9. PLAN IMPLEMENTATION

9.1 Plan Oversight

The Spruce Creek WBMP Steering Committee, along with the towns of Kittery and Eliot, will need to continue to meet regularly and be diligent in coordinating resources to implement practices that will reduce NPS pollution in the Spruce Creek watershed. This task cannot be accomplished alone, and will require the support of a number of watershed groups including the SCA, Kittery Land Trust, York County Soil and Water Conservation District, Maine DEP, schools, and individual landowners.

The towns of Kittery and Eliot will take the lead on ensuring that the action items in this plan are initiated. This plan is a product of watershed stakeholders from SCA, local land trusts, nonprofits, municipal and state government, and the community. As such, the responsible party for each action item may be the watershed towns or any one of these partnering stakeholders.

The formation of smaller action committees will result in more efficient plan implementation. Suggested action committees are as follows:

- **Buffer/Invasives and Conservation Lands**
- **Water Quality Assessment**
- **Stormwater/Impervious Cover and Bacteria Reduction**
- **Fundraising/Grantwriting (includes two members of each of subcommittees 1-3)**

These action committees would be charged to implement projects and actions with agency and watershed organization support.

9.2 Action Plan

The SCA Steering Committee will work toward improving and implementing an Action Plan which consists of action items within five major categories: Buffers and Invasives, Bacteria Reduction, Impervious Cover and Stormwater, Conservation Lands, and Water Quality Assessment (Table 9.2.1). This Action Plan was developed to follow-up on objectives developed in the 2005 watershed survey, and from feedback received by 30 community members at the 2006 Spruce Creek Watershed Community Forum. Forum participants (local town officials, watershed landowners, and SCA members) formed small groups to discuss critical watershed issues related to water quality, wildlife habitat, recreation, and land development issues that need to be addressed in the watershed. Participants then prioritized potential watershed objectives. These ideas have been incorporated into the Action Plan. This Action Plan outlines responsible parties, potential funding sources, approximate costs, and an implementation schedule for each task within each of the five categories.

Buffers and Invasives

The buffer action items place a strong emphasis on improving protection of shoreland vegetated buffers,

to meet or exceed the existing state guidelines requiring that no more than 40% of existing woody vegetation in the 250 foot wide shoreland zone is removed. Action items include encouraging stewardship through buffer planting demonstrations and encouraging strict enforcement of Riparian Zoning Laws. Additionally, watershed towns will coordinate with local land trusts in acquiring land within riparian zones. In order to reduce invasive plant species, action items in this category also include the removal of invasive species in high priority areas and encouraging the use of native species and beneficial habitat types. Additional actions include installing signs at the watershed boundary, holding Creek clean-up days, and enforcing ATV laws.

Bacteria Reduction

The bacteria reduction component of the Action Plan focuses on reducing the effects of septic systems on Spruce Creek through educating citizens and identifying problem sites. Actions also include working with watershed residents to reduce the impacts of livestock and pets.

Impervious Cover and Stormwater

The Action Plan focuses on reducing the impacts of impervious cover and stormwater through the education of residents, developers, and business owners. Actions include encouraging residential stormwater practices and awarding businesses using IC reduction practices, as well as holding informational seminars for developers.

Conservation Lands

The conservation lands component of the Action Plan requires continued cooperation between watershed towns, local land trusts, and project stakeholders to strategize land protection on a watershed level and develop an open-space plan for the watershed. Tasks include encouraging "green infrastructure" at the municipal level and looking into allowing greater public access to open space. Additionally, the watershed towns will coordinate with local land trusts in acquiring land within riparian zones.

Water Quality Assessment

While SCA has a strong water quality monitoring component, additional action is required to monitor the health of Spruce Creek on a long-term basis. This requires seeking funding to increase efficiency and obtain additional equipment such as continuous data loggers (datasondes). Additional stormwater sampling in the spring and fall may include both high/low tide and wet/dry monitoring. To better prioritize monitoring efforts and monitor plan effectiveness, it is also important to continuously link management strategies to measurable results. Results would be displayed on the Town of Kittery website as well as the websites of other stakeholders where appropriate. Additional actions include creating photo documentation of baseline shoreland conditions, researching the effects of the Portsmouth Naval Shipyard and the Piscataqua River on Spruce Creek, and establishing a chemical spill assessment program.

Funding

In order to successfully implement the above actions, it is necessary to continuously seek out funding sources. Potential funding sources are listed in **Section 9.4**.

Table 9.2.1. *Spruce Creek Action Items*

Action Items	Priority	Responsible Party: SCA	Responsible Party: YCSWCD	Responsible Party: Land Trusts	Responsible Party: Towns	Responsible Party: Schools	Responsible Party: Landowners	Funding Source: Maine DEP 319	Funding Source: Other Federal	Funding Source: Other State	Funding Source: Towns	Funding Source: Private	Funding Source: Volunteer	Costs (Approx.)	Schedule
BUFFERS & INVASIVES															
Encourage stewardship through buffer planting educational demonstrations. Hold volunteer work parties to install BMP demos at high profile sites. Hold neighborhood meetings to educate landowners about shoreland buffers.	H	x	x			x	x				x	x	x	$10,000/yr	Summer 2008 and ongoing
Encourage stricter enforcement of riparian zoning laws, utilizing alternative penalties such as replantings and mandatory community service in lieu of fines.	M	x			x			x					x	N/A	Immediately and ongoing
Develop an incentive program for voluntary buffer increases.	M	x			x		x	x			x		x	$2,000/yr	2008 and ongoing
Work with local nurseries to get plan discounts and donated time for buffer plantings.	M	x					x						x	N/A	Summer 2008 and ongoing
Install watershed signs along road to delineate watershed boundary (example: "You are entering the Spruce Creek Watershed").	M	x	x		x			x			x		x	$500/yr	2008 and ongoing
Develop informational materials to educate citizens and businesses about new shoreland zoning rules.	M	x	x		x						x	x	x	$500/yr	2009
Promote beneficial habitat types and the use of native species and discourage non-beneficial habitat types.	M	x	x		x		x	x			x		x	$500/yr	2008 and ongoing
Utilize resources such as TV, newspaper, SCA website, and public meetings for watershed education.	H	x				x	x				x	x	x	$500/yr	Immediately and ongoing
Coordinate efforts with volunteers and town officials on removal of invasive species, beginning with high priority sites from 2005 Habitat Survey.	M	x	x				x				x	x	x	$10,000/yr	2008 and ongoing
Coordinate Creek clean-up days to remove trash and educate citizens.	M	x	x		x	x		x			x	x	x	$500/yr	Annually, beginning 2008
Enforce ATV laws.	M	x		x	x		x						x	$2,000/yr	Beginning 2008

Table 9.2.1. *Spruce Creek Action Items*

Action Items	Priority	Responsible Party: SCA	YCSWCD	Land Trusts	Towns	Schools	Landowners	Funding Source: Maine DEP 319	Other Federal	Other State	Towns	Private	Volunteer	Costs (Approx.)	Schedule
BACTERIA REDUCTION															
Hold "septic socials" to inform residents about the relationship between septic systems and water quality.	H	x	x		x		x	x			x	x	x	$5,000/yr.	Beginning 2008
Establish a septic system tracking program; identify homes not connected to the sewer system; identify failing septic systems.	H	x			x		x	x		x	x		x	$20,000	Beginning 2008
Assess potential impacts of agriculture in the watershed by surveying the locations and numbers of livestock and horses. Work with farmers on improved animal management practices.	H	x	x				x				x		x	$5,000	Beginning 2008
Prioritize sites for tidal restriction removal.	M	x			x				x	x	x		x	$25,000/yr.	Beginning 2008
Promote pet waste management (example: establish pet walking zones for shoppers within the commercial district).	H	x			x		x				x	x	x	$2,000/yr.	Immediately and ongoing
IMPERVIOUS COVER & STORMWATER															
Encourage residential stormwater prevention practices (e.g. rain gardens/barrels) and educate homeowners about lawn alternatives.	H	x	x		x			x		x	x	x	x	$3,000/yr.	Immediately and ongoing
Conduct Public outreach and encourage more business involvement.	H	x					x	x			x	x	x	5,000/yr.	Beginning 2008
Develop a comprehensive stormwater mitigation plan.	H	x	x		x		x	x	x	x	x	x	x	$75,000	Beginning 2008
Create additional developer incentives.	H	x				x	x				x		x	$2,000/yr	Beginning Summer 2008 and ongoing
Coordinate with Town Planning Departments to hold pre-development/permitting seminars for developers.	M	x			x						x		x	$5,000/yr	Beginning 2009
Recognize / award businesses using IC reduction practices	M	x			x					x	x			$1,000/yr	Beginning 2008
Inventory % lawn area in the watershed to determine the overall IC impacts.	M	x	x		x						x		x	$5,000	2009
Create cost estimates for existing stormwater retrofit plan.	M	x	x		x			x	x	x	x			$50,000	Beginning 2008
Conduct ordinance review to determine if requirements provide adequate protections.	M	x				x	x					x	x	$1,000	Beginning 2008
Visit UNH Stormwater Center to learn about BMPs.	H	x					x						x	N/A	Immediately
Identify available resources for stormwater retrofit funding	M	x	x		x			x		x	x			$2,000	Beginning 2008
Continue working with MDOT's SWQPP program.	M				x									N/A	Ongoing

Table 9.2.1. *Spruce Creek Action Items*

Action Items	Priority	Responsible Party: SCA	YCSWCD	Land Trusts	Towns	Schools	Landowners	Funding Source: Maine DEP 319	Other Federal	Other State	Towns	Private	Volunteer	Costs (Approx.)	Schedule
CONSERVATION LANDS															
Coordinate with local land trusts to acquire land to protect riparian areas	H		x	x	x		x			x	x	x	x	N/A	Beginning 2008
Work with open space committee and land trusts to strategize protection of watershed open space and develop a watershed-based open space plan.	H	x		x	x		x				x		x	$15,000	Beginning 2008
Encourage "green infrastructure" to reduce municipal costs.	H	x	x	x	x								x	N/A	Summer 2007 and ongoing
Look into allowing greater public access to watershed open spaces (and consider the potential negative effects of doing so).	M	x		x	x		x			x	x		x	$500	Beginning 2008
Use conservation or open space subdivisions to reduce numbers of lots in shoreland zone.	M	x		x	x		x				x		x	N/A	Beginning 2008
WATER QUALITY ASSESSMENT															
Conduct stormwater monitoring program (e.g., wet-dry / hi-lo tide bacteria sampling).	H	x	x					x	x		x		x	$20,000/yr	Beginning spring 2008
Conduct baseline sediment study (including benthic communities).	H		x		x					x			x	$20,000	2008-2009
Link management strategies to measurable results and provide periodic updates on SCA website.	H	x			x		x	x					x	N/A	Immediately and ongoing
Create photo documentation of baseline shoreland conditions.	H	x	x		x		x				x		x	$500/yr	Immediately and ongoing
Research impact of Navy yard and Piscataqua on Spruce Creek and look into the need for related sampling.	M	x			x				x	x			x	$25,000	Beginning 2008
Explore funding options to increase volunteer efficiency and purchase new monitoring equipment (e.g. datasondes and webcam).	H	x			x		x			x	x		x	$30,000	Immeditaly and ongoing
Create watershed database for use with Town GIS data layers.	H	x			x							x	x	N/A	Beginning 2008
Establish chemical spill assessment program.	M	x			x				x	x	x		x	$10,000	2009