Water Supply Land Protection Grant Program

Sixth Report
June 2012 – July 2014

Prepared by the New Hampshire Department of Environmental Services in accordance with RSA 486-A:9, II

August 2014

R-WD-14-5

Water Supply Land Grant Program – Sixth Report

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Cover Photo: Lake Massabesic – Auburn, NH (Water Supply for Manchester, NH)
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A. INTRODUCTION

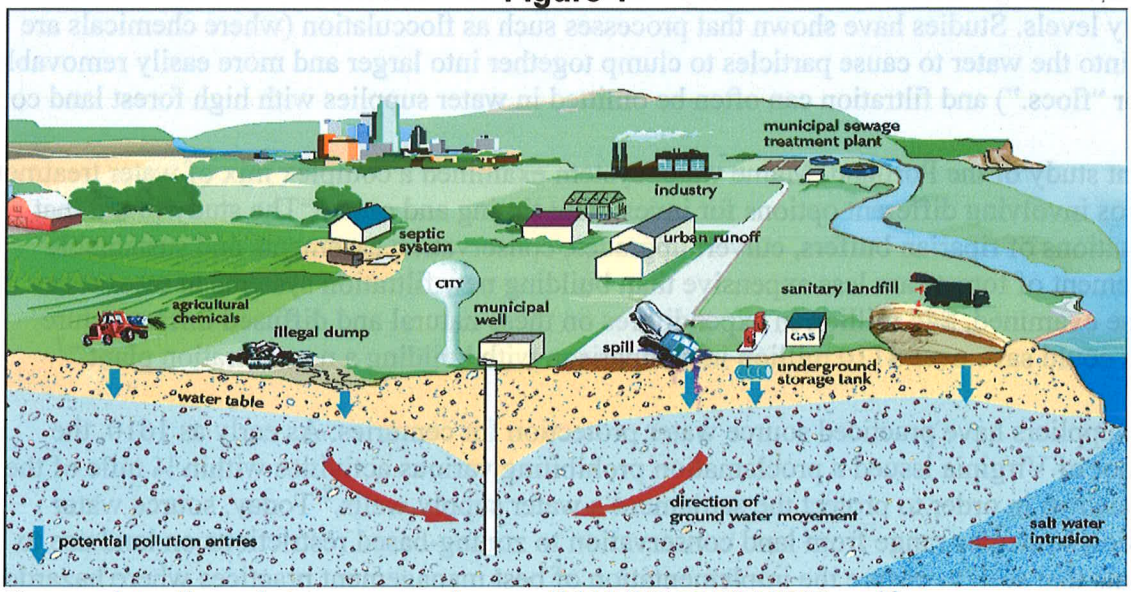
New Hampshire's population increased by 6.5 percent between 2000 and 2010, the fifth straight decade in which it grew at a rate faster than any other state in the Northeast.[1] Looking ahead, however, the state is expected to experience slow population growth.[2] But slow population growth does not mean that development pressure on water supply lands will cease. Second homes, commercial development, and some new "first" homes will continue to take their toll on the natural landscape. For example, between 1990 and 2010 population in the Piscataqua Region watershed grew by 19 percent, but the amount of impervious surfaces increased by 120 percent.[3] This conversion of undeveloped land to rooftops, pavement, and other surfaces that are impervious to the infiltration of rain presents a challenge to municipalities responsible for supplying high quality, safe drinking water to their residents.

Industrial, commercial and residential development all have the potential to degrade drinking water quality. Rainwater flows across roadways, driveways, roof tops, lawns and parking lots, gathering contaminants such as motor oil, gasoline, pesticides, fertilizers and road salt before the water infiltrates into the ground or flows into surface water. In contrast, a natural landscape, particularly when forested, filters and slows down water before it reaches surface water and groundwater. Forests not only filter water but release it more gradually than developed surfaces, so that forested land surrounding a drinking water source preserves not only the quality of the water, but quantity as well. Resource managers increasingly refer to phenomena such as this as "ecosystem services" or "watershed services," referring to the fact that the natural environment provides economically valuable services that would otherwise cost money to provide.[4] This is true for the lands that filter the water that feeds both groundwater and surface water sources used as water supplies.

Conversion of undeveloped land to rooftops, pavement and other surfaces that are impervious to the infiltration of rain presents a challenge to municipalities responsible for supplying high quality, safe drinking water to their residents.

Figure 1 below shows the relationship between sources of contamination and groundwater sources of drinking water.

Figure 1



Source: http://unesdoc.unesco.org/images/0013/001325/132503e.pdf

Keeping water supply lands in an undeveloped state is an integral part of water supply protection. The multiple-barrier approach to water supply protection, adopted by the U.S. Environmental Protection Agency and the water supply industry, encompasses a range of strategies, from selecting the best available water sources and protecting them from contamination, to measures that focus on the treatment, monitoring and distribution of water. Under this framework, these multiple barriers work together to help ensure a safe supply of drinking water. No single aspect of water supply management, such as treatment, should be relied upon to the exclusion of other elements, such as source protection. However, as new contaminants are discovered, new and more elaborate treatment techniques are required. While advances in technology allow us to treat for more contaminants than ever before, these treatments are not necessarily a cheap fix. Costs are highly variable depending on the treatment techniques being used by a water system.

A 2008 study by the U.S. Environmental Protection Agency (EPA), U.S. Department of Agriculture, Forest Service (USFS), and Trust for Public Land (TPL) linked declining forest cover in water supply watersheds with lower water quality and increased water treatment costs. Among the various measures of land cover, such as forest cover or urban cover in the entire watershed, forest cover within a 100-foot buffer around water bodies showed the strongest correlation with a water quality index comprising total organic carbon, turbidity and alkalinity. The study was based on a survey of 60 water treatment plants across the country treating between 1 million and 100 million gallons per day.[5]

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A 2005 report by the U.S. Geological Survey, with support from the N.H. Department of Environmental Services (NHDES), showed that when impervious

surfaces increased in a corridor around a stream, turbidity also increased. Urban land use within a one-kilometer radius or a 25-meter stream buffer upstream of a sampling site showed the greatest correlation to high turbidity levels.[6] Sample sites that were surrounded by forested areas had lower turbidity levels. Studies have shown that processes such as flocculation (where chemicals are mixed into the water to cause particles to clump together into larger and more easily removable clots, or "flocs.") and filtration can often be omitted in water supplies with high forest land cover.

A recent study of the Portland, Maine water system examined a complex mix of water treatment scenarios involving different options for investment timing and costs. "The study found that combinations of riparian buffers, culvert upgrades, conservation easements and sustainable management of forests are less expensive than building new filtration systems in most cases. In one case examined, $44 million in expenditures on these natural and diffused infrastructure options could save over $110 million in comparison with building a new filtration plant."[7]

Water suppliers have practiced source water protection for centuries. As early as 1610, the Governor of Virginia issued a proclamation prohibiting various activities within ¼ mile of the fort at Jamestown in order to protect the settlement's water supply wells.[8] Today, source water protection strategies range from land conservation to zoning-based restrictions on land use to programs that seek to ensure the implementation of best management practices where hazardous substances are used.

In a 2012 survey of likely New Hampshire voters, nearly all (97 percent) agreed that we must invest in land conservation to protect New Hampshire's quality of life for future generations, 95 percent agreed that protecting land, water, and wildlife in New Hampshire is critical to our tourist industry and helps create jobs, and 86 percent said that preserving land for water quality protection is a very important part of land conservation.[9]

In a 2012 survey of likely New Hampshire voters, nearly all (97 percent) agreed that we must invest in land conservation to protect New Hampshire's quality of life for future generations.

Some communities, typically larger cities with old water systems, have long practiced source water protection by purchasing land around their drinking water intakes; this has been most often used in protecting surface water supplies rather than wells. For example, Manchester Water Works has used Lake Massabesic as its water supply source since 1874 and now owns 8,000 acres of land, including 95 percent of the Lake's 28-mile shoreline.[10] The City of New York, which has drawn its water supply from watersheds at least 40 to 100 miles away since 1842, committed $250 million for land conservation over a recent ten-year period.[11] The Commonwealth of Massachusetts owns or controls nearly 29,000 acres (57 percent) of the vast Quabbin Reservoir watershed, which came on line as a water supply source for metropolitan Boston in 1948.[12] The public benefits of these water supply lands include flood protection, wildlife habitat and recreation.

Purchasing land or placing conservation easements on critical water supply land, over which water flows towards surface water and groundwater drinking water sources, is by far the most effective way to protect drinking water by preserving forested buffers. A conservation easement is a legally binding agreement that limits certain types of activities and development from taking place on the

land. (A more detailed definition of a conservation easement can be found in Appendix E and model deed restrictions can be found in Appendix F). A 2002 study by TPL and the American Water Works Association looked at 27 surface water supplies and found that for every 10 percent increase in forest cover in the drinking water source area, treatment and chemical costs decreased approximately 20 percent.[13]

Despite the importance of protecting natural forest land buffers, a 1998 study prepared by the Society for the Protection of N.H. Forests (SPNHF) for NHDES found that in N.H., only 11 percent of the lands through which water flows to sources of public drinking water supplies were protected via ownership or conservation easement.[14] The study also reported that 39 percent of community water systems did not even own the sanitary protective radius (150 - 400 feet) around their wells.[15]

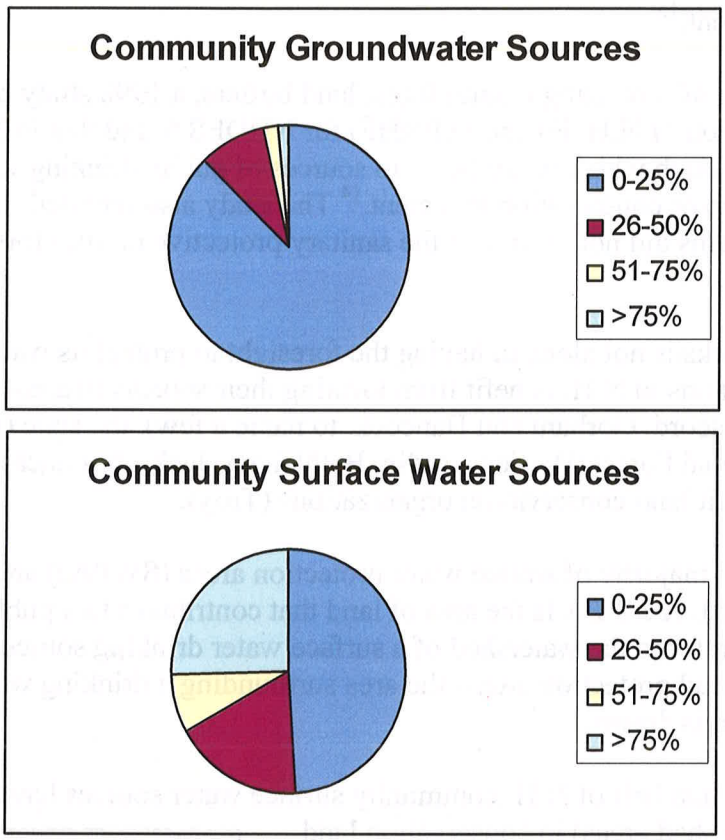
Manchester Water Works is not alone in having the foresight to protect its water supply watershed lands; many water systems in N.H. benefit from locating their sources in areas protected by the municipality (as in Concord, Gorham and Hancock, to name a few), the state (Pembroke), the White Mountain National Forest (Bartlett, Berlin, Bethlehem, Jackson, Lancaster, Lincoln and Littleton) and non-profit land conservation organizations (Troy).

Unfortunately, the vast majority of source water protection areas (SWPAs) are largely, if not completely, unprotected. A SWPA is the area of land that contributes to a public drinking water source. A SWPA can refer to the watershed of a surface water drinking source, such as a reservoir or a river or to a wellhead protection area – the area surrounding a drinking water well from which the well's ground water is drawn.

Figure 2 below shows that half of N.H. community surface water sources have 25 percent or less of their SWPAs (watershed areas) in conservation land and 25 percent of surface water sources have greater than 75 percent of their watershed areas conserved. Eighty-seven percent of community groundwater sources have 25 percent or less of their SWPAs (wellhead protection areas) in conservation land and less than 5 percent of these groundwater sources have greater than 75 percent of their SWPA conserved.

> Half of N.H. community surface water sources have 25 percent or less of their SWPAs (watershed areas) in conservation land.

Figure 2
Percentage of land protected in source water protection areas at community water systems



The availability of potential sources of future water supply is also dwindling. In 2009, NHDES awarded a Local Source Water Protection grant to SPNHF to review and update a statewide analysis NHDES performed in 1999, published as two volumes titled, *A Guide to Identifying Potentially Favorable Areas to Protect Future Municipal Wells in Stratified Drift Aquifers*. This "favorable gravel well analysis" identifies sand-and-gravel aquifers that hold the potential for high yield water supply wells. SPNHF used up-to-date geographic information system data to overlay on each stratified aquifer a series of prescribed buffer distances based on hydrological features and on development and potential contamination sources, such as highways, pipelines and railroads. SPNHF analyzed remaining aquifer area outside the buffer areas for potential well yield using U.S. Geological Service data on aquifer characteristics. This analysis found that:

- The total area of all mapped sand-and-gravel aquifers in N.H. is about 805,000 acres, or 14 percent of the state's land area.
- Only about 85,000 acres, or 11 percent, of that aquifer area is suitable for wells pumping 75 gallons per minute or more (minimum volume for a large community well).
- Only about 20 percent of the 85,000 acres is permanently protected from development.

Adding to the scarcity of available future well sites, many of the remaining high-yield zones in New Hampshire's aquifer basins are in rural or remote areas away from the rapidly urbanizing

southeastern quarter of the state, where the need for additional water supply sources is likely to be greatest.

B. WATER SUPPLY LAND PROTECTION GRANT PROGRAM DESIGN

In response to the need demonstrated by the 1998 SPNHF report, the N.H. Legislature created the Water Supply Land Protection (WSLP) Grant Program in 2000, giving municipalities and non-profit water suppliers the opportunity to obtain grants for the purchase of land or conservation easements.

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1. Statutory Requirements

RSA 486-A is the statute that establishes the NHDES WSLP Grant Program. Grants for the purchase of land or conservation easements are available to municipalities and non-profit organizations having water supply as their principal mission. The statute also provides that grants under the program cover up to 25 percent of total project costs, with 75 percent of the cost being matched by the entity requesting the grant. RSA 486-A:12 allows the applicant's 75 percent match to consist of:

- Cash;
- Transaction expenses, including associated legal and transaction costs;
- Donations of source water protection lands or conservation easements assessed at fair market value and protected in perpetuity; or
- A combination of cash, transaction expenses and land donations.

Effective July 16, 2009, RSA 486-A:2 was amended to expand the eligibility for the grants to future sources of public drinking water and broaden the definition of grantees to include non-profit land trust organizations.

RSA 486-A:7, II establishes the following eligibility and application requirements for the program:

- The land or conservation easement must be from a willing seller and be within the source water protection area or wellhead protection area of an active, proposed[♣] or future[♦] public drinking water source;
- The source must supply a community or non-transient non-community water system;
- The land or conservation easement must be owned in perpetuity by the grantee;
- The land must be maintained in perpetuity to protect the drinking water source and no land use or development shall occur that would diminish the quality of the drinking water; and

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[♣] "Proposed source" is defined in Env-Dw 1002.02(n) as "a proposed well or surface water intake for which a community or non-transient non-community water system has received all required approvals from the department."

[♦] "Future source" is defined in RSA 486-A:2, IV-a. as "(a) Stratified-drift aquifer areas identified by the department as favorable gravel well areas not constrained by existing development; and (b) Other groundwater resources identified by the department as high-yielding aquifer areas not constrained by existing development." NHDES has identified and mapped the areas in (a) but not the areas in (b).

- The applicant shall provide required stewardship, that is, ongoing surveillance of the land to ensure that the conservation intent is maintained, and submit annual stewardship reports to NHDES.

RSA 486-A:8 requires that NHDES establish rules governing the prioritization of applications and include the following factors:

- Distance from and relation to the drinking water source;
- Size of the area proposed for protection relative to size of the source water protection area;
- Natural resource values, including wetlands, habitat protection, and recreational uses;
- Current protection status of the source water protection area; and
- Ability of the applicant to pay for water supply land protection.

Finally, RSA 486-A:11 directs NHDES to adopt rules to implement the program and further describe requirements for eligibility determination and procedures and requirements for applications, project selection and prioritization and stewardship.

A copy of RSA 486-A can be found in Appendix A.

2. Eligibility requirements and application ranking and selection

The administrative rules that NHDES has adopted, Env-Dw 1002, require that a project meet the following criteria in addition to the criteria set forth by the statute described above:

- The land being protected must be undeveloped and free of known and potential contamination sources;
- The project eligibility application must be approved by the local governing body of the municipality applying for the grant, where the applicant is a municipality; and
- The land to be protected must not already be permanently protected and not currently owned by the applicant.

The criteria NHDES uses to rank and select applications can be found at Env-Dw 1002.12 and are summarized in Table 1 below.

TABLE 1 - PRIORITIZATION FACTORS
Type of water system (NTNC, community, or municipal)
Size of water system (people served)
Number of sources that will be protected
Size of the area proposed for protection (acres)
Natural resource values, including wetlands, habitat protection, and recreational uses
Distance from and relation to the drinking water source
Length of riparian frontage
Size of match over 75% provided by applicant
Number of water protection measures being implemented (e.g., educational program; water conservation plan; source water protection area regulations)
Average per capita income and equalized taxable valuation for the municipality where those served by the water supply reside

A complete list of the criteria and the scoring system is in Appendix B.

The administrative rules also set forth the application process for obtaining water supply land protection grants. There is a grant round in the spring and/or the fall depending on the availability of grant funds. The process consists of the following steps:

- Applicant submits a complete project eligibility application by the deadline announced by NHDES for that grant round.
- NHDES uses the information provided in these applications to determine which projects are eligible using the criteria in Env-Dw 1002.05. NHDES then does a preliminary ranking of the projects using the priority ranking system in Env-Dw 1002.12 and notifies applicants within 30 days of the eligibility application deadline whether they are eligible and provides the results of the preliminary ranking.
- NHDES staff arrange with the applicants to visit the properties that have been conditionally selected to receive a grant.
- Applicants submit a final grant application package to NHDES by the deadline announced by NHDES for that grant round, typically two months after the eligibility application deadline.
- NHDES notifies applicants within 60 days of the final application deadline as to whether their project has been selected to receive a grant award pending Governor and Council (G & C) approval. G & C approval typically takes a minimum of one to two months.

3. Project completion and on-going stewardship

If the project is selected, the applicant must submit the following information for all properties to be protected under the application, including match properties:

- Property survey, prepared in accordance with Env-Dw 1002.16;
- Appraisal, prepared in accordance with Env-Dw 1002.17;
- Title examination, and if necessary, an opinion of title, prepared in accordance with Env-Dw 1002.18; and
- Environmental site assessment, if necessary, prepared in accordance with Env-Dw 1002.15.

In order to provide for water supply protection in perpetuity, either a conservation easement or a deed with restrictions must be recorded (Env-Dw 1002.19(b) describes the minimum restrictions that a deed must contain). Payment is not made until NHDES has approved these documents and approval of the project has also been obtained by the Attorney General's Office and the Governor and Council. The grantee is required to execute the land transaction and record the deed (Env-Dw 1002.22), adhere to the terms of the conservation easement or deed restrictions (Env-Dw 1002.19), and provide ongoing stewardship of the property (Env-Dw 1002.21).

NHDES oversees the grantees' stewardship by reviewing annual monitoring reports submitted by the grantee. NHDES also accompanies some of the grantees when they perform annual site monitoring visits.

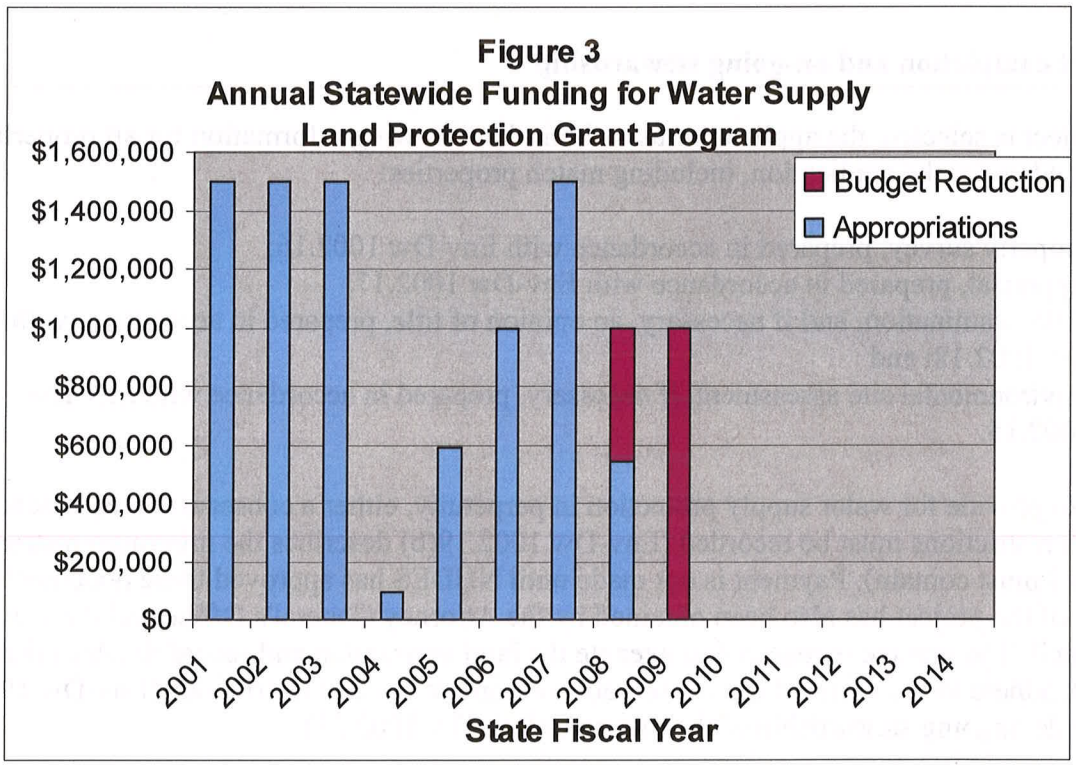
C. HISTORY OF THE WSLP GRANT PROGRAM

1. Funding

The WSLP Grant Program staff person is funded through a set-aside in the Drinking Water State Revolving Fund, which NHDES receives from EPA pursuant to the Federal Safe Drinking Water Act. This makes it possible for all state funding provided for the WSLP Grant Program to be used solely for grants.

As indicated in Figure 3 below, the Legislature appropriated $1.5 million per year in the first few years of the program, but since then annual appropriations have ranged from zero to $1.5 million. In 2007, the legislature appropriated $1 million per year for Fiscal Years (FY) 2008 and 2009. However, budgetary cutbacks reduced the FY 2008 funds to $542,750 and the FY 2009 funds to zero. No funds were appropriated for FY 2010 - FY 2014. When the program was funded, the average appropriation over the life of the program has been $768,521 per year.

The Legislature has not appropriated any state funds to the program since Fiscal Year 2008.



In FY 2011, the program received $3 million from the N.H. Department of Transportation (DOT) mitigation fund associated with the widening of Interstate 93 between the Massachusetts border in Salem and the I-93/I-293 interchange in Manchester. Under a Memorandum of Understanding (MOU) between NHDES and DOT, the funds are limited to the protection of water supply lands in the communities (Salem, Windham, Derry, Londonderry and Manchester) directly impacted by the I-93 project and land in the watershed of Lake Massabesic, which provides drinking water to the City of Manchester. The $3 million of funding is available through June 30, 2016. A copy the MOU and a map of the areas eligible for these grants are in Appendix G. NHDES and DOT are considering possible changes to the MOU to broaden the areas eligible for grants using these funds.

2. Grant applications

Prior to 2009, when state-wide grant funding was zeroed out, the number of applications had steadily increased. In FY 2000, four eligibility and four final applications were received. In FY 2008, 13 eligibility and 10 final applications were received. The geographic distribution of applications also became more widely dispersed throughout the state. In 2000 through 2005, applications were received only from municipalities in the southern region of the State. After 2005, applications from other regions were on the increase.

From 2003 through 2008, grant requests not only exceeded the funds available each grant round, but the disparity between grant requests and the amount of funding available continued to increase. Even in years in which no state-wide grant funding has been available, namely 2009 through the present, there have been frequent inquiries about the grants from municipalities, public water systems and land conservation organizations with specific projects to protect critical water supply land.

Starting in Fall 2011, grant rounds have been held to award grant funding related to the I-93 widening as described in Section C.1. The current grant round was announced in July 2014 and has a project eligibility application of November 1, 2014 and a final application deadline of February 2, 2015. Unlike previous grant rounds, the non-state match requirement has been decreased from 75 percent to 50 percent in order to encourage more applications. Because the source of the funding is DOT, the match cap is set by DOT requirements, rather than RSA 486-A, the statute that governs the NHDES WSLP Grant Program.

3. Collaboration with other organizations

From the beginning of the WSLP Grant Program to the present, SPNHF has been an important partner. It was SPNHF's 1998 study that highlighted the need for a grant program to assist municipalities in protecting their drinking water sources. From 2000 through 2004, NHDES contracted with SPNHF to provide valuable assistance in drafting, reviewing and negotiating conservation easement deed language with applicants. Since that time, NHDES has continued to consult with SPNHF on conservation easement deed

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language and on cutting-edge conservation issues. SPNHF has revised its model conservation easement and the WSLP Grant Program has used this as it updates its own model conservation easement with a focus on drinking water protection. Most recently, as described in the Introduction to this report, NHDES contracted with SPNHF to conduct a study that identifies the extent to which the availability of potential high-yielding well sites in New Hampshire's sand-and-gravel aquifers is shrinking due to land development.

Many organizations have been and continue to be important partners by assisting municipalities and/or contributing to municipalities' required match. These partners include SPNHF, the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) through its Farm and Ranch Protection Program and Wetlands Reserve Program, the Nature Conservancy, the Great Bay Resource Protection Partnership, the federal Coastal and Estuarine Land Conservation Program, the N.H. Fish and Game Department's Landowner Incentive Program, the NH Land and Community Heritage Investment Program (LCHIP), TPL and a number of regional land trusts. There are also NHDES programs which have either provided match funding in the past or have the potential to provide funding in the future. These NHDES programs include the Aquatic Resource Mitigation (ARM) Fund and the Drinking Water State Revolving Loan Fund.

A 2009 U.S. Forest Service report ranked the Merrimack watershed number one in the United States in terms of total acreage of private forest projected to experience increased housing density and number four among watersheds projected to experience the greatest deterioration in water quality as a result of increases in housing density on private forest lands.

Since 2009, NHDES has been a leading participant in the Salmon Falls Watershed Collaborative, a project which has led to substantial commitments of resources from NRCS to prepare forest management plans for landowners in the Salmon Falls River and Merrimack River watersheds. One of the current initiatives of this collaborative is to help land conservation organizations within the watershed identify lands with important water supply values.

The WSLP Grant Program was also a partner in SPNHF's recently released Merrimack Valley Strategic Conservation Plan[16], which identifies priority areas for land protection in the lower Merrimack River watershed. Development of this plan was a collaborative effort of numerous federal and state agencies, statewide and local non-profit land trust organizations and regional planning commissions in New Hampshire and Massachusetts. A 2009 USFS report ranked the Merrimack watershed number one in the United States in terms of total acreage of private forest projected to experience increased housing density and number four among watersheds projected to experience the greatest deterioration in water quality as a result of increases in housing density on private forest lands.[17] The Merrimack River is used as a water supply source by Pennichuck Water Works and is considered a likely future source by the City of Concord. A number of municipal systems withdraw water from wells located very close to the river and Manchester Water Works is developing plans to do so as well.

D. PROJECTS FUNDED TO DATE

1. Projects completed prior to August 2014

Projects completed prior to August 2014 are listed in Appendix D. Over the life of the program, grant awards have averaged $170,772 per project and the SWPA land protected with each project has averaged 140 acres. These projects are also described in more detail in WSLP Grant Program reports issued in 2003, 2005, 2008, 2010 and 2012 respectively.

2. Projects completed since the previous report

The following projects have been completed, made possible by the DOT I-93 mitigation fund, since the date of the previous report (June 2012) through July 2014. The following is a description of these projects in order of completion.

HOOKSETT (Clay Pond II) – This project protected 172 acres in the source water protection area of Lake Massabesic, Manchester's drinking water supply, serving a population of 133,000.

BEAR PAW REGIONAL GREENWAYS (Hinman Pond properties) This project protected 353 acres in the source water protection area of Lake Massabesic.

AUBURN (Mason property) – This project protected 34 acres in the source water protection area of Lake Massabesic.

3. Projects pending as of July 31, 2014

The last grant round (Fall 2013 – Winter 2014) was announced in October 2013 and closed in March 2014. One municipality, the Town of Windham, submitted an application and received a grant award, subject to G & C approval.

WINDHAM (Yennaco properties) – This project will protect two parcels of land, totaling 25 acres, in the wellhead protection areas of 5 community water systems (10 wells). The grant award of $27,500 will cover 25 percent of the appraised value of the land. Windham's conservation fund will cover remaining cost of the land purchase. The Southeast Land Trust will hold the conservation easement.

Two of the projects that received a grant award in 2011 have also not yet had a request submitted to G & C for approval. These are the Derry – South Range Realty Trust Project and the Windham – Forty Acres Development Company Project.

DERRY (South Range Realty Trust property) – This project will protect 63.5 acres within the wellhead protection area of a community well (Willowbend CWS). This land is 255 feet from the well. The Town has not yet been able to raise the funds necessary for the match.

WINDHAM (Forty Acres Development Company property) – This project will protect 33 acres within the wellhead protection areas for 8 community wells. This land is 504 feet from the nearest well. The Town is close to but has not yet completed its negotiations with the landowner.

Once each applicant submits an appraisal, draft conservation easement, and a signed grant agreement between NHDES and the applicant, NHDES will submit a request for authorization to G & C.

4. Other program accomplishments

Since the last biennial report in June 2012, the program:

- 1 Held grant rounds in Fall 2012, Spring 2013, and Fall 2013 and announced a grant round for Fall 2014 (described in Section C.2);

- Updated its conservation easement template; and

- Provided oversight for land stewardship of grant-funded land by reviewing annual monitoring reports and performing site visits.

E. PROGRAM OUTREACH

The purpose of the program's outreach efforts has been to maximize the program's effectiveness by encouraging the submission of applications for geographically diverse, high-quality projects.

Outreach consists of publicizing the program; providing potential applicants with information about the benefits of permanent protection of critical water supply lands, including the avoidance of remediation costs; and assisting prospective applicants with information regarding eligibility, scoring, and supplemental funding sources. Specifically, this is being done by:

- Posting information and announcements of grant availability on the NHDES web page;

- When grant funds are available, distributing information packets to water system operators when NHDES staff perform sanitary surveys (on-site inspections of public water systems);

- Publishing information and announcements in NHDES Source Water Protection Program quarterly newsletters (distributed to water suppliers, conservation commissions and planning boards); and

- Giving presentations and providing written materials at conferences and workshops attended by water system operators, members of the conservation community, and local officials.

- Electronic mailings to community drinking water supply owners and operators, town a1dministrators and city managers, non-profit land trust organizations, and the NH Association of Conservation Commissions.

For the I-93 grants, the WSLP Grant Program Coordinator also:

- For each grant round, mailed a notice and information to all of the community water system owners and operators, town administrators and city managers, non-profit land trust organizations and conservation commissions in the eligible geographic area; and

- Offered to meet with each of the nine conservation commissions in the eligible area and met with the seven conservation commissions that agreed to listen to a presentation about the grants.

Extensive technical assistance is provided to applicants during the pre-application and application process, including printing maps upon request.

F. FUTURE GOAL

The program's goal is to continue to partner with organizations, such as the Salmon Falls Watershed Collaborative, SPNHF, NRCS, regional planning commissions, and local land trusts, to work with municipalities to develop strategic land conservation plans that include critical water supply lands, including lands that could serve as future water supply as identified by Favorable Gravel Well Analysis.

As described in Section C.3., the WSLP Grant Program is continuing to pursue collaborations to more effectively assist municipalities and land trusts in conserving land to protect drinking water. This will help to ensure that critical water supply lands are identified as a priority in municipal and non-profit strategic land conservation plans.

G. CONCLUSION

Ensuring safe and adequate drinking water supplies requires maintaining the quality and availability of present and future water supply sources, because in the long run it is less expensive and more protective of public health to prevent contamination than it is to treat water to meet health standards, and it is less expensive to use existing sources than it is to develop new ones. New contaminants of concern continue to emerge, potentially requiring more costly treatment of source waters if they have not been adequately protected.

Municipalities and water suppliers have crucial roles in managing activities that affect source water quality and availability. NHDES' primary role is to provide technical and financial assistance and to enforce state regulations that serve to protect the state's sources of drinking water. Effective protection relies on the combined efforts of the state, water suppliers, municipalities, businesses, institutions and individuals whose activities have the potential to affect source water quality and availability.

Land conservation continues to be an extremely effective way to protect drinking water quality. The WSLP Grant Program has funded the acquisition of 5,601 acres of critical water supply land since its inception in June of 2000, including 668 acres under three grants completed since the previous biennial report in 2012. However, since the program relies on funding appropriations by the N.H. Legislature and has not been funded since 2007, the emphasis of the program will be at least for the near future, on (1) funding projects within the areas eligible for grants under the I-93 mitigation agreement with DOT, (2) ensuring that past grant recipients are meeting their stewardship monitoring responsibilities, and (3) collaboration with municipalities, water suppliers, federal and state agencies, land trusts, and other conservation organizations to support the protection of water supply lands..

For additional information concerning New Hampshire's WSLP Grant Program contact Holly Green, N.H. Department of Environmental Services, (603) 271-3114 or holly.green@des.nh.gov.

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