

**AN ACTION PLAN
TO PROTECT MAINE'S DRINKING WATER SOURCES**
Aligning Land Use and Source Water Protection



Report Prepared by

THE TRUST FOR PUBLIC LAND

About This Project¹

Under a grant from the U.S. Environmental Protection Agency (EPA), The Trust for Public Land (TPL) and the Smart Growth Leadership Institute (SGLI), in partnership with the Association of State Drinking Water Administrators (ASDWA) and River Network (RN), have selected several states as partners for a program focused on *Protecting Drinking Water Sources* through alignment of state land use and drinking water programs. Since the program's inception in 2007, the national partners have completed action plans for New Hampshire, Ohio and Maine; have initiated efforts in North Carolina, Oregon, and Utah; and anticipates selecting two more states in 2010.

By working with state program managers, recognized national experts in land use, land conservation, and water quality protection, the project aims to help states work across political and programmatic boundaries to better align planning, economic development, regulation and conservation to protect drinking water sources at the local and watershed levels. Protecting drinking water sources through better land use management requires strong collaboration among state agencies and between all levels of government and concerned stakeholders. Collaboration maximizes the effectiveness of initiatives led by land use planners, water utilities, watershed associations, government officials, conservationists, farmers and foresters.

State programs interact to shape local choices in complicated ways. New data is helping us understand how land use and development choices affect the quality of ground and surface water sources, making it clear that even well-intentioned policies can work at cross-purposes. One program or agency may be trying to reward local source water protection efforts while another is creating incentives for uses incompatible with such efforts. At the same time, new technologies are emerging that allow program managers to readily share important geographic data with colleagues and the public, while newly proven financing and policy strategies are emerging to support government and individual efforts to do the right thing. This program draws on this new knowledge and technology to achieve more effective collaboration between public and private stakeholders and better congruence between various state policies to enhance drinking water source water protection.

Benefits to States

- Consultations with experts on innovative practices from around the country.
- Exposure to other state examples and strategies.
- Recommendations based on state-specific program reviews.
- Strategies for improving funding for water protection.
- A support network—both within and outside of government—for implementation.
- A modest amount of financial support to initiate implementation activities.

¹ To learn more about this project and the other states involved, please go to www.landuseandwater.org.

The national partners wish to thank the Andrews Tolman and the Maine Drinking Water Program for their dedication to and assistance with this project.



The Trust for Public Land conserves land for people to enjoy as parks, gardens and other natural places, ensuring livable communities for generations to come.



*The **Smart Growth Leadership Institute**, a project of [Smart Growth America](#), is dedicated to helping state and local elected, civic and business leaders design and implement effective smart growth strategies. SGLI's coalition includes many of the best-known national organizations advocating on behalf of historic preservation, the environment, farmland and open space preservation, and neighborhood revitalization.*



River Network is leading a nationwide movement to preserve and restore clean and healthy waters. While rivers are our focal point, we work to protect the quality of all fresh waters and the health of all people and ecosystems dependent upon them.



The Association of State Drinking Water Administrators (ASDWA) is the professional association serving state drinking water programs. Formed in 1984 to address a growing need for state administrators to have national representation, ASDWA has become a respected voice for states with Congress, the United States Environmental Protection Agency (EPA), and other professional organizations.



EPA leads the nation's environmental science, research, education and assessment efforts. The mission of the Environmental Protection Agency is to protect human health and the environment. Since 1970, EPA has been working for a cleaner, healthier environment for the American people.

AN ACTION PLAN TO PROTECT MAINE'S DRINKING WATER SOURCES

Aligning Land Use and Source Water Protection

Executive Summary

The abundance of lakes, rivers and ponds across Maine's landscape offers not only beauty but also quench the thirst of its residents and visitors. Unlike many states in the country, many of Maine's utilities do not rely on treatment facilities to restore water quality, and it has taken a number of measures to ensure that its aquifers and surface sources continue to provide healthy, clean drinking water into the future. For what could be learned from and improved upon, Maine was chosen as one of the first states to participate in a national project, sponsored by the United States Environmental Protection Agency, that explored how better land use decision-making could protect drinking water sources.

For more than a year, a national project team composed of land use, conservation and water quality experts engaged a diverse group of state agency, public water systems, and other interested in conserving land to protect water resources in a series of workshops (see sidebar). Several potential opportunities were identified then filtered to focus on those that:

- Offered the highest impact on drinking water source protection;
- Required low-to-moderate investment of public resources;
- Demanded high urgency for implementation;
- Had a short-to-medium time frame for implementation;
- Had a moderate-to-high chance for implementation; and
- Required low-to-moderate (primarily administrative) effort to implement.

These opportunities (see Table 1) form the foundation of an action plan that will provide guidance regarding steps the state can take to align land use and drinking water programs to better protect drinking water sources. In-depth analysis of existing programs and listening sessions with representatives from across the state revealed that three key short-term actions could assist with better synergy between land use and drinking water source protection:

- Employing The State of Maine's Quality of Place Investment Strategy to strengthen drinking water source protection, using the state's ability to direct funding for infrastructure and economic development. Emphasizing the cost

Enabling Drinking Water Source Protection At-a-Glance

State of Maine Kick-off Meeting¹
March 20-21, 2008

Development of Maine Summary of Land and Water Alignment Opportunities¹
April – September 2008

Maine Opportunities Workshops¹
October 29-30, 2008

Development of State Maine Action Item Summaries¹
December 2008 – March 2009

Workshop Participant On-Line Survey
June 1 – 12, 2009

Development of State of Maine Land and Water Alignment Action Plan
June – August 2009

benefits of drinking water source protection, the state will build on existing partnerships and conduct public outreach emphasizing the importance of having enough clean, safe water by proactively protecting drinking water sources.

- Continuing a phased investment in on-line mapping resources and information-sharing to provide critical data to local governments and developers so they can make more informed land-use decisions.
- Developing guidelines for compatible recreational opportunities in and around sensitive protection areas will provide greater access to conservation funding and a broader constituency to preserve lands and waters important for drinking water.

All three of these short-term recommendations represent refinements and logical next steps for Maine. The action plan also emphasizes that providing a dedicated statewide funding source for drinking water protection would have the highest positive impact, but will require longer term planning and coordination to implement. Maine's Drinking Water Program has initiated implementation efforts in all of these areas.

² The Maine Kick-off Summary is available for download at <http://www.maine.gov/dhhs/eng/water/Templates/TPLgrant.htm>.

³ The Maine Summary of Land and Water Alignment Opportunities report is available for download at <http://www.maine.gov/dhhs/eng/water/Templates/TPLgrant.htm>.

⁴ Workshop summaries are available by contacting the Maine Drinking Water Program, 207-287-2070.

⁵ Ibid.

AN ACTION PLAN TO PROTECT MAINE'S DRINKING WATER SOURCES

Aligning Land Use and Source Water Protection



INTRODUCTION

Luna Leopold wisely noted that “the health of our waters is the principle measure of how we live on the land.” When a local government makes a decision about new development within its jurisdiction that provides positive impacts to its local economy and offers improved services, well-intentioned decision-makers may not have the long-term view in mind or even the right information to understand the potential for unintended consequences. For instance, that new development may sit upon lands within a watershed that affects the purity of drinking water for a town several miles away, leading to a reliance on expensive water treatment facilities in the future. A state government, in its effort to support local initiatives, may also direct large amounts of infrastructure investments toward areas that affect the vitality of drinking water sources, even while another state program is trying to protect those sources.

Achieving better coordination between state land use and drinking water programs is at the heart of a multi-year, national project sponsored by the United States Environmental Protection Agency (EPA). The State of Maine was one of the first states selected to work with a national project team of land use, conservation and water quality experts, to assess opportunities where greater integration and alignment could occur at the state level to support local communities.

In March 2008 The Trust for Public Land (TPL) and the Smart Growth Leadership Institute (SGLI) in partnership with the Association of State Drinking Water Administrators (ASDWA) and River Network (RN) hosted a kick-off event with Maine's Drinking Water Program (MeDWP). The kick-off engaged a diverse group of state agency representatives, public water systems, non-profit organizations, and other interested stakeholders in identifying key opportunities for improved collaboration in the areas of smart growth, conservation and water quality.⁶

The national project team refined these opportunities through research, interviews, and discovery, and presented their findings at a workshop in October 2008,⁷ where ideas were organized for discussion in three topic areas:

- Planning from a Watershed Perspective
- Supporting Local Governments and Regional Planning Commissions
- Generating Funds to Support Source Water Protection.

⁶ See Appendix A for list of participants.

⁷The Maine Summary of Land and Water Alignment Opportunities report is available for download at <http://www.maine.gov/dhhs/eng/water/Templates/TPLgrant.htm>.

Participants provided further input and began targeting strategies to achieve better collaboration across state programs and with local governments.

With this feedback, the national project team sought real-world examples of successful implementation efforts in other states and created an *Action Item Summaries*⁸ document that outlined how recommended action items related to identified opportunities and could be implemented in Maine. During the first two weeks in June 2009, workshop participants were invited to review this document and to participate in an on-line survey to further refine and prioritize the action items. Participants were asked to determine the level of financial investment, effort, urgency, timeframe for and likelihood of implementation, and the impact on source water protection for the following:

- Should the state target priority watersheds for the creation of watershed-based land commissions, similar to the Sacco River Corridor Commission?
- Should the state strengthen the watershed framework of its stormwater permits to make more meaningful connections to local land use decisions, e.g. the Long Creek Watershed?
- Should the state adapt various cost-benefit analysis tools to calculate the economic value of source waters to heighten awareness of drinking water sources as economic assets?
- Should the state include drinking water sources among the assets considered for the Governor's Quality of Place Investment Strategy?
- Should the state develop a quantitative and qualitative measurement tool to assess the health of watersheds, and provide annual recognition of those assessments through a watershed scorecard-type of program (e.g. the Chesapeake Bay Program)?
- Should the state create a program that certifies land use commissioners/planning board members (e.g., the Connecticut Land Use Academy) that focuses on educating and informing local officials about the impact of their decisions on source waters and other natural resources?
- Should the state elevate watershed and land use planning as prominent Best Management Practices?
- Should the state streamline statewide GIS databases (e.g., MeGIS, Beginning with Habitat, Maine Geological Survey) and develop protocols for collecting, analyzing, uploading and managing data to reduce duplication of efforts and funding, and to provide a one-stop center for state, local and regional governments and organizations to address mapping and data needs?
- Should the state create a comprehensive statewide map that shows regulatory requirements, priority conservation and preferable development areas, and provide links to plans and model ordinances, similar to New Jersey's iMap system?
- Should the state utilize regional planning and conservation commissions to provide technical support to local governments?
- Should the state develop overarching guidelines for compatible recreational opportunities on lands and in waters critical to drinking water source protection?

⁸Workshop summaries are available by contacting the Maine Drinking Water Program, 207-287-2070.

- Should the state increase funding for drinking water source protection through the creation of a dedicated funding program?
- Should the state enhance its Current Use Tax Program to target landscapes important for drinking water source protection?

Almost 30 percent of those invited to the on-line survey participated. Survey respondents provided input on whether or not new funding would be needed to implement, and whether implementation would require administrative or legislative action. They also weighed in on which agency or organization would have the primary responsibility for implementation and effective measures of success.

The survey results were filtered to include in the final action plan only those that:

- Offered the highest impact on drinking water source protection;
- Required low-to-moderate investment of public resources;
- Demanded high urgency for implementation;
- Had a short-to-medium time frame for implementation;
- Had a moderate-to-high chance for implementation; and
- Required low-to-moderate (primarily administrative) effort to implement.

The only exceptions to the parameters were the action items that had the highest level of support and urgency but would require long-term steps for collaboration and implementation.

The overarching theme of this action plan is raising drinking water source protection to the highest levels of consideration in both state investment and local government decision-making. The action items focus on creating the frameworks and providing the tools needed to make informed choices that strengthen the protection of Maine's source waters.



RECOMMENDED ACTION ITEMS IN PRIORITY ORDER

SHORT-TERM HIGH PRIORITIES

ACTION ITEM 1. INCORPORATE DRINKING WATER SOURCE PROTECTION AMONG THE ASSETS CONSIDERED FOR THE QUALITY OF PLACE INVESTMENT STRATEGY.

This action was viewed by survey respondents as requiring minimal effort to implement while possessing urgency and exerting high impact on the protection of drinking water sources.

Drinking water source protection often is discussed in terms of wellhead protection, shoreline and buffer zones, which are typically code words for regulations. Drinking water source protection is broader than these few areas and relies on the interplay of land uses across multiple political jurisdictions and landscapes. In 2007 Governor Baldacci introduced the Quality of Place Initiative (QofP), an asset-based economic development strategy intended to grow and innovate Maine's economy while also protecting and enhancing its unique and irreplaceable natural resources. Draft legislation posted by the QofP Counsel defines an *asset* as "the region's marketable quality of natural and built assets, including natural resources, landscape, downtown, historical and cultural assets; distinct and exceptional recreational, education, transportation assets; and related workforce..." While the role of clean water has been acknowledged, it is not explicitly branded as an asset by which to direct public investment.

For source water to compete for attention among assets, Maine must frame discussions of source water protection in economic terms (cross reference with Action Item 8), including adapting watershed functions with phrases from the business world:

- Watersheds = water supply chain
- River, streams, aquifers = delivery systems
- Forests, undeveloped lands = upstream suppliers

Next Steps for Maine Drinking Water Program (MeDWP):

- Work through the State Planning Office (SPO) to tie drinking water source protection into the Quality of Place Investment Strategy.
- Work with local Non-point Education for Municipal Officials (NEMO) and other environmental educators to tie the economic asset information into existing community outreach and scenario planning.
- Incorporate the cost-benefit analysis tool (developed in Action Item 8) into state evaluation documents.

Measures of Success

- Emergence of drinking water source protection in policy discussions at state level.
- Development of an economic evaluation tool that provides both a scientific- and a market-based message that is incorporated into state information and literature, outreach strategies, and review procedures.

- Greater public support for drinking water source protection (cross reference Action Item 4).

ACTION ITEM 2. STREAMLINE STATEWIDE GEOGRAPHIC INFORMATION SYSTEM (GIS) DATABASES (E.G., MEGIS, BEGINNING WITH HABITAT) AND DEVELOP PROTOCOLS FOR COLLECTING, ANALYZING, UPLOADING AND MANAGING DATA TO A) PROVIDE A ONE-STOP CENTER FOR STATE, LOCAL AND REGIONAL GOVERNMENTS; AND B) TO REDUCE DUPLICATION OF EFFORTS AND FUNDING.

Over the past several years that State of Maine has invested in improving its GIS data sources, and a number of sites house critical source water information important to state and local government decision-making (e.g., MeGIS, the Department of Environmental Protection (DEP), the Department of Conservation (MeDOC), the Geolibrary Board, the Southern Maine Regional Planning Commissions, the Maine Coast Protection Initiative and Beginning with Habitat.) The state offers an abundance of information, but several factors limit users' access to and the functionality of the data available. Complicating these factors are the financial resources necessary to integrate and update data, insufficient Internet access in some part of the state, and the training of local government officials to use even the existing frameworks effectively.

Survey respondents deemed this action of high impact and urgency so that source water protection becomes front and center in any trend analyses. Operating and management savings could be realized if a one-stop platform replaced duplicative efforts in different agencies and institutions, and it would create nimbleness in the state's response to meeting local government data and mapping needs.

Phased Implementation Steps for Maine's GIS Developers

Phase I

- Review current mapping practices of all agencies and Regional Planning Commissions (RPCs).
- Consider organizing all data under one umbrella with user-friendly protocols for data organization, uploading, and management of quality and content.
- Develop a catalog of data, which will help to streamline funding, operations, and maintenance.
- Provide a training program to regional organizations, local governments and non-governmental organizations (NGOs) to take advantage of Google or Virtual Earth solutions, which could meet immediate data and mapping needs as phased implementation of statewide improvements are in progress.
- Identify data layer gaps that clearly "tell the story" of drinking water sources, e.g.,
 - Better depict landscapes, not just wellheads, related to source water protection.
 - Communicate varying levels of regulatory requirements based on location in watersheds.
 - Better visually communicate the links among groundwater, surface water and land cover characteristics.

- Coordinate collection of data into maps and visual presentations that highlight the effects of land use decisions.
- Identify innovators with agencies, regional planning organizations and universities who are working on mapping, data collection, and graphics to specifically support activities related to future land use planning and mapping.
- Revisit the role Source Water Assessments play as a web-based tool.

Phase II

- Prioritize strategic data collection, trends analysis, and mapping investments to support decisions on future growth, investment, and conservation, including source water protection measures.
- Create template analysis models to easily replicate analyses within different jurisdictions, as well as across respective watersheds.
- Create web service templates for municipalities to use that provide simple zoning, planning, tax parcel, and other applications that do not require GIS expertise.
- Use future drinking water scenarios that can be mapped and calculated via the Future Land Use plan and process.

Measures of Success

- Non-duplicative, readily accessible data sets.
- User counts that show increased access to GIS information by local governments, NGOs and others.
- Usage of maps derived from database in decision-making.
- Annual or biannual user surveys that track accuracy, availability, accessibility and applicability of GIS data, maps, and services.
- Increased GIS development budget.

ACTION ITEM 3. DEVELOP OVERARCHING GUIDELINES FOR COMPATIBLE RECREATIONAL OPPORTUNITIES ON LAND AND IN WATERS CRITICAL TO DRINKING WATER SOURCE PROTECTION.

While meeting multiple community and conservation goals, such as habitat protection, historical/archaeological preservation, and outdoor recreational opportunities, lands and waters important for public drinking water supplies require different management approaches than other spaces because of their need to protect the public health. A majority of public funding sources for land conservation require some form of public access, which can cause concern for water utilities and limit the dollars they could pursue to support conservation in their watersheds. The recent Highland Farm project provided a real-life example of this challenge of balancing source water protection and compatible recreation access. It serves as a key educational opportunity for developing a process proactively seeking opportunities for land conservation projects that combine recreational and water supply objectives.

More funding for conservation would be available to water utilities if overarching guidelines could be established. For this reason, survey respondents ranked this action item as a high priority, with high urgency and a high chance for implementation. As

more wetlands, forests and other important lands could be conserved, the impact on source water protection would be high.

Next Steps for Maine's DWP and State Planning Office (SPO)

- Proactively identify stakeholders and interested parties that need to be a part of a larger discussion regarding water quality and public access.
- Begin convening small, information discussions within specific watersheds to address this issue.
- Engage in a formal workshop or series of workshops with identified stakeholders to develop guidelines and processes for decision-making that can be adapted to the unique features of watersheds.

Measures of Success

- Agreed-upon guidelines for compatible recreational opportunities.
- Decrease in user conflicts because of behavioral changes.
- Increase in dollars tapped and acres conserved by water utilities.
- Quality of drinking water maintained with increased recreational uses.
- State recreation and access plans reflect source water sensitivities.

LONG-TERM HIGH PRIORITIES

Both action items 4 and 5 were ranked as having the highest impact (69% and 73%, respectively) on drinking water source protection. However, because both would require legislative engagement and approval, broad constituency building, and new financial investment to implement, they were viewed as entailing more than five years to bring to fruition.



ACTION ITEM 4. INCREASE FUNDING FOR DRINKING WATER SOURCE PROTECTION THROUGH THE CREATION OF A DEDICATED FUNDING PROGRAM.

The protection of source waters spans a variety of landscapes – forests, riparian buffers, wetlands, small streams and aquifer recharge areas. However, funding that specifically targets these lands for drinking water source protection lags behind other conservation funding. Maine's successful 11-year-old land acquisition loan program has seen increased demand each year and will likely become insufficient as conservation projects compete with necessary capital projects. Demand for the state's federal allocation of Drinking Water Revolving Funds (DWSRFs) remains stiff, with twice the number of projects with merit than available funding.

Land for Maine's Future (LMF) has enjoyed overwhelming public support and has raised more than \$177 million since 1987. Its track record for leveraging public funds is three dollars for every one bonded. LMF is the model for how to create, sustain and manage public investment. Maine's water resources face similar threats from unchecked development and population growth as its conservation and recreation lands, but call for different management solutions and evaluation criteria. A similar, companion program to LMF would address the state's growing need for dollars to protection drinking water sources.

Next Steps for Maine's DWP

- Initiate high-level discussions with large water utilities, potential legislative champion(s), and other key stakeholders to determine best funding option for Maine and to assess processes for enacting.
- Conduct public opinion polling to determine public support and to determine key messages.
- Demonstrate positive track record of the DWSRF program, and the resulting restoration and prevention projects that have been funded.
- Research history of public approval of water protection referenda and identify trends, such as what past water bonds included for projects and how approval rates varied.
- Conduct quantitative analysis to make the case for the funding program, including increases in requests for DWSRF, requests for LMF dollars for drinking water source-related projects, number of acres not being conserved by utilities because of conflicts with existing funding sources.
- Utilize compiled information to identify champion(s), path for approval, and grassroots support.
- Develop a timeline for implementation.

Measures of Success

- An approved funding measure or source dedicated to drinking water source protection.
- Amount of funds raised and leveraged for drinking water source protection.
- Number of acres subsequently protected for drinking water source protection.

ACTION ITEM 5. ENHANCE EXISTING CURRENT USE TAX PROGRAM TO INCLUDE LANDSCAPES IMPORTANT FOR DRINKING WATER SOURCE PROTECTION.

Maine offers two programs that lower property tax burdens to encourage landowners to preserve undeveloped lands: 1) the tree growth; and, 2) the farmland and open space tax laws. Both of these programs help to keep land in their "current uses" rather than see them developed. These kinds of programs build an ethic of resource protection with private landowners, and create flexible alternatives for local governments and landowners to work together for conservation of important lands used for farming, forestry and open space.

Neither program, however, explicitly enhances opportunities for drinking water source protection. Maine would benefit and lead the way if it strengthened criteria within the open space portion of the law, or created a new category that targets lands and waters, including riparian buffers, wetlands, lakes and streams, identified a critical to improve drinking water quality.

Next Steps for Maine’s DWP and Bureau of Revenue Services

- Identify stakeholders, including local governments, to discuss the viability and necessity of this idea to increase funding for source water protection and to bring private landowners into the conservation mix.
- Develop specific criteria for the types of lands and resources that would protect ground and surface waters in Maine.
- Investigate opportunities to expand the current use tax laws to include drinking water source protection criteria or to create a new source water protection category.
- Creating or expanding the current use tax programs to include source water protection requires approval by simple majority of both chambers of the legislature and signature by the Governor. If discussion of expanding the current use tax law to include historic structures proceeds, the time may be right to incorporate source water protection into the discussions.

Measures of Success

- Legislative approval of revisions to existing current use tax laws to expand to include criteria or create new category for drinking water source protection.
- Increase in number of landowners participating in program.
- Increase in number of important acres enrolled in program.

MEDIUM PRIORITIES

The action items discussed in this section are those that showed moderate-to-high support but may require more intensive effort, funding or time to implement.

ACTION ITEM 6. TARGET PRIORITY WATERSHEDS FOR CREATION OF WATERSHED-BASED LAND COMMISSIONS, SIMILAR TO THE SACCO RIVER CORRIDOR COMMISSION.



Maine offers two prominent examples of legislatively created watershed districts – the Cobbossee Watershed (CWD) and the Sacco River Corridor (SRCC) – which regulate water levels and address excessive nutrient loads (CWD), and that regulate land use decisions (SRCC). The focus on the watershed scale has resulted in relationships,

information sharing, and positive outcomes for their respective basins. Organizing towns around their watersheds would provide a platform for greater cooperation and shared decision-making that takes into account the effects of local land use decisions on the entire watershed.

Next Steps for Maine's SPO and Department of Environmental Protection (DEP)

- Study the successes and drawbacks of both the Sacco River Corridor Commission and the Cobbossee Watershed District to determine best practices for watershed-scale relationship building, decision-making and information sharing.
- Propose and convene a task force to further examine creation of watershed districts around priority watersheds.

Measures of Success

- Determination of priority watersheds.
- Passage of enabling legislation.
- Formation of commissions.
- Long-term funding mechanism to support commissions.
- Local acceptance and cooperation with goals and performance measures.
- Effective implementation of source water protection goals through changes in land uses.

ACTION ITEM 7. ELEVATE WATERSHED AND LAND USE PLANNING AS BEST MANAGEMENT PRACTICES.

In an effort to harness the power of new watershed and stormwater management concepts as they apply to joint land development and water resources planning, protection and restoration, regulated localities must implement best management practices (BMPs). For Maine, tying water resource and land planning is not new, but worth revisiting and strengthening based on several emerging factors:

- The heightened attention to economic development and asset-based planning;
- High profile land planning activity around the state, including a comprehensive plan for the Unincorporated Territory and the use of the Clean Water Act's "residual designation authority" in Long Creek; and,
- New procedures for comprehensive planning with emphasis on the Future Land Use Plan (FLUP).

Next Steps for Maine

- Work with the SPO to determine how source water might be handled in the Quality of Place Investment Strategy. Options include:
 - A module characterizing source water as an asset based on criteria in the QoP Investment Strategy.
 - Updated source water protection techniques for community visioning.
 - Models for rural development facing land subdivision, including a sharper focus on redevelopment of abandoned buildings and sites.
- Meet with the SPO and DEP to assess the potential for using the Long Creek restoration management as a model for small area planning in urbanizing areas.

- Document the performance of BMPs used in the planning arena.

Measures of Success

- Number of BMPs initiated.
- Inclusion of BMPs in state policies.
- Documented evidence that what is happening on-the-ground is a result of BMPs penetrating actual site development review.

Note: Action items 8 and 9 work in tandem and with other recommended actions, especially items 1 and 4, in developing a core, consistent benefits-based message of the importance of drinking water source protection. While their direct impact on source water protection may be moderate – as a direct land use or conservation result does not occur – their indirect impact raises the profile of source waters within the public dialogue.

ACTION ITEM 8. ADAPT COST-BENEFIT ANALYSIS TOOLS TO CALCULATE THE ECONOMIC VALUE OF DRINKING WATER SOURCE PROTECTION.

Maine's DWP is participating as one of the testing models for the Water Research Foundation's *Source Water Protection Cost/Benefit Tool*. This opportunity comes at a time when the state is focusing on targeting its investments toward defined assets. The ability to discuss the cost-benefits of source water protection through conservation and focused development in priority areas in comparison with the costs of treatment systems and unchecked growth raises drinking water source protection to the same level as other types of infrastructure, such as transportation, housing and school construction.

Next Steps for Maine's DWP:

- Determine the applicability of the Water Research Foundation's cost-benefit calculating tool to Maine and how it can be replicated in priority watersheds.
- Work with Non-point Education for Municipal Officials (NEMO) and other environmental educators to tie the economic asset information into existing community outreach and scenario planning.

Measures of Success

- Use of figures and statistics derived by cost-benefit tool across state agencies, environmental organizations and local governments in evaluation and decision-making.
- The incorporation of economic valuation in public and environmental presentations.
- Improved public understanding of the benefits of source water protection.

ACTION ITEM 9. IMPLEMENT A “SCORECARD” PROGRAM TO ASSESS THE HEALTH OF WATERSHEDS AND PROVIDE ANNUAL RECOGNITION OF EXEMPLARY PRACTICES.

The challenge of raising the profile of drinking water sources and protection efforts is that water in Maine is abundant and clean, so it is not viewed by the general public as under immediate threat. Frankly speaking, drinking water is not nearly as glamorous as new houses and developments that can bring immediate cash returns, even if they require long-term public investment. Significant interest was shown by workshop participants in refining the drinking water message and increasing its frequency and reach. One way of accomplishing this objective is to create a “scorecard” similar to the one in Chesapeake Bay that benchmarked existing conditions, and tracked progress of restoration and planning efforts. The scorecard concept could stoke some friendly competition among target watersheds through a true incentive program that recognizes exemplary efforts at improving water quality.

Next Steps for Maine’s DWP and DEP

- Convene a cross-organizational team to develop criteria, monitoring methodologies and a tool for watershed assessments by building on existing programs.
- Identify key program partners to provide both qualitative and quantitative data that provides measures for a scorecard.
- Identify participating watersheds.
- Set baseline for initial measurement and annual assessments.
- Develop a reporting framework and media strategy for publishing and promoting the watershed scorecard.

Measures of Success

- Scorecard developed and widely communicated, resulting in increased awareness of the health of watersheds, increased monitoring and analysis, and improved water quality ratings over time.
- Number of watersheds assessed and improving scores.

ACTION ITEM 10. UTILIZE REGIONAL PLANNING AND CONSERVATION COMMISSIONS TO PROVIDE TECHNICAL SUPPORT TO LOCAL GOVERNMENTS.

Utilizing Regional Planning (RPCs) and Conservation (CCs) commissions to deliver technical assistance and education to local governments will help the state take advantage of program convergences. Maine enjoys a well-established state-planning framework, on that is both admired and copied among planning peers. Because of the state’s strong tradition of home rule, however, success of reaching state objectives rellight on how localities implement and sustain practices related to land and infrastructure development, and conservation and management. As such, support for local governments is critical if Maine is to meet its own goals of sustaining quality of life, economic development and long-term stewardship of state assets.

Next Steps for Maine's DWP, SPO and DEP

- Work with SPO to develop a Future Land Use Planning strategy to include 1) a list of studies and modeling exercises typically used to support future land use plans; 2) data sets needed; 3) review of information packets sent to support comprehensive planning and updates to address Future Land Use planning, modeling and mapping; 4) additional studies, modeling, and analysis needed to protect both ground and surface water supplies; and, 5) communication packets on linking source water protection and future land use plans and maps.
- Convene a working group of drinking water stakeholders to develop “drinking water as an asset” materials and distribution strategy as part of the Quality of Place initiative.
- Reach out to county, municipal and township associations to proactively engage pre-Phase II communities on BMPs, planning and water resource protection.

Measures of Success

- Number of towns requesting the resources of RPCs and CCs for education, technical assistance, and guidance through planning and decision-making.
- Number of requests for maps and data by local governments and other stakeholders.
- Increase in towns encouraging growth in preferred development areas, away from sensitive resources, and revising ordinances based on improve information.



CONCLUSION

Maine is in the unique position of proactively addressing drinking water source protection to maintain and improve upon the health of its surface and ground waters, without having to resort to costly treatment systems. The broad collaboration among agencies, organizations, and local representatives in this project showcases Maine's innovation and commitment to the delivery of safe, clean drinking water through a balance of smart development, conservation, and clear guidelines. The ability of a plan to generate implementation is the key measure of the plan's success. Maine's Drinking Water Program has already begun taking the next steps toward the top three priorities, and is beginning discussions about future funding with other departments as well as its private, non-profit partners. The national project team will contribute a small amount of funding to help with the state's efforts.

Appendix A
List of Process Participants

Patty Aho, Pierce Atwood
Art Astarita, RCAP Solutions
Jeff Austin, Maine Municipal Association
Barbara Berry, Maine Association of Realtors
Susan Breau-Kelley, Maine Rural Water Association
LaMarr Clannon, Maine Non-point Education for Municipal Officials
Amy Paige Condon, The Trust for Public Land
Roger Crouse, Maine Drinking Water Program
Dwight Doughty, Maine Department of Transportation
Maggie Drummond, GrowSmart Maine
Caryn Ernst, The Trust for Public Land
Dennis Finn, Saco River Corridor Commission
Andy Fisk, Maine Department of Environmental Protection
Chris Feurt, Wells NERR
Judy Gates, Maine Department of Transportation
Alec Giffen, Maine Forest Service
Tim Glidden, Land for Maine's Future
Tom Gordon, Cumberland Soil and Water Conservation District
Liz Hertz, Maine State Planning Office
Paul Hunt, Portland Water District
Sue Inches, Maine State Planning Office
Chris Jackson, Maine Oil Dealers Association
Stefan Jackson, The Nature Conservancy
Keith Kanoti, Maine Forest Service
Gayle Killam, River Network
Ted Lavery, U.S. Environmental Protection Agency
Chris Martin, Maine Forest Service
Robert Marvinney, Maine Geological Survey
Deirdre Mason, Association of State Drinking Water Administrators
Jeff McNelly, Maine Water Utilities Association
Rosemary Monahan, U.S. Environmental Protection Agency
Lisa Nisenson, Smart Growth Leadership Institute
John Peckenham, University of Maine George Mitchell Center
George Powell, Maine Department of Conservation, Boating Facilities Program
Beth Pratte, Maine Drinking Water Program
Jeff Romano, Maine Coast Heritage Trust
Jessica Sargent-Michaud, The Trust for Public Land
Tamar Shapiro, Smart Growth Leadership Institute
Gordon Stuart, Small Woodlot Owners Association
Jim Taft, Association of State Drinking Water Administrators
Steve Timpano, Inland Fisheries and Wildlife

Andrews Tolman, Maine Drinking Water Program
Wolfe Tone, The Trust for Public Land
Terry Trott, Maine Drinking Water Program
Steve Walker, Beginning with Habitat
John Wedin, Ellsworth Water Department
Dan Wells, Winthrop Utilities District
Don Witherill, Maine Department of Environmental Protection