THE TRUST FOR PUBLIC LAND

Nashua River Watershed

Squannacook/Nissitissit

Land Conservation Funding Options
December 2002

Executive Summary

The Trust for Public Land (TPL) is a national nonprofit land conservation organization working to protect land for human enjoyment and well-being. TPL helps conserve land for parks, greenways, recreation areas, watersheds and wilderness, and also assists communities in identifying and securing public financing to achieve their land conservation goals.

The purpose of this report is to present a range of public funding options — collectively referred to as a "funding quilt"— that can protect land in the Nashua River Watershed for the purpose of watershed protection. More specifically, the report focuses on land protection in the Squannacook and Nissitissit sub-basins that straddle both sides of the Massachusetts and New Hampshire border. The sub-basin encompasses five towns in Massachusetts (Ashby, Groton, Pepperell, Shirley, Townsend) and six in New Hampshire (Brookline, Greenville, Hollis, Mason, Milford, New Ipswich).

This report is part of a larger effort sponsored by the Environmental Protection Agency that brings together the Trust for Public Land, the University of Massachusetts – Amherst and key local leaders to identify how land conservation can play a role in watershed protection.

This report presents the range of potential public funding options that can be knit together into a "funding quilt" to protect land in the Squannacook-Nissitissit region. A funding quilt is the combination of funding sources —state, local, federal and private— that are brought together to help achieve conservation objectives, such as the protection of land critical to source water protection. Central to the funding quilt is the role that one funding source plays in leveraging other sources.

The report begins with a discussion of local funding options, and then moves on to state and federal funding, with a separate presentation on options for Massachusetts and New Hampshire. Local funding is the most reliable long-term way to fund land conservation since state and federal funding can be scarce (and variable) and the competition for those funds is often fierce. Hence, these sources are best viewed as supplements or complements to local land conservation.

LOCAL

Massachusetts: The Community Preservation Act (CPA) offers the towns of the Squannacook-Nissitissit region the ability to establish a reliable, ongoing funding source for land conservation. While cities and towns can appropriate money or issue bonds periodically for specific projects, CPA offers the best opportunity to establish an ongoing funding source that will allow a community to proactively implement a land conservation program.

CPA gives communities the ability to levy a property tax surcharge (up to 3%) and use the proceeds for open space, affordable housing and historic preservation. CPA must be approved by a majority of voters at a local election; ballot questions can be referred by town meeting or via citizens initiative

petition. Each community must allocate 10% of its local CPA surcharge revenues to each of the three aforementioned purposes, with the remaining 70% subject to local discretion. The state is currently providing 100% matching grants to communities that adopt CPA, which is expected to continue for the near future.

While CPA has been successfully passed in 58 communities in Massachusetts, including neighboring Ayer and Harvard, none of five towns in the focus area have successfully passed it. Ashby and Shirley had unsuccessful ballot questions and Groton's town meeting rejected a proposal to establish a CPA ballot question. Pepperell and Townsend have not taken action yet on CPA. Since CPA does represent a great opportunity to establish a dedicated fund for land conservation and to receive matching funds from the state, the communities in this region should continue to pursue passage of CPA. It may be advisable to seek assistance on how to craft a winning measure from the CPA Coalition, a statewide organization that has assisted many communities with passing CPA.

New Hampshire: There are a number of communities —primarily in southern New Hampshire— that have approved appropriations or bond measures for acquisition of open space. During 2002, both Brookline and Hollis approved bond measures, totaling $1 million and $3.5 million, respectively. Another potential source of local funding is the Land Use Change Tax (LUCT). The LUCT is levied on property owners who take land out of current use taxation — typically farms and forests— for development. The tax is levied on 10% of the market value of the property at the time the property is taken out of current use. Communities have the ability to allocate some or all of their LUCT into a conservation fund. LUCT revenues can fluctuate widely year-to-year based on the number of properties taken out of current use. To date, there are 120 communities that allocate some of the LUCT to the conservation fund. In the Squannacook-Nissitissit region, two communities allocate 100% of their LUCT revenues to conservation, two allocate 50%, and two allocate nothing. For those communities in the region that do not currently have adequate funding to meet their conservation objectives, general obligation bonds and the LUCT represent widely used funding options that should be considered.

STATE

Massachusetts: The Commonwealth of Massachusetts has a wide array of land conservation programs that have already provided funding for projects in the Squannacook-Nissitissit watershed. These include both state grant programs, such as the Self-Help program, and direct state acquisition by the Department of Fisheries and Wildlife and through the Agricultural Preservation program (APR). In addition, the newly reenergized Aquifer Land Acquisition Program offers a promising opportunity, with up to $20 million available for local watershed protection grants over the next few years.

All of these programs should enjoy strong funding support over the next several years as a result of the recent passage of the Environmental Bond Bill. At $707 million, it is the state's largest investment ever in its "green infrastructure." The bond bill includes nearly $250 million in potential funding for land conservation. The realization of this funding depends upon the new Romney Administration allocating a sufficient share of its annual capital bonding outlay (est. $1.1 billion) to land conservation. In order to ensure that land conservation receives an adequate share of the annual bond allocation, local conservation

advocates from across the state —including the Squannacook-Nissitissit region— need to make their case with the new Romney Administration.

New Hampshire: New Hampshire has two primary state land conservation funding programs that have helped finance land conservation in the Squannacook-Nissitissit region — the Land and Community Heritage Investment Program (LCHIP) and the Drinking Water Land Conservation Grant Program. Both of the statewide land conservation programs were strongly supported by outgoing Governor Shaheen. With newly elected Governor Benson soon to take office, it is uncertain whether support for these programs will remain as strong. In order to ensure that these programs receive adequate future funding, local land conservation leaders must make the case to the new Administration and to the Legislature.

FEDERAL

At the federal level, there are two distinct types of funding for land conservation: 1) state directed programs, in which states receive grants from the federal government, but are given broad discretion to allocate funds (subject to federal program rules); and 2) direct federal programs, in which the federal government makes direct grants to local recipients, usually local governments. Of these two categories, the direct grants seem to hold more promise for Massachusetts and New Hampshire.

State directed federal grants include the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF). The CWSRF provides loans for water quality improvements, most commonly wastewater treatment plants. While in recent years, some states have used CWSRF funds for land conservation; Massachusetts and New Hampshire have not followed this route.

Since the CWSRF offers great flexibility to states, Massachusetts and New Hampshire might choose to emulate Ohio EPA's program to pair wastewater treatment projects with land conservation/restoration projects. Under such an arrangement, municipalities pay a reduced interest rate for wastewater treatment projects if they pair up with a non-profit conservation partner on a land conservation project.

The DWSRF makes loans to improve public drinking water systems, with funding often used for water treatment plants. States have the ability to set aside up to 10% of their annual federal grant for source water land conservation. Neither Massachusetts nor New Hampshire has set aside any DWSRF funds for land conservation. With Massachusetts receiving an average or $29 million per year, setting aside 10% per year would total $2.9 million annually statewide; in New Hampshire, this set aside would equal $760,000. In order to stimulate demand for DWSRF loans for land conservation, Massachusetts and New Hampshire might explicitly list land acquisition in its Intended Use Plan.

Another source of federal funding is EPA Section 319's non-point source pollution grant program. While Section 319 grants are not primarily used for land conservation, fifteen projects in the southeastern states were approved between 1995 and 1999 for land conservation. There have been no grants made under Section 319 in Massachusetts or New Hampshire however. Use of Section

319 for land conservation has lagged, partially due to the absence of thorough analysis linking land conservation with the reduction of nonpoint source pollution. However, since this type of analysis is being conducted as part of the overall Squannacook-Nissitissit Watershed effort, Section 319 may prove to be a viable funding option.

There are two direct federal grants that offer good funding potential – the Farmland Protection Program (FPP) and the Forest Legacy Program. The FPP recently received a boost from the 2002 Farm Bill, which has made $600 million available over the next five years for the purchase of development rights (PDRs), or conservation easements, on productive agricultural land. Grants for fifty percent of the cost of a permanent conservation easement (PDRs) are awarded on a competitive basis. In addition, the Forest Legacy Program has already been successfully used in Massachusetts for land conservation in the Squannacook-Nissitissit region, with 2 projects completed and 3 pending. Forest Legacy has recently been used in southern New Hampshire, a shift from the traditional focus on the northern forest. Given this development, it may be possible that the program could assist with conservation of forest land in the Squannacook-Nissitissit region.

A. Introduction

Protecting the Squannacook-Nissitissit sub-basins of the Nashua Watershed is of critical importance to the residents of Massachusetts and New Hampshire, in order to ensure a safe drinking water supply, protect the region's natural beauty, and guarantee a future with abundant plant and animal life and recreational opportunities. In order to make progress on this goal, the EPA has sponsored this collaborative effort by the Trust for Public Land, the University of Massachusetts – Amherst and local community leaders. Building upon separate, but complementary, efforts to assess and map vital land acquisition priorities in the watershed, this report will help present a range of funding options that can be used to protect land in the Squannacook-Nissitissit sub-basins.

The report begins by introducing the concept of a "funding quilt" – the combination of local, state and federal funds that can be combined to achieve land conservation objectives. It also gives examples of how the "funding quilt" has been used around the country to protect watershed land. The report then presents a rundown of specific local, state and federal funding sources that may be available to protect land in the Nashua River Watershed (Squannacook/ Nissitissit), with relevant examples interspersed from across the country. The report concludes with specific recommendations to move forward on land conservation funding.

B. The Funding Quilt

A funding quilt is the combination of funding sources —state, local, federal and private— that are brought together to help achieve conservation objectives, such as the protection of land critical to source water protection. Central to the funding quilt is the role that one funding source plays in leveraging other sources. The combination of funding sources that help accomplish these conservation goals may take many forms— state and federal, state and local, federal and local, etc— and also may shift over time. However, the most reliable form of funding to achieve conservation objectives over the long-term is local funding. Due to the competition for state, federal and private funding, these sources must be viewed as supplements or incentives, but not as the central funding source for a program.

In order to illustrate how communities are leveraging multiple funding sources to protect land for watershed protection, several examples drawn from TPL's work are presented here. These include funding quilts that have protected individual parcels such as the Assawompsett Pond Complex in Massachusetts, as well as funding quilts that have helped sustain long-term programs for watershed protection in the New York/New Jersey Highlands and Mountain Island Lake, North Carolina.

Assawompsett Pond Complex (MA)

Through a combination of state, local and private funding sources, nearly 4,000 acres of the Assawompsett Pond Complex was protected in fast-growing

southeastern Massachusetts. This collaborative effort included acquiring the 480-acre Betty's Neck property in Lakeville and securing conservation easements on 3,500 adjacent acres already held as municipal watershed land. The Assawompsett Pond Complex is the sole source of drinking water for the Cities of New Bedford and Taunton, and provides drinking water to Lakeville. It is also home to an abundance of wildlife species and provides scenic beauty and recreational opportunities in the fastest growing part of the state.

The majority of funding for this July 2002 project was provided by the state's Department of Environmental Protection Aquifer Land Acquisition Program, which made a $6.55 million grant and will receive a conservation easement on 3,500 acres. The state's funding came from the 1996 Environmental Bond Bill. The Town of Lakeville contributed $1.1 million and the City of New Bedford contributed $600,000 towards the Betty's Neck purchase. The City of Taunton also hopes to contribute $600,000 from the Statewide Revolving Fund for that purpose. Decisions on funding awards are anticipated by January 2003. The Trust for Public Land (TPL) also contributed $250,000 to the project, thanks to an anonymous Boston foundation.

New York/New Jersey Northern Highlands

The Northern Highlands serve as the source of drinking water for 2.2 million people in New Jersey. The area includes a series of reservoir systems – the Wanaque/Monksville system, the Pequannock System and the Boonton/Split Rock system. Over the past five years, within each system, a range of funding sources have come together to protect thousands of acres.

There are several factors underpinning the success in land conservation efforts in the Highlands. First, New York and New Jersey have significant state funding for land conservation –New York approved the $1.75 billion Clean Water, Clean Air Bond in 1996 and New Jersey's Garden State Preservation Act (1998) provides $98 million annually from the state sales tax. Second, New Jersey has provided the legal framework for local governments —counties and municipalities— to create local open space trust and the incentives (via matching grants) to create them. As a result, 19 of 21 counties and more than 150 local governments have open space trust funds. Finally, there are broad networks of private foundations, land trusts and citizen supporters of conservations in the area.

Local conservation finance measures have been approved in recent years in both Sussex and Morris Counties, home of the Pequannock and Boonton/Split Rock systems. Sussex County voters approved their first-ever property tax levy in November 2000 that will raise $1.6 million annually while Morris County voters increased their levy in November 2001 to $25-$30 million annually.

The Hawkwatch project in Rockaway Township, New Jersey is an example where the presence of local government funds helped leverage other funding. Of the total $7 million for the project, Morris County and Rockaway Township contributed $1.5 million from their local property tax levies, which was matched by $2 million from the state's Green Acres program. An additional $2 million came from the Federal Forest Legacy Program and the state grant portion of the federal Land and Water Conservation Fund, with more than $1 million from private foundations.

The most notable purchase within the Highlands was the 1998 purchase of 15,000 acres of Sterling Forest, a heavily forested area straddling the New York/New Jersey border. To reach the total cost of $55 million, Congress approved $17.5 million; the state of New York, $16 million; and New Jersey, $10 million. In addition, the Lila Acheson and DeWitt Wallace Fund for the Hudson Highlands and the Doris Duke Charitable Foundation contributed $5 million, while the Victoria Foundation contributed $1 million. The remaining funds were provided by private donors.

Mountain Island Lake (NC)

Mountain Island Lake provides the drinking water for more than a half million residents of Charlotte, North Carolina and vicinity. The area served by Mountain Island Lake includes Mecklenburg County, a large county with a substantial tax base, as well as two smaller, rural counties – Gaston and Lincoln.

Efforts to protect Mountain Island Lake began in the 1970s, when Mecklenburg County voters passed a $20-million bond package to create parks and greenways, mostly on the lake's east side. Subsequently, Mecklenburg County has approved several other bond packages, with 1999's $220 million effort the most recent. During the 1970s, Charlotte-Mecklenburg Utilities (CMU) also launched a small land-acquisition program in the watershed. Each year $50,000 from the utility's capital improvement budget goes to protection of land in the watershed – now totaling more than 2,700 acres.

While Mecklenburg County's expanding tax base has enabled a significant locally funded land-acquisition effort, Gaston and Lincoln counties have had fewer available local resources. One potential source of funds for these communities was created in 1996, when North Carolina's General Assembly created the Clean Water Management Trust Fund, the nation's first state funding program dedicated exclusively to water-quality protection.

The fund - created in response to several high-profile water-pollution events in North Carolina - guarantees a minimum of $30 million per year of general revenues to state agencies, local governments, and nonprofits for water-protection projects. Grants are made for the acquisition of land and easements for riparian buffers to protect urban drinking-water supplies, as well as for the repair or replacement of failing wastewater treatment and septic-tank systems. In 1998, Gaston and Lincoln counties obtained full funding from the Clean Water Management Trust Fund to buy a key 1,231-acre Mountain Island Lake property for $6.15 million.

C. Conservation Finance for the Squannacook-Nissitissit

The central feature of this report is to present a range of public finance options that might enable a funding quilt to be created to protect land in Squannacook-Nissitissit Watershed. The range of available local options will be presented first, since local funding is the most reliable source over the long-term, followed by state and federal funding.

Local Funding Options

A. Massachusetts

The creation of local funding is a critical component in helping leverage other funds for land conservation. In particular, the state's self-help grant program, and its farmland protection program (APR) require matching funds, as do federal farmland protection grants. The primary way for local governments in Massachusetts to create funding for an ongoing land conservation effort is through the Community Preservation Act (CPA). A community may also issue general obligation bonds through their town meeting, although majority voter approval is necessary if such actions would push their tax levy above the level allowed under Proposition 2 ½.

Community Preservation Act

The Community Preservation Act (CPA) is enabling legislation designed to help communities plan ahead for sustainable growth and raise funds to achieve their goals. CPA allows towns and cities to approve a ballot question allowing them to levy a community-wide property tax surcharge of up to 3 percent for the purpose of creating a local Community Preservation Fund. CPA must be approved by a majority of voters at a local election; ballot questions can be referred by town meeting or via citizens initiative petition. A CPA surcharge must remain in effect for up to five years, although the amount can be changed during this period.

The CPA fund must be used to acquire and protect open space, preserve historic buildings and landscapes, and create and maintain affordable housing. The law allows for communities to choose several exemptions, including the first $100,000 of residential property value, as well as exemptions for low-income residents, low and moderate-income seniors and commercial property. The state will provide matching funds to communities approving CPA.

Each community that adopts CPA is eligible for state matching funds, with the level of grants set by formula. No application is necessary. The grant matching percentage can fluctuate on an annual basis, depending on the level of state matching funds and the amount of total local CPA funds raised. Each community receives the same matching percentage –currently 100% - with the possibility of bonus grants for certain communities. Communities that adopt CPA can issue general obligation bonds using their local match to repay the bonds, with the approval of town meeting. (No election is required).

Since CPA went into effect in 2001, 58 communities have approved CPA, out of a total of 107 communities that have placed it on the ballot statewide (a 54% success rate). Under the provisions of CPA, the state provides matching grants once a year to those communities that have adopted CPA. On October 15, 2002, the Massachusetts Department of Revenue awarded its first round of CPA matching grants. In total, $17.8 million was awarded to the 34 municipalities that approved CPA in 2001[1] with each community receiving a 100% matching grant. As more communities approve CPA, the level of matching grants is likely to drop, although at present the fund is sufficient to ensure 100% matches for the near future.

CPA in the Squannacook-Nissitissit Region

There has been significant activity among the five towns in the Squannacook-Nissitissit Region, although CPA has yet to be adopted here. Ashby and Shirley had unsuccessful ballot measures, in 2002 and 2001. Groton unsuccessfully sought approval by its 2001 town meeting to place CPA on the ballot. Neighboring Ayer and Harvard both approved 2001 CPA measures and Lunenburg lost a CPA measure on November 5, 2002.

Community Preservation Act
Squannassit Communities and Neighbors

	Date	Surcharge	Exemptions	Status
Ashby	4/22/2002	3 percent	Low income, first $100k	38% yes
Groton	4/10/2001	3 percent	Low income, first $100k	Failed at TM
Pepperell				
Shirley	5/15/2001	3 percent	Low income, first $100k	29% yes
Townsend				
Ayer	4/23/2001	3 percent	Low income	54% yes
Harvard	4/3/2001	1.1 percent	None	72% yes
Lunenburg	11/5/2002	3 percent	First 100k	39% yes

Revenue Raising Projections

The Community Preservation Coalition, a statewide group providing technical assistance on CPA, has developed a methodology to project CPA revenues for all cities and towns in Massachusetts. The accompanying chart includes the likely revenue that would have been raised in the Squannacook-Nissitissit towns had they passed CPA, as well as the estimated annual cost per household and the percentage of income that would have been spent on the surcharge. For communities that have attempted CPA, the actual surcharge level is listed and the projected revenue reflects only the exemption on the first $100,000 of income, as allowed by CPA. For

CPA Revenue Raising Projections
Revenue projections based on fiscal 2001

	CPA Election Result	Surcharge	100K Exemption	Revenue Raising Projection	Est. Annual Cost per Household	% of Income Spent on Surcharge
Ashby	Fail	3.0%	Y	$37,158	25	0.04%
Groton	TM Fail	3.0%	Y	$318,922	129	0.16%
Pepperell		2.4%	Y	$139,644	37	0.06%
Shirley	Fail	3.0%	Y	$66,969	31	0.06%
Townsend		2.4%	Y	$53,575	27	0.04%
Ayer	Pass	3.0%	N	$218,342	56	0.12%
Harvard	Pass	1.1%	N	$105,154	54	0.05%

[1] Two of the 36 municipalities that approved CPA failed to meet deadlines established by the Department of Revenue.

communities that have not attempted CPA, the 2002 median surcharge level of 2.4% has been used.

As shown in the chart above, CPA would have raised roughly $37,000 in Ashby, $319,000 in Groton and $67,000 in Shirley. Projected revenues for Pepperell and Townsend are $140,000 and $54,000, respectively. At present each town would receive a 100% match from the state CPA fund. The CPA surcharges in Ashby and Shirley, represented .04% and .06% of household income, well below the .085% statewide median for communities that approved CPA in 2001, while Groton was roughly twice that level at 0.16%. It is noteworthy that neighboring Ayer was successful at passing CPA with a 3% surcharge and no exemptions, despite the relatively high share of household income this required (0.12%).

For those area communities considering CPA in the future, careful consideration should be made to construct a measure with the appropriate surcharge level and the right exemptions. The passage of CPA typically depends upon the support of a broad based coalition including municipal officials and an effective campaign that provides an array of voter education materials and identifies and targets likely supporters. In an effort to share the lessons learned from communities that attempted CPA in its inaugural 2001 year, the Community Preservation Coalition has put together a CPA guidebook (www.communitypreservation.org).

B. New Hampshire

There are several ways that local governments in New Hampshire can finance land conservation efforts. General obligation bonds and the land use change tax (LUCT) are used to support ongoing conservation programs and are the primary focus here. In addition, local governments can also make appropriations and issue bonds for the acquisition of specific parcels of land.

1. General Obligation Bonds

In recent years, a number of New Hampshire municipalities —largely in the southern tier of the state— have turned to general obligation bonds in order to fund land conservation projects. During 2002 town meetings, 19 communities in the south/central and southeastern tier of the state, including Amherst, Brookline, Newfields, and Stratham, approved bonds and appropriations totaling nearly $18.3 million. [2]

Municipalities may issue bonds for the acquisition of land as specified in RSA 33:3. Bonds are seen as a preferable funding option, compared with the Land Use Change Tax (LUCT) and general appropriations. LUCT revenues, a 10 percent penalty when land is taken out of current use (reduced tax assessment for active agricultural or forested lands), can fluctuate significantly on an annual basis, making it an unreliable source of funding. The use of general appropriations for land conservation, particularly in Southern New Hampshire, would require property tax impacts that would not be acceptable to voters. The issuance of bonds, payable over 20-30 years, yields a much lower annual tax

[2] Results of 2002 Town Meeting Votes on Articles for Land Conservation Funding. SPNHF. Updated 10/23/02.

impact and spreads the costs along to current and future residents who will benefit from the protection of open space.[3]

Enactment Procedures

Municipal bonds are subject to a local debt limit of 3% of the last wholly equalized assessed valuation of taxable property within the municipality.[4] A municipality must begin to repay the principal within two years and make a final payment within 30 years. Payment amounts are assessed and collected annually without vote of the municipality.[5]

Municipal corporations that have a traditional town meeting form of government must approve a bond issue by a vote by ballot of 2/3 of all voters present and voting. Municipal corporations with the traditional town meeting form of government that have enacted the official ballot referendum form of meeting, referred to as SB 2 towns, must authorize the issue of a bond by a vote of 3/5. [6] For bonds in excess of $100,000, at least one public hearing before the governing body must be held at least 15 days, but not more than 60 days prior to the meeting at which the bond will be voted on.[7]

General Obligation Bonds in Squannacook-Nissitissit Area

Hollis

At the March 2002 town meeting, voters in Hollis approved a $3.5 million bond, with a one-year sunset provision. The bond was approved by 91% of voters. The warrant article approved by the Town Meeting would require that no bonds be issued until a warrant article is subsequently approved by a simple majority of Town Meeting for acquisition of a specific parcel.[8]

Brookline

At the March 2002 town meeting, Brookline approved a $1 million bond, including $306,500 to acquire the 230-acre Hobart Fessenden Woods. The measure was approved by 83% of voters.

2. Land Use Change Tax (LUCT)

The Current Use property tax program encourages owners to maintain land as open space by reducing the tax assessment, and hence the tax liability. Only qualified land –typically farm or forested land— is eligible for the Current Use program. According to a 1995 report, over 2.7 million acres, or nearly 50% of the state's land base was enrolled in the Current Use Program.

Land Use Change Tax Allocations
Percent allocated to Conservation Fund

	Allocation	Date Adopted
Brookline	100%	2000
Greenville	0	
Hollis	50%	1997
Mason	100%	2000
Milford	0	
New Ipswich	50%	1989
	$10K annual cap	

[3] Ibid.
[4] RSA 33:4-a
[5] RSA 33:4-b
[6] RSA 33:8
[7] RSA 33:8-a
[8] http://www.hollis.nh.us/article_2.htm

When land is removed from the program, a 10% land use change tax (LUCT) is assessed against the land based on the full market value of the land at the time of its change in use. As shown in the accompanying chart, there are two towns in the Squannacook-Nissitissit region – Greenville and Milford-- that do not currently allocate any of their LUCT revenues to land conservation. The $10,000 annual cap listed in the chart pertains only to New Ipswich.

C. Utility Ratepayers

As part of their efforts to provide a reliable supply of clean, safe drinking water, water utilities are taking steps to protect more land within their watersheds. According to a 1991 watershed management study conducted by the American Water Works Association (AWWA), "the most effective way to ensure the long-term protection of water supplies is through land ownership by the water supplier and its cooperative public jurisdictions." At the same time, the study noted that the median percentage of watershed lands owned by water utilities nationwide is only 2 percent. [9] These land holdings may include not only the water intake area, but also land that protects against stormwater runoff, and provides recharge for groundwater supplies.

In order to increase the funds available for watershed land conservation, water utilities may incorporate dedicated fees for land acquisition as a supplement to their rate structure – as is the case in Salt Lake City. In addition, local water utilities may also purchase land through grants from a regular state grant program, if one is in place, as is the practice in Rhode Island.

Salt Lake City

Salt Lake City established a Watershed-Water Rights Purchase Fund in 1991 financed by a 0.25 surcharge on each monthly water bill. In 2000, the City Council approved an increase in the surcharge to .50 per bill. [10] Since the Fund was established, Salt Lake City has purchased 1,400 acres of watershed land. For example, in 2001, the City purchased 155 acres of watershed land in Big Cottonwood Canyon for $2 million, including $1.3 million from the City.[11]

Rhode Island Water Supply Board

Rhode Island's Water Supply Board, through its Watershed Land Acquisition Program, provides grants to public water suppliers to protect watershed supply lands. The so-called "penny per hundred" program, named for its levy of 1 cent (actually 0.01054) per hundred gallons, was enacted by the Rhode Island State Legislature in 1989 and generates approximately $2.2 million annually statewide for the purpose of acquiring land and protecting our raw water supply.

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[9] "Protecting the Source: How Land Conservation Safeguards Drinking Water." The Trust for Public Land. Richard M. Stapleton. June 30, 1997.

[10] www.ci.slc.ut.us/utilities/news 05042001

[11] www.ci.slc.ut.us/mayor/pressreleases/willowheights

D. Stormwater Utility

Stormwater utilities are independent authorities whose primary focus is to ensure water quality and provide flood control protections. The City of Griffin, Georgia (pop. 24,000) created a stormwater utility funded primarily through a rate structure based on impervious area. In Griffin, each residence is charged $2.95 per month, with non-residential properties levied $2.95 monthly per 2200 square feet of impervious cover. The utility's initial revenues have met the target of $1.2 million a year. [12]

While the Griffin stormwater utility has not been used for land acquisition, there is ample evidence that reduction in non-point source pollution and flood mitigation could be improved through judicious land acquisition programs.

Creating a storm water utility district in some parts of Massachusetts or New Hampshire would also provide a means of equitably levying a fee on all area residents for purchase of land for watershed protection. The City of Chicopee, Massachusetts has created the first stormwater utility in the state, under order from the Environmental Protection Agency. In order to address sewer overflows, polluted water supplies and flooded basements, residential property owners will be charged $10/quarter and industrial/commercial property owners $0.30/square foot/quarter. As part of the effort to establish the stormwater utility, the Pioneer Valley Planning Commission has established a stormwater utility kit that includes a step-by-step process on how to create a utility. Through our research, we found no current stormwater utilities in New Hampshire.

Lenexa, Kansas "Rain into Recreation" Stormwater Utility[13]

The city of Lenexa uses a variety of funding sources to implement its "Rain into Recreation" program. These include a 1/8-cent sales tax for stormwater/recreation improvements, a stormwater utility charge on residential, commercial, and industrial land users, and a capital fee on new development. These funds are supplemented with revenue from existing sources such as the county Storm Water Management Program.

State Funding Options

Massachusetts

While the Community Preservation Act represents a very significant source of state matching funds for land conservation (along with affordable housing and historic preservation), it is only available to those communities that have adopted CPA.

Another source of potential funding for land conservation in the Squannacook-Nissitissit region is the array of state funding programs contained within the recently enacted Environmental Bond Bill. There are two general types of land

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[12] "Stormwater Utility Case Study." Georgia Municipal Association. By Brant Keller, City of Griffin and Tommy Brown, Ogden Environmental. February 2000. www.gmanet.com/research

[13] MetroGreen Finance Strategy. Mid-America Regional Council. Page E-1.

conservation programs within the bond – grants to local governments and direct state land conservation.

In August 2001, Governor Jane Swift announced that the state had protected 100,000 acres in less than three years, through a combination of state grants and direct state acquisition or via conservation restrictions (a.k.a. easements). This puts the state halfway to reaching a 200,000-acre goal established by the Cellucci/Swift administration in 1998. During fiscal 2002, the state protected 42,000 acres, a record for one year. The state's ability to reach the 100,000-acre mark has been predicated on its extensive use of conservation restrictions (CR's). Of the 100,000 acres protected, there were 54,000 acres of CR's; during the three previous years, the state only protected 17,000 acres through CR's.[14]

Environmental Bond Bill

A $707 million Environmental Bond Bill was approved in August 2002 and will provide approximately $245 million for land protection, including $52.6 million for the Agricultural Preservation Restriction program[15] (a PDR program), 20.5 million for the acquisition of watershed lands by cities, towns and districts, $46.4 million for acquisition by the state's Department of Environmental Management (state parks and forests), $20 million for the Department of Fish and Wildlife, $21 million for the Self-Help Grant program to local governments and $9 million for bioreserve.[16] It should be noted that there is no guarantee that all (or even most) of this funding for land protection will be realized. Massachusetts' law provides the Legislature with the responsibility for authorizing bond spending (i.e. the Environmental Bond Bill) and the Executive branch ("The Administration") with the sole discretion to spend these authorizations. The present Administration has maintained an annual bond cap of roughly $1.1 billion with all environmental initiatives receiving roughly $125 million per year.

1. State Grant Programs

All of the programs cited below have received funding from previous Environmental Bonds and depend upon future Environmental Bond allocations.

Aquifer Land Acquisition Program

The Aquifer Land Acquisition Program, operated by the Department of Environmental Protection (DEP), provides grants to public water suppliers or municipalities to "protect and conserve groundwater aquifers and recharge areas, surface water supplies and watershed areas and lands adjacent to those areas." Grants may not exceed 80 percent of the eligible costs of the project. During fiscal year 2002, the program spent $9 million from an expiring DEP bond authorization, protecting 6,317 acres of water supply land across 13 projects.[17] The grants awarded in 2002 provided 60 percent of the eligible project costs.

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[14] "EOEA Reaches 100,000 Acres of Open Space Protected –Halfway to Governor's 200,000 Acre Goal." www.state.ma.us/envir/openspaceprotection.htm

[15] "Swift Signs $707 million Environmental Bond Bill." Commonwealth of Massachusetts, August 9, 2002.

[16] Chapter 236, 2002 Massachusetts Legislative Session. August 13, 2002.

[17] MA DEP Aquifer Land Acquisition Program

This was the first time that grants had been made under the Aquifer Land Acquisition Program since 1986. Demand far exceeded supply during the 2002 round of grants, with 46 total applications received, requesting $27 million. Since grants were selected based upon the price per acre, projects were largely awarded in western, central and southeastern Massachusetts. There was one application in the Squannacook-Nissitissit region, a $63,000 request for the Sweica property in West Groton. This request was not approved, likely due to the high cost per acre.[18] The recently passed Environmental Bond Bill – cited earlier-- includes $14.5 million for the Aquifer Land Acquisition Program.

Self Help Grant Programs

The Self-Help program assists municipal conservation commissions acquire land for natural resource protection and passive outdoor recreation. Self-Help grants provide 50% to 70% reimbursement of the total project cost up to a maximum of $250,000. Some grants may exceed this level, if the state has available funding.[19] The median grant between 1998 and 2002 was $224,000.

Massachusetts Self-Help Grant Program

Parcel Name	Municipality	Date	Acres - Fee	State $	Total Cost
Blood & Spring Hills	Ashby	FY 2001	170.0	$250,000	$437,750
Hurd Property	Groton	FY 2002	33.0	$161,820	$279,000
Mayou Parcel	Pepperell	FY 1998	62.0	$285,350	$432,350
Nashua River West Rail Corridor	Pepperell	FY 2002	7.9	$29,170	$44,200
Hunting Hill	Shirley	FY 1999	30.9	$36,750	$360,000
Pumpkin Brook	Shirley	FY 2000	136.6	$250,000	$750,000
Leng Property	Townsend	FY 1998	247.0	$476,000	$700,000

Note: The Pumpkin Brook project included $250k from the Forest Legacy program, and $250k from the Town of Shirley.

Between 1998 and 2002, the state acquired nearly 8,600 acres through Self-Help at a cost of roughly $32 million. The total cost of these projects was $93 million, with state funds enjoying a 2:1 leverage ratio. In the Squannacook-Nissitissit region, each town had at least one successful Self-Help grant, as shown in the chart above. The Pumpkin Brook project is noteworthy because it involved Federal Forest Legacy funds, as part of the state's targeted Nashua River Greenway. (See additional information under federal funding).

2. Direct State Land Acquisition

All of the programs cited below have received funding from previous Environmental Bonds and depend upon future Environmental Bond allocations.

Department of Environmental Management

The Department of Environmental Management (DEM) is the state's primary land management and natural resource planning agency. Its primary responsibility is the management of roughly 300,000 acres of land in the State Forest and State Park systems. DEM's land acquisition is focused on acquiring land or easements that have a link with an existing state park or forest – generally to protect adjacent land or "in holdings" within a park or forest.

[18] ibid.
[19] Guide to State Land Conservation Acquisition Programs of the Executive Office of Environmental Affairs. Page 32.

During fiscal year 2001 (ending June 30, 2001), DEM protected 52 properties across the state, totaling 11,000 acres.[20] In fiscal 2000, DEM acquired nearly 3,500 acres in 16 properties.[21]

Within the Squannacook-Nissitissit region, DEM has made one acquisition in recent years. In 2001, DEM acquired the 210-acre Chiacchia Property for $400,000, in collaboration with the Ashby Land Trust, which contributed $32,500 for the property. This property connects different parts of the existing Willard Brook State Forest and provides for an extensive wildlife corridor.[22]

Division of Fisheries and Wildlife (DFW)

The Division of Fisheries and Wildlife (DFW) is charged with the conservation and protection of all plant and animal species native to the Commonwealth. DFW's land acquisition efforts are centered on providing the highest quality habitats to support their stewardship mission. DFW has acquired more than 130,000 acres since its founding 70 years ago.[23] Between 1998 and 2002, DFW protected 40,200 acres statewide —22,800 through fee acquisition and 17,400 through CR's— at a cost of $49.5 million. In the Squannacook-Nissitissit region, there were 10 projects completed by DFW over this period, protecting 500 acres at a cost of $1 million. In 1990, the Legislature approved a bill requiring sportsmen to obtain a $5 Wildlands Conservation stamp annually. This particular source of funding has augmented MassWildlife's land acquisition ability by about $1.5 million/year.[24]

Division of Fisheries and Wildlife Land Acquisition
Fiscal Years 1998 - 2002

Pzrcel Name	Town	Year	Restriction	Fee	CR	State $	Total
Gilchrist	Ashby	FY 1999		80.0		$175,000	$175,000
Evans	Ashby	FY 2000		37.0		$85,400	$85,400
Sackville-Pickard	Pepperell	FY 2002		25.9		$115,000	$115,000
J&A Realty	Shirley	FY 1998		137.5		$221,000	$221,000
Cook Estate	Shirley	FY 1998		19.6		$30,000	$30,000
Reeves/J&A Realty Trust	Shirley	FY 1998		8.7		$15,000	$15,000
NEFF, Shirley, Lunenburg	Shirley	FY 1999	MA DFW		84.6		$0
Bagley	Townsend	FY 1999		25.0		$100,000	$100,000
Josselyn	Townsend	FY 2001		18.0		$13,300	$13,300
Manson	Townsend	FY 2001		55.9		$275,000	$275,000

Agricultural Land Preservation Program

Massachusetts has a long history of protecting working agricultural land through its APR program. According the Massachusetts Department of Food and Agriculture, the state has more protected more than 47,000 acres across the state since the program's inception, at a cost of $117 million. During fiscal 2002, the Department of Food and Agriculture completed APRs on 50 farms, protecting 4,755 acres; since 1998, DFA has protected 9,500 acres.[25] The largest concentration of APRs has been in Western Massachusetts' Connecticut River Valley, as well as southeastern Massachusetts' Buzzards Bay region. In the

[20] Fiscal Year 2001 Annual Report. Massachusetts Department of Environmental Management (DEM), Land Acquisition and Protection Program..
[21] Fiscal Year 2000 Annual Report. Massachusetts DEM, Land Acquisition and Protection Program.
[22] Fiscal Year 2001 Annual Report. Massachusetts DEM, Land Acquisition and Protection Program.
[23] Guide to State Land Conservation Acquisition Programs of the Executive Office of Environmental Affairs. Page 27.
[24] http://www.state.ma.us/dfwele/dfw/dfw_wma.htm
[25] "EOEA Reaches 100,000 Acres of Open Space Protected –Halfway to Governor's 200,000 Acre Goal." www.state.ma.us/envir/openspaceprotection.htm

Squannacook-Nissitissit region, the towns of Groton and Pepperell have lands protected under the APR program. Groton has 4 orchards totaling 230 acres under enrollment, while Pepperell has one orchard totaling 173 acres under APR. [26]

Bioreserves/Private Forest Initiative

In order to accelerate the pace of land protection, the state has recently begun working to protect large-scale landscapes through collaborative partnerships. Among the most significant projects that fall under this category are the Southeastern Mass. Bioreserve and the Tully Valley Project in the North Quabbin Region. The Tully Valley project entailed the state working in partnership with the Mt. Grace Land Trust to conserve nearly 10,000 acres of private forestland through conservation easement. Since the Executive Office of Environmental Affairs (EOEA) has driven the creation of these Bioreserves, it is uncertain where the next ones will be located. The Squannacook-Nissitissit region does share many of the same characteristics of the Tully Valley area, especially significant private forested holdings, although the cost of land is likely to be much higher. The recently passed Environmental Bond included $9 million for creation of new Bioreserves, so it might be worthwhile to reach out to EOEA to determine if the Squannacook-Nissitissit region warrants consideration as a Bioreserve.

New Hampshire

1. State Grant Programs

Land and Community Heritage Investment Program (LCHIP)

LCHIP provides grants to municipalities and non-profits for the protection or restoration of natural, cultural or historical resources including farmland, forestland, wildlife habitat, water supply lands. LCHIP provides grants up to 50% of the cost of a total project and can be used for acquisition of land or the purchase of conservation easements. LCHIP was established by the Legislature in 2000, and provided an initial $12 million over two years for land conservation and historic preservation. This was half the level of funding originally sought by supporters of LCHIP.

During the first grant round in June 2001, LCHIP awarded $3.15 million to 29 projects, including eight land conservation/natural resource projects, which received $1.47 million. More than 100 applications were received totaling $21 million.[27] Of the eight projects, four were specifically for the protection of drinking water resources including the 295-acre Westwood Park in Nashua, adjacent to the public water supply, and the 836-acre Bear Pond in Canaan, a forested parcel important for groundwater recharge for Lebanon's sole water supply.[28]

During the second round of grants, $3.792 million was awarded to 31 communities, including 14 land conservation projects. Demands far exceed available grant funds, with a total of 70 communities submitting applications

[26] MDFA. APR Program.
[27] www.lchip.org/IP%20%20%release.htm
[28] "LCHIP Grant Round One recipients." Citizens for New Hampshire Land and Community Heritage

seeking $12.6 million. Water supply protection was again an important criterion. The town of Merrimack was awarded a $175,000 grant to support the acquisition of Greens Pond.[29]

To date, Milford is the only one of the five towns in the Squannacook-Nissitissit region that has been awarded an LCHIP grant. Milford received $175,000 towards the purchase of an easement on 32-acre Ferguson Farm. The total cost of the project was $530,000.

During the fourth round, 86 proposals have been received from 65 communities seeking $16.23 million, including 41 land conservation/natural resource projects seeking $10.1 million. The fourth grant round includes the following proposals from communities in the Squannacook-Nissitissit region: Hollis: Woodmont Peacock Orchard request for $200,000 and Mason: Fifield Tree Farm Conservation Easement request for $54,000. [30]

With a new governor to take office in January, supporters of LCHIP are concerned that the program may have difficulty retaining its current level of funding, let alone full funding at $12 million per year.[31]

Drinking Water Land Conservation Grant Program

The Drinking Water Land Conservation Grant program was developed in order to help protect public drinking water supplies that were threatened by development. A 1998 study by the Society for the Protection of New Hampshire Forests showed that only 11% of source water protection areas were conserved.

The Drinking Water Land Conservation Grant program provides grant funding to municipal or non-profit water suppliers for the purchase of land or conservation easements critical to their water quality. The program provides grants equal to 25% of total project costs, with grants totaling $1.5 million annually statewide. Within the Squannacook-Nissitissit region, Hollis is the only town that has received a Drinking Water grant. In 2001, the town received a grant for $107,000 to protect 95 acres.

2. Direct State Land Acquisition

The state of New Hampshire acquires land directly through the Division of Forests and Lands, a unit of the Department of Resources and Economic Development. According to figures obtained by the Department, between 1997 and 2002, the state acquired more than 36,700 acres, of which 34,000 acres were protected through conservation easement. A total of 20 different properties have been protected. The state has been very successful in leveraging its funds, with state spending of $1.8 million, leveraged by an additional $8 million in federal and private funds. The vast majority of the acquisitions were small, with two acquisitions – Bunnell Mountain in Stratford and Pond of Safety in Randolph— comprising nearly 29,000 acres.[32] There were no direct state acquisitions recorded over the past five years in the Squannacook-Nissitissit towns covered in this report.

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[29] LCHIP Awards $3.792 million in Grants to 31 Communities. http://www.lchip.org/031102pressrelease.htm
[30] LCHIP Proposals Received – Grant Round 4. http://www.lchip.org/proposalsround4.htm
[31] "Environmentalists fear for LCHIP." Concord Monitor. Amy McConnell. October 11, 2002.
[32] NH Department of Resources and Economic Development.

Federal Funding Options

Under the heading – "Federal Funding" – there are two distinct types of funding. The first are grants awarded directly to states, which provide wide latitude to the states for determining how to spend the funds, in accordance with federal program rules. These will be referred to as "State Directed." The second group of federal programs entails the federal government making direct grants to local recipients, typically local governments. Decision making in these "Direct Federal Grant" programs resides at the federal level.

State Directed Federal Grants

Under the Clean Water Act, the U.S. Environmental Protection Agency (EPA) funds three water quality programs, with the Clean Water State Revolving Fund (CWSRF) by far the largest.

1) Clean Water State Revolving Fund (Section 212): The CWSRF provides loans for water quality improvements and has traditionally been used for wastewater treatment upgrades, although some states have used funding for land conservation. States were awarded $1.35 billion in 2001 and have $34 billion in total loan pools.

2) Nonpoint Source Program (Section 319): Provides grants for projects that address nonpoint source pollution, such as BMPs (best management practices) implementation, restoration and public education. On a very limited basis, Section 319 has been used for land conservation. Funding for 2002 totals $237.5 million.

3) National Estuary Program (Section 320): Funds projects that protect or improve estuaries.

In addition, the EPA awards grants to states to fund their Drinking Water State Revolving Funds (DWSRF). State DWSRFs provide loans and other assistance to eligible public water systems to finance the costs of infrastructure projects, including land acquisition. Up to 15% of the funds can be set-aside to fund source water protection activities, including land acquisition, although only 10 percent may go to a single purpose.

Clean Water State Revolving Fund (CWSRF)

Under the CWSRF, the EPA provides annual grants to states that match the capitalization grants with 20 percent of their own funds. States use these capitalization grants to provide loans (grants are not permitted) to public and private borrowers, with a maximum term of 20 years. States may pool the federal capitalization grant with other funding and can also issue bonds using pool funds.

Clean Water SRF Investment
1987 - 2001

	$ billions
Federal Capitalization Grant	$ 18.3
State Contributions	$ 3.8
Leveraged Bond Proceeds	$ 14.4
Subtotal	$ 36.5
Less Debt Service Reserve	*$ (4.3)*
Total Net SRF Investment	$ 32.2

Since the CWSRF Program began in 1987, the federal government has provided $18.3 billion in capitalization grants, which have been matched by $3.8 billion in

state contributions (See figure at right). Nearly half the states have used these federal and state funds to back the issue more than $14 billion in bonds to fund projects and to create debt service reserves. In total, more than $32 billion in funding has been created through the CWSRF program since it began.[33]

CWSRF Innovations: Land Conservation

States file an intended use plan with the EPA that clearly spells out how they will allocate their CWSRF funds. Since the program's inception, most states have used their CWSRF primarily for wastewater treatment plants. However, since 1995, more funding has been shifted into nonpoint source pollution control and estuary management, with roughly six percent of annual funds going for non-point source pollution, up from one percent in prior years.[34] In particular, several states have used their CWSRF to help local governments and nonprofits purchase watershed land, restore watersheds and reduce flooding.

New York: In recent years, the state of New York has made several significant loans to help local governments protect critical drinking watershed lands through its Clean Water State Revolving Fund. The City of New York has received a $27 million CWSRF loan to acquire land within the Delaware/Catskill water supply. In order to avoid building a new filtration plant, New York City will spend $1 billion over a 10-year period for watershed land acquisition.[35] The state's CWSRF also made a $75 million loan to Suffolk County to protect land within the Pine Barrens, the sole source aquifer for 2.6 million people.[36]

Napa County, California: The Napa County (CA) Flood Control and Water Conservation District is using the CWSRF to protect the Napa River from future flooding by reconnecting the river with its historic flood plain. To accomplish this, more than 300 parcels of land will be acquired along roughly seven miles of the river. The County plans to finance its $87.5 million share of the $220 million total by borrowing from the state's CWSRF and repaying it through a voter-approved ½ cent local sales tax.[37]

Ohio: With funding from the federal CWSRF loan program, Ohio EPA has created a new program (Water Resource Restoration Sponsor Program) that combines traditional wastewater treatment with water source restoration through land conservation. Under the provisions of the program, a community would apply, as usual, to the CWSRF program for a wastewater treatment loan and also enter into a sponsorship agreement with a land conservation partner (land trust or park district) to grant them the money to fully restore a watershed resource (not necessarily in the same watershed). A community that is chosen to participate by Ohio EPA would then borrow extra money to facilitate the restoration project, but in exchange its interest rate on the combined

[33] Clean Water SRF Investment, by State. EPA Clean Water State Revolving Fund. http://www.epa.gov/r5water/cwsrf/inva.htm
[34] Clean Water SRF Supplemental Data Report: Total Annual NPS Project Assistance as Percent of Total WWT, NPS and Estuary Project Assistance. U.S. EPA. http://www.epa.gov/r5water/cwsrf/pdf/supnps.pdf
[35] "New York City Applies for $27 Million CWSRF Loan for Watershed Land Acquisition." CWSRF Activity Update. U.S. EPA
[36] "New York CWSRF Makes $75 Million Land Acquisition Loan in Pine Barrens." CWSRF Activity Update. U.S. EPA.
[37] "Napa County 'Living River Strategy' to Provide Flood Protection.." CWSRF Activity Update. U.S. EPA.

project would be reduced (at present from 3.8% on a wastewater only loan to 0.2% on a combined project) to yield a repayment cost below the wastewater project alone.

Massachusetts CWSRF

The Massachusetts Water Pollution Abatement Trust was established in 1987 pursuant to the Clean Water Act (Section 212) to provide below market interest rate loans to local governments and eligible private entities for certain water quality capital projects. The Intended Use Plan (IUP) includes eligible projects such as wastewater treatment, infiltration inflow, collection systems, and nonpoint source management. The IUP does not mention land conservation as an eligible use. The Massachusetts Treasurer manages the Trust in conjunction with the Department of Environmental Protection (DEP).

During FY 2001, Massachusetts received $45.2 million from a Federal Capitalization Grant and will provide the required 20% match of $9.1 million from the state General Fund. When combined with leveraged bond proceeds of $246.9 million, the Water Pollution Abatement Trust will have a total of $301 million available in FY 2001. However, with a debt service reserve of $98 million, the net proceeds available for lending totaled$203 million.[38]

New Hampshire CWSRF

The New Hampshire state revolving fund loan program was created by the New Hampshire Legislature in 1987 and provides low-interest loans to help municipalities with projects such as wastewater treatment projects, landfill closures, public water supply improvements and brownfields cleanups. A major focus of the SRF since 1995 has been to assist communities with the cost of closing unlined municipal solid waste landfills, with nearly $100 million awarded for closing these landfills.[39] The state of New Hampshire does not use its SRF to make loans for land conservation.

According to the U.S. EPA, in Fiscal 2001, New Hampshire received $13.4 million from the EPA in CWSRF grants; there was no state matching contribution provided. (Note: In fiscal 1999, the state received no federal grant, yet $2.7 million in state matching contributions were made). Within the Squannacook-Nissitissit watershed, Greenville is the only community to receive a Clean Water SRF loan (for a wastewater treatment plant), although Milford had received an EPA Wastewater Treatment Facility Grant, before these were converted to loans in the 1980s.[40]

Drinking Water State Revolving Fund (DWSRF)

Under the Safe Drinking Water Act Amendments of 1996, the EPA is authorized to provide grants to states to capitalize Drinking Water State Revolving Funds. The State Revolving Funds provide loans and other assistance to eligible public water systems to finance the cost of infrastructure projects. States must file an intended use plan describing how they will use the proceeds and must match

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[38] Massachusetts Annual Clean Water SRF Investment. U.S. EPA
[39] ibid
[40] ibid.

20% of the grant. Up to 15% of the funds can be set-aside to fund source water protection activities, including land acquisition.[41] However, no more than 10% of the set-asides can be used for a single type of activity. Grants are allotted to each state based on needs identified in the most recent Drinking Water Needs Survey.

Maine Drinking Water Program

Maine's Drinking Water Program provides loans to public drinking water systems using proceeds from the DWSRF capitalization grant. According to the intended use plan (IUP) filed for 2001/2002, one of the long term goals of Maine's DWSRF is to create and maintain a land acquisition fund in perpetuity. Maine has roughly $765,000 in a separate revolving account established for land acquisition from prior year uncommitted funds and loan repayment proceeds. No additional money has been allocated in the current IUP since the current account balance is deemed adequate to meet all anticipated loan requirements until the next grant award. [42]

Massachusetts' DWSRF Program/New Hampshire DWSRF Program

Massachusetts

Between fiscal years 1998 and 2002, Massachusetts received $145 million in federal DWSRF grants, or 3.8 percent of the total $3.99 billion provided to the states.[43] Each state receives a minimum of one percent of the total, based on a needs assessment. During fiscal 2002, Massachusetts will receive $28.8 million, or 3.58% of the $800 million available for state grants.[44]

Under the provisions of the DWSRF, the Commonwealth of Massachusetts could allocate up to 10 percent of its DWSRF annual grant for land acquisition for drinking water source protection. According to U.S. EPA, between fiscal years 1997 and 2001, Massachusetts did not allocate any of its DWSRF for this purpose. There is no mention in the FY 2002 Intended Use Plan to set aside any funding for land acquisition. With the annual federal DWSRF grant averaging $29 million over the past five years, allocating 10 percent for land acquisition would yield $2.9 million per year; at five percent, the total would be $1.45 million.

New Hampshire

Between fiscal years 1997 and 2002, New Hampshire received $38.2 million in federal DWSRF grants, or 1 percent of the total $3.99 billion provided to the states.[45] Each state receives a minimum of one percent of the total, based on a

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[41] SDWA Sec. 1452 (k)
[42] DWSRF 2001/2002, Intended Use Plan. State of Maine Department of Human Services Drinking Water Program. 10.18.01
[43] Distribution of DWSRF Funds . US EPA Ground Water and Drinking Water. http://www.epa.gov/safewater/dwsrf/allot.html
[44] Allotment of DWSRF Funds. US EPA Ground Water and Drinking Water. http://www.epa.gov/safewater/dwsrf/allot02.html
[45] Distribution of DWSRF Funds. US EPA Ground Water and Drinking Water. http://www.epa.gov/safewater/dwsrf/allot.html

needs assessment. During fiscal 2002, New Hampshire will receive $8 million, or 1% of the $800 million available for state grants.[46]

Under the provisions of the DWSRF, New Hampshire could allocate up to 10 percent of its DWSRF annual grant for land acquisition for drinking water source protection. According to U.S. EPA, between fiscal years 1997 and 2001, New Hampshire did not allocate any of its DWSRF for this purpose. There is no mention in the FY 2002 Intended Use Plan to set aside any funding for land acquisition. With the annual federal DWSRF grant averaging $7.6 million over the past five years, allocating 10 percent for land acquisition would yield $760,000 per year; at five percent, the total would be $380,000.

Clean Water Act Section 319 (h) -- Nonpoint Source Pollution

In 1987 Congress recognized that state and local water authorities needed assistance with developing and implementing measures to control nonpoint source (NPS) pollution. The enactment of Section 319 of the Clean Water Act (CWA) established a national program to control nonpoint sources of water pollution, as well as a means to help fund state and local implementation of nonpoint source management programs.

Under the provisions of Section 319, land acquisition can be used as a nonpoint source management tool. In EPA Region 4 (Southeastern U.S.),[47] fifteen land acquisition projects were approved between fiscal years 1995 and 1999, at a total cost of $5.2 million. Two of these projects --totaling $1.47 million-- were subsequently canceled. EPA Region 4 has been the leader among the 10 EPA regions across the country in utilizing Section 319 for land acquisition, although even here there have been a number of challenges that have hampered its use. These include the cost effectiveness of land acquisition vs. other Best Management Practices, as well as the difficulty quantifying water quality improvements. To date, no EPA 319 grants have been awarded in Massachusetts or New Hampshire for land conservation.

Direct Federal Grants

Forest Legacy Program

Nashua River Greenway - Forest Legacy Program

	Acres	FLP Request	
Pumpkin Brook	137	$	250,000
Ballard Hill	33	$	57,500
Mushcopauge Br.	100	$	200,000
Arn-How Farm	100	$	250,000
	370	**$**	**757,500**

The Forest Legacy Program (FLP) was originally authorized in the 1990 Farm Bill and provides matching federal funds to states in order to help them obtain conservation easements on working forests to protect them from conversion to non-forest uses. The FLP is funded on an annual basis through Congressional appropriation, not through multi-year Farm Bills. In recent years, funding for the FLP has soared from $7 million in

[46] Allotment of DWSRF Funds. US EPA Ground Water and Drinking Water. http://www.epa.gov/safewater/dwsrf/allot02.html

[47] EPA Region 4 includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee.

FY 1999 to $60 million in FY 2001. President Bush's FY 2003 budget includes a recommendation for $70 million in funding.[48]

States participate in the FLP on a voluntary basis, by submitting a state plan and assessment of need (AON) to the Secretary of Agriculture. According to the 2001 Forest Legacy Program National Report, there are 24 states and territories actively participating and another 18 states -- that are developing plans and have not currently acquired land under the program. [49] Both Massachusetts and New Hampshire are longtime participants in the Forest Legacy Program. The Forest Legacy Program requires a non-federal match of 25 percent of the total project cost.

Massachusetts

Massachusetts prepared its Assessment of Need in 1993, which included five Forest Legacy Areas, including the Nashua River Greenway. As shown in the chart below, according to the Massachusetts Department of Environmental Management, there have been four projects that have received approval by the forest legacy program. One project has been completed —Pumpkin Brook Link —and one —Ballard Hill—was due for completion in June 2002. Two other acquisitions are pending completion. The four projects will protect 370 acres at a cost of $758,000. Statewide, there have been 30 forest legacy parcels approved, totaling 6,215 acres and costing $13.7 million; ten have been completed so far protecting 1,400 acres at a cost of $3.7 million.[50]

> **Pumpkin Brook Link**: This 136-acre project within the Nashua River Greenway Forest Legacy Acre was completed in August 2001 and provides a link between the Squannacook Wildlife Management Area and the Hunting Hill Conservation Area. Funding included $250,000 from Forest Legacy, $250,000 from the state's Self-Help grant program and $250,000 from the town of Shirley. The Pumpkin Brook Link project is part of a larger effort to create a 2,300-acre wildlife corridor.[51]

New Hampshire

New Hampshire's Assessment of Need was approved in 1994, and focuses on the protection of large blocks of forest land, the expansion of existing protected forest and to provide for traditional forest uses. There are Legacy Areas across the state including the majority of the Squannacook-Nissitissit sub-basin. According to the USDA, as of 12/31/01 there were 16 projects completed statewide, totaling 41,425 acres and costing $5.57 million in Forest Legacy payments. The vast majority of the completed projects have been in northern Coos County. There were four projects in progress with FY02 funding, including one in Hillsborough County (part of the sub-basin is in the county), with a potential future project –Island Pond—also partially within Hillsborough

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[48] "Purchase of Development Rights: Conserving Lands, Preserving Western Livelihoods." Western Governor's Association, the Trust for Public Land, and National Cattlemen's Beef Association. June 2002. Pages 20-21.
[49] Forest Legacy Program National Report 2001. Page 1-3.
[50] Massachusetts Forest Legacy Program. Approved Tract Summary.
[51] Pumpkin Brook Link Fact Sheet. USDA Forest Service

County. [52] None of the completed or potential projects appear to lie within the Squannacook-Nissitissit sub-basin.

Farmland Protection Program

With passage of the new 2002 Farm Bill, the Federal government will have much greater ability to serve as a partner in the purchase of development rights (PDR), or conservation easements, on productive agricultural land. The new Farm Bill provides a ten-fold increase in funding available for the U.S. Department of Agriculture's Farmland Protection Program (FPP), making $600 million available between fiscal 2002 and 2007, up from $53 million in the prior Farm Bill. Between 1996 and 2002, more than 108,000 acres were protected through PDR as a result of the program.[53]

In fiscal year 2003, the FPP will provide $100 million in grants to states, local governments and nonprofit conservation groups to purchase conservation easements on agricultural land. Grants for 50 percent of the cost of a permanent conservation easement (PDR) will be awarded on a competitive basis, according to national and state criteria.[54]

D. Recommendations

If the effort to protect land within the Squannacook-Nissitissit sub-basin is to be considered a success, it is essential to move beyond assessing priorities and actually protect land. In order to accomplish this goal, a range of funding options must be utilized to create a "funding quilt" that will sustain land acquisition both in the near term and over the long term. The specific recommendations will help draw upon a combination of local, state and federal funding to protect land in the Squannacook-Nissitissit Watershed.

LOCAL FUNDING

1) **Seek passage of CPA in Squannacook-Nissitissit communities**: The Community Preservation Act offers the five Massachusetts communities the ability to create a dedicated property tax for land conservation (along with affordable housing and historic preservation) and to receive matching grants from the state. To date, three of the five towns –Ashby, Groton and Shirley-- have been unsuccessful in their efforts, and the remaining two – Pepperell and Townsend—have not taken action. Prior to considering (or reconsidering) CPA, the communities might seek assistance from the CPA Coalition, which has worked with many of the 58 cities and towns that have successfully passed CPA.

2) **Create local conservation funds in New Hampshire communities:** Two communities in the New Hampshire part of the sub-basin —Brookline

[52] New Hampshire State Forest Legacy Activity. USDA. 12/31/01.
[53] 'Purchase of Development Rights: Conserving Lands, Preserving Western Livelihoods." Western Governors' Association, the Trust for Public Land and National Cattlemen's Beef Association. June 2002. Page 19-20.
[54] Ibid.

and Hollis— successfully passed bond measures in 2002. In addition, four communities have dedicated some of their land use change tax (LUCT) revenues to local conservation funds (Brookline and Mason at 100%; Hollis and New Ipswich at 50%). For those communities in the Squannacook-Nissitissit sub-basin that have not sought either route, they might consider one passage of a local bond measures or reallocation of LUCT revenues. It should be noted that LUCT revenues can fluctuate significantly from year to year and, as such may not be the most reliable revenue source.

STATE FUNDING

1) **In a changed political climate, local supporters of land conservation must advocate for continued statewide conservation funding:** Over the past few years, a number of local communities in this region have benefited greatly from state land conservation grants – particularly the Self-Help program as well as direct state land acquisition. The recently passed Environmental Bond Bill offers the promise of substantial funding (est. $245 million over 3-5 years) although the change in gubernatorial administration, coupled with a tough fiscal climate could lead to a reconsideration of ability to fund land conservation. It is essential that local land conservation supporters provide the necessary leadership to encourage the Romney administration to maintain a strong commitment to land conservation. In New Hampshire, both the LCHIP and the DES Water Supply Grant programs have provided important funding to local conservation projects in the Squannacook-Nissitissit sub-basin. In particular, LCHIP has been inundated with requests that could not be filled at the current $6 million annual level of funding. Despite the LCHIP program's popularity, there is no guarantee that funding will even continue at the same level, with a new governor in place who may have different priorities. It will be essential that local supporters of conservation funding programs make their case to the Governor Benson and the Legislature to continue supporting these programs.

2) **Provide more generous incentives as part of the NH Drinking Water Land Conservation Program:** New Hampshire's Drinking Water Land Conservation grant program provides grants up to 25% of the total cost of a land conservation project. As cited above, the first priority for the Water Land Conservation Program is to ensure that funding continues at a minimum of $1.5 million over two years (the current funding level). It would also be preferable to increase the matching percentage from 25% to 50% in order to make the program more accessible to communities that may not have substantial funds for a match.

FEDERAL FUNDING

1) **Innovate using state revolving funds:** Both revolving funds offer the promise of substantial funding for land acquisition, but this has not been realized. Given the flexibility of the CWSRF, Massachusetts and New Hampshire should consider creating a program along the lines of the Ohio EPA's program to pair wastewater treatment projects with land conservation/restoration projects. Alternatively, a set-aside program under CWSRF could be used for land acquisition around the state. To expand

funding for drinking water protection, inclusion of land conservation in the Intended Use Plan and setting aside up to 10% of funding should be considered.

2) **Forest Legacy Program:** In Massachusetts, the Nashua River Watershed Association has played a leading role in helping obtain federal Forest Legacy funds for a series of projects for the Nashua River Greenway. This effort should be applauded and should continue. In New Hampshire, there have been some recent Forest Legacy Projects in the southern part of the state, although none in the Squannacook-Nissitissit region. Although FLP funding has generally gone to the northern forest, it may be possible to work with New Hampshire's Member s of Congress to try and get some projects from the Squannacook-Nissitissit region.

3) **Farmland Protection Program:** With the significant increase in available funding available under the newly signed Farm Bill, local officials and/or nonprofit conservation partners should apply for FPP grants. Since these grants are competitive and require a 50 percent match, local governments might draw upon funds included in previously successful bond measures. The ability to compete successfully for FPP grants underscores the need for local funding, particularly in Massachusetts towns that have not passed CPA to date.