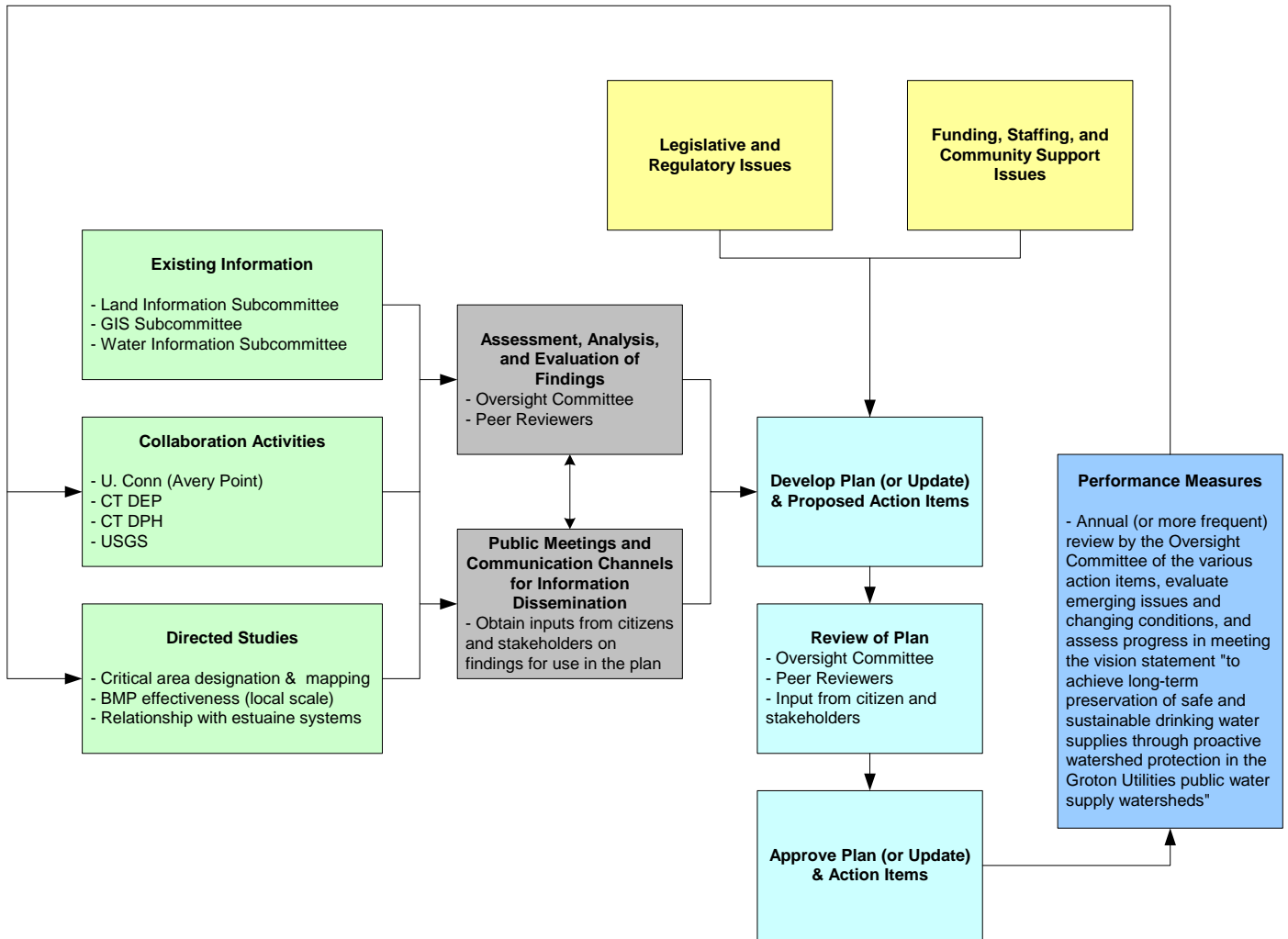


Figure 1. The Drinking Water Quality Management Plan Process – Draft, April 2007