

NEW MEADOWS RIVER ACTION PLAN - UPDATED MARCH 2008

Objective 1: Eliminate and reduce existing sources of polluted runoff, and prevent future problems from occurring throughout the watershed.			
Priority	Action	Lead Organization	Partners / Stakeholders
HIGH	1. Remediate selected erosion problems in lower watershed with volunteers and Public Works Departments. A rapid groundtruthing of old survey of the lower River may be needed before any implementation work can begin.	CCSWCD; Brunswick or Harpswell	Cumberland County SWCD, DEP, Bath, Brunswick, Harpswell, Phippsburg, West Bath
	2. Conduct a land use hotspot inventory to identify industrial storm water, high traffic areas, earth-moving, etc. Divide into surface and ground water impacts. For surface water impacts, offer assistance to land owners of high impact sites. For groundwater impacts, 1) Inventory known contamination sites, 2) Investigate potential impact to NMR, and 3) Work with land owners to reduce impact.	DEP could use an existing GIS layer to ID previous contaminant sites.	CCSWCD
MED	3. Develop a plan for remediation of pollution sources on private property using grants, technical assistance site visits, and outreach such as brochures, website, and posters.	?	Municipalities
	4. Develop percent impervious cover for each sub-watershed and identify priority areas. Use data in outreach initiatives promoting improved land use.	DEP	Municipalities; SRRRI
	5. Work with municipalities to adopt SPO LID ordinances and ensure existing ordinances don't prohibit LID. 1) Inventory existing ordinances to make sure they don't prohibit/do allow for LID. 2) Use new LID manual to conduct outreach.	NEMO	SRRRI, DEP
LOW	6. Collaborate with municipalities to ensure publicly owned lands are modeling Best Management Practices for erosion control, riparian buffers, etc.	DEP; CCSWCD	Municipalities
	7. Investigate opportunities to implement the Bayscaping/ Yardscaping program in the NM River. Conduct a needs assessment to identify targeted audience and potential impacts.	CCSWCD	DEP, Municipalities

Objective 2: Improve productivity of shellfish harvests by eliminating pollution sources, including overboard discharges, pursuing reclassification of shellfish harvesting areas, and promoting improved management practices.

Priority	Action	Lead Organization	Partners / Stakeholders
HIGH	1. Update shoreline surveys in the New Meadows River. HOW: Work with DMR to develop a training of municipal officials to carry out shoreline surveys in the New Meadows River.	DMR	DMR, municipalities, Casco Bay Clam Team
	2. Conduct a pilot study to look at the application of thermal imagery to identify water pollution sources such as failing septic systems in the New Meadows River (Harpwell Cove noted as an example).	Town of Brunswick	Casco Bay Clam Team
	3. Remove remaining Overboard Discharges adjacent to high value clam flats. HOW: Research status of OBDs. Work with private landowners and municipalities to replace OBD's adjacent to high productivity flats. Educate landowners about state funding opportunities.	DEP?	Municipalities
MED	4. Follow-up on ongoing research on shell redistribution onto flats as a means of increasing flat productivity. HOW: Meet with Mark Green of St. Joseph's on his research in this field. If appropriate, chose site in NMR to apply crushed shell.	Town of Brunswick?	St. Joseph's College, Casco Bay Clam Team, Municipal shellfish committees

Objective 3: Conduct research and monitoring to better understand the ecological and economical dynamics of the New Meadows River Watershed ecosystem.			
Priority	Action	Lead Organization	Partners / Stakeholders
HIGH	1. Conduct a continuous 24/7 water temperature study beginning spring of 08 through the fall of 08 to document temperature variation from the lakes to Cundy's Harbor at the mouth of the New Meadows River.	Data Subcommittee	Friends of Casco Bay, Bowdoin College, GOMOOS
	2. Continue collaboration with Friends of Casco Bay volunteers monitoring in the New Meadows River. Sampling program consists of (20) sampling dates per season from (4) sites. Parameters consist of water temperature, dissolved oxygen, salinity, pH, Water Clarity (Secchi), and dissolved Inorganic Nutrients.	FOCB; Data subcommittee	Friends of Casco Bay, Town representatives, New Meadows Lake Assn, local volunteers
MED	3. Update water quality index for the New Meadows Lakes and River. Parameters include: dissolved inorganic nitrogen, dissolved oxygen, turbidity, pH, chlorophyll. [Index developed includes inorganic N and P, dissolved oxygen, pH, Secchi depth].	Data Subcommittee; FOCB	FOCB
	4. Determine the scope of the data to be collected to characterize economic resources and uses of the New Meadows River watershed. Explore funding opportunities for further study.		
LOW	5. Develop a long-range plan and identify funding to: 1) conduct study of currents in the New Meadows River; 2) determine extent to which Kennebec River and possible groundwater flows affect the exchange and circulation of the New Meadows River; and, 3) create a mathematical circulation model for the New Meadows River.	Data Subcommittee	

Objective 4: Protect, restore and improve habitat function and values, and minimize new impacts. Work with partners to prioritize future protection and restoration efforts.

Priority	Action	Lead Organization	Partners / Stakeholders	Notes
High	1. Protect fish habitat. How: Beginning with Habitat plans to identify and map trout habitat. Work with Francis Brautigam (IF&W) and Jim Stahlnecker (DEP) to identify additional fish species and habitat in the New Meadows watershed.	BwH	IFW, DEP	<i>There is some existing data for Brunswick- not sure if it covers this part of Brunswick.</i>
	2. Collaborate with existing habitat protection and restoration efforts. How: Support the efforts of Sagadahoc Region Rural Resource Initiative (SRRRI) as they work with watershed communities on open space planning (e.g., zoning, land use, and strategic conservation) to protect valuable habitat. Work with local land trusts to protect valuable habitat. Participate in the Casco Bay Habitat Restoration Committee.	BwH	SRRRI, local land trusts, Casco Bay Habitat Restoration Committee, Casco Bay Habitat Protection Committee	<i>Utilize BwH data and Focus Areas as starting point for developing conservation priorities. Coordinate efforts with eye towards In Lieu Fee program (funds targeted to BwH FA's)</i>
	3. Review relevant existing habitat restoration and protection materials (e.g., fact sheets, maps) and provide a package of appropriate materials to the New Meadows education and outreach committee for local distribution or development of press articles, etc.	NMRWP habitat subcommittee, BwH	BwH, SRRRI	<i>SRRRI is developing a regional conservation blueprint and guide book for municipal planning. BwH recently launched on-line toolbox for local conservation implementation. CBEP has Habitat Restoration fact sheet</i>
Med	4. Inventory priority organisms and significant habitat, including rare and endangered species. How: Build on work already completed by Beginning with Habitat federal and state agency partners have produced maps showing priority species and habitat for the New Meadows watershed. Work with watershed conservation commissions and land trusts to incorporate local knowledge into these maps.	?	BWH, conservation commissions, land trusts, Merrymeeting Audubon, DMR, Bowdoin College	<i>Mostly complete. Local birders/Audubon could help to ID occurrences of sharp-tailed sparrows. Need to identify local botanists (Arthur Haines?) for vascular plant info. Heron rookeries?</i>
	5. Update protected lands maps. How: Work with local land trusts and communities to ensure that information in existing maps of protected lands is up to date.	SRRRI, BTLT, Brunswick	Beginning With Habitat, USFWS, SPO	<i>Brunswick Town Planner recently updated map. SPO is working on this statewide. We may be able to get something faster by working with local partners (BTLT, Harpswell, KEC, LKRLT)?</i>
	6. Develop an inventory of restoration opportunities for the New Meadows watershed. Work to restore priority areas. How: Collaborate with Casco Bay Estuary Partnership on restoration of areas identified as potential restoration sites in their 2007 mapping and inventory of fringing marsh in the Casco Bay watershed. Identify coastal (e.g., West Bath tidal restriction) and inland wetland restoration opportunities, including developing an inventory of first order streams, stream restrictions and constrictions (check with Vicki Smith at DEP)	?	CBEP, DEP, BwH, Bowdoin?	<i>In Lieu Fee program, culvert crossings work (stream continuity), etc. Regarding New Meadows tidal flow project, dependent on outcome of tidal flow situation, put in only enough effort to make the decision, recognizing that we could fail to restore tidal flow.</i>
	7. Protect bird habitat. How: The state is revising maps of unfragmented blocks to better reflect the current state of fragmentation. Highlight unfragmented areas of shoreline and look for ways to protect those areas (key for coastal birds and other species).	BwH?	Beginning With Habitat	<i>Can work with BTLT, FOMB, LKRLT and Land forr Brunswick Future to partner in fundraising</i>
	8. Protect New Meadows habitat from non-native species. How: Participate in the Maine Marine Invasive Species Working Group. Map locations of <i>Phragmites</i> in the New Meadows watershed. Develop lists of non-native species of concern for the New Meadows watershed for inland and marine areas.	?	Maine Marine Invasives Working Group, MNAP, Bowdoin College	<i>Some work completed by upper lakes vegetation assessment. No work done below causeway? MDIFW did small scale restoration effort. Could be model. Focus on species that are earlier in invasion, control more feasible. Also make higher priority those species that have greatest biological impact on the community, even if well-entrenched.</i>
Low	9. Protect horseshoe crab habitat. How: Add local knowledge to maps produced as a result of Sue Schaler's research on horseshoe crab habitat.	?	Sue Schaler, re-establish Sherry Hansen's volunteer effort	<i>Some data available through BwH coastal model</i>

Objective 5: Explore Tidal Restriction Restoration

Priority	Action	Lead Organization	Partners / Stakeholders
High	1. Assess and investigate water temperature changes for impacts to existing natural resources.	Data Subcommittee	FOCB, Data Subcommittee
	2. Review past documents: (a) Woodlot alternatives analysis and (b) the predicted vegetation modeling following tidal restoration, and develop a summary of recommendations.	CBEP	Woodlot Alternatives
	3. Inform the full New Meadows River Watershed Project Steering Committee of all findings	Tidal restriction subcommittee	
Med	4. Identify the threatened, endangered and non-native species in the impoundments.		Bowdoin? U-ME Machias? IFW
	5. Assess risk of saltwater intrusion into wells and septic systems under various tidal restoration scenarios.		
Low	6. Identify costs and benefits of recreational, commercial and residential activities in the impoundments.		
	7. Assess the presence or absence of species that use the existing culvert to enter or exit the impoundments.		

Objective 6: Broaden public awareness of the New Meadows River, its watershed and the New Meadows River Watershed project. Expand involvement in the NMR Project.			
Priority	Action	Lead Org.	Partners / Stakeholders
High	1. Encourage greater involvement of municipal officials. HOW: 1) Annual or biennial presentations to Towns with project update and high priority actions for coming year. 2) Boat tour to highlight river and important issues to tackle. 3) Hold a second round of Road Maintenance BMP workshops for municipal officials.		NMWRP group members from each town
	2. Update NMR website and create a website maintenance plan (ID person/position responsible, such as rotating Bowdoin interns).		Bowdoin
	3. Using social marketing techniques, conduct targeted outreach aimed at changing specific behaviors. Top priorities are: 1) Update Septic Systems/minimize septic failures: Create a written document to be distributed to realtors (who give them to people buying homes with septic) and to towns (to send out with first tax bill). 2) Decrease Fertilizer use: Gather information about where this is an issue and what the problem is. Create signs and/or brochures encouraging reduction in fertilizer use. 3) Minimize Boat impacts: Quantify impacts on water quality and eelgrass and develop campaign to minimize those impacts.		CCSWCD, CBEP, DEP (those who have developed outreach materials)
	4. Hold annual public meeting (possibly in conjunction with SRRRI) to encourage communication with and involvement from watershed residents	NMRWP SC	SRRRI?
Med	5. Create a press distribution list and press strategy (including news releases)		
Low	6. Develop a logo.		
	7. Basic school outreach (e.g. provide information to teachers about the NMR, develop field trips that teachers can do with students, develop a poster for schools);		Watershed schools
	8. Develop a limited number (4) of, "You are entering the NMR watershed" signs.		

Objective 7: Implement the New Meadows River Watershed Management Plan.

Priority	Action	Lead Organization	Partners / Stakeholders
	1. Review and Update Plan: Periodically review and update. Ensure 'staffing' for specific activities (e.g. outreach, regional entitites, consultants, etc.)	Brunswick	NMRWP Steering Committee
	2. Secure Funding: ID funding opportunities and secure funds.		NMRWP Steering Committee

Possible Funding Sources

DEP 319 Grant

CBEP

DMR

DEP Small Community Grants Program

Foundations

In-kind services