TABLE 1. CANADA: GULF OF MAINE

PROGRAMS AND POLICIES
HABITAT PROTECTION AND RESTORATION
COASTAL WATERSHEDS: WETLANDS AND TIDAL OBSTRUCTIONS

	MANDATE/TARGET	SUCCESSES	OBSTACLES
INTERNATIONAL			
Ramsar Convention on Wetlands Adopted by UNESCO, 1971 Ratified by Canada, 1981	To stem progressive encroachment on and loss of wetlands now and in the future.	Designated dams.	Ramsar designation is not official protection, but gives weight to protectior initiatives.
NATIONAL			
The Oceans Act (1996)	Includes policies for marine protected areas.	No successes to date, but the Musquash estuary in New Brunswick is a proposed site.	Conflicts with provincial governments, lack of clear procedure for selection and designation of marine protected areas.
Alteration or destruction of fish habitat cannot occur without authorization by DFO; pollution protection.	Fisheries Act (1977)		Definition of fish habitat has changed. General lack of enforcement.
Created to rebuild dikes in the Maritimes after WWII. Essentially took the responsibility of dike maintenance from the private sector and placed it in the public sector.	Maritime Marshlands Reclamation Act (1949)	Rebuilt many of the dikes in the Bay of Fundy. reinforced them with concrete to reduce frequency of maintenance.	
Supports and facilitates sustainable ecosystem initiatives. Works with and within communities.	Atlantic Coastal Action Program (ACAP)	Has 13 sites in Atlantic Canada that are currently restored. The Annapolis River is an ACAP site.	Successes of this program vary with each community. Overall, ACAP is viewed as a positive initiative with funding, but not control, provided by the federal government.

	MANDATE/TARGET	SUCCESSES	OBSTACLES
NATIONAL (Continued)			
Several regulations determine that wildlife habitat should be protected from destruction.	Wildlife Area Regulations	Used in protected area and park designation.	Regulations compete with economic benefits of development. Difficulty in enforcement.
Migratory Bird Sanctuary Regulations	Protect sanctuary areas		Protect critical habitat. In the Bay of Fundy, several feeding areas for the piping plover have been designated.
National Parks Act	Provides legislation for the creation and maintenance of national parks.	Protects habitat, provides public education.	High recreation level can be damaging t wildlife habitat.
NS Environment Act (1995)	Approval is necessary before 2 or more hectares of wetland habitat can be altered. Provides guidelines and assessment for Environmental Impact Assessments.	The existence of the directive indicates a significant change in the perception of wetlands as valuable ecosystems.	Activities that are considered "normal" agricultural practices are exempt from the directive. The act is difficult to enforce.
NS Marshland Reclamation Act	In terms of salt marsh restoration, the maintenance of lands and structures that are incorporated by marsh bodies under this particular act are exempt from the directive initiated by the Environment Act. (See above.)		
NS Special Places Protection Act	Regulation and policy for establishment of ecological reserves.	Several ecological reserves have been established.	Public consultation process can be difficult.
NS Health Act	Laws for installation of private sewage disposal systems.	Prohibits installation of private sewage outlets in unsuitable areas.	Distribution of permits can be determine by politics.
NS Marsh Act	Legislation for construction and alteration of dikes.	Maintains agricultural lands.	Environment Act now requires a permit to alter or obstruct tidal flow to marsh lands.

	MANDATE/TARGET	SUCCESSES	OBSTACLES
NATIONAL (Continued)			
NS Department of Agriculture and Marketing	One of the mandates is to maintain the dike system and protect agricultural land from saltwater flooding.		
NS Dept. of Natural Resources: Private Lands Stewardship Strategy	Intended to facilitate stewardship initiatives with individual and corporate landowners.		Has been set aside due to other initiatives.
NB Dept. of Environment (Environmental Trust Fund)	Provides funding for initiatives to restore, protect and promote the environment.	In 1998, projects by Eastern	Success is dependent on the projects which are funded.
NB Environment Act	Prohibits infilling and alteration of wetlands over 2 hectares	Promotes protection of wetlands.	Reasonably well enforced, but some alterations on private land continue to occur.
NB Dept. of Municipalities, Housing and Culture (Coastal Land-Use Policy)	Intent is to create zoning and land use planning that will include wetland protection. this legislation is still in the planning stages.		This is a much needed policy, but there are difficulties in reaching agreements o how, when and what this policy shall affect.
NB Dept. of Agriculture and Rural Development	General mandate is to increase the level of economic activity in the agri-food industry and to promote entrepreneurship and economic growth in rural areas.		Is generally against active removal of tidal obstructions.

TABLE 2. UNITED STATES: GULF OF MAINE

PROGRAMS AND POLICIES
HABITAT PROTECTION AND RESTORATION
COASTAL WATERSHEDS: WETLANDS AND TIDAL OBSTRUCTIONS

	MANDATE/TARGET	SUCCESSES	OBSTACLES
INTERNATIONAL			
RAMSAR Convention on Wetlands adopted by UNESCO, 1971	To stem progressive encroachment on and loss of wetlands.		
FEDERAL			
Eastern Habitat Joint Venture	Protection and restoration of wetland and associated upland habitats.	International coordination, see NAWCA	
Gulf of Maine (GOM) Council on Marine Environment	To maintain and enhance environmental quality in the GOM.	Dialogue between state and provincial officials working in the GOM.	
Coastal America Federal Agencies	Coastal wetlands.	Leading to expanded cooperation.	No funding available.
North American Wetlands Conservation Act (NAWCA)	Coordinate planning, funding and implementation of projects to protect important habitats.	Maine Wetlands Protection Coalition, Great Bay Resource Protection Partnership.	Limited funding available, very competitive.
Clean Water Act ACOE, USEPA, FWS, NMF	Protect from loss of wetlands and surface waters.	Requires extensive review to minimize impacts from development.	Political pressure.
National Estuaries Program (USEPA)	Increase awareness of estuaries and public participation in issues.	Casco Bay Program, Mass Bays Program, N.H. Estuaries Program	Not focused on protection or restoration.
National Marine Fisheries Restoration Center, NOAA	Restoration of fish habitats.	Argilla Road, Ipswich, Mass. project.	
National Estuarine Research Reserve Program, NOAA	Support research, increase public awareness.	Three Gulf of Maine program sites.	

	MANDATE/TARGET	SUCCESSES	OBSTACLES
FEDERAL (Continued)			
Partners for Wildlife FWS	Funding for salt-marsh restoration and enhancement.	Several New Hampshire projects completed.	Funding cannot full need of increased restoration awareness.
National Fish and Wildlife Foundation FWS	Matching funds for restoration/protection projects.	Some funding has been used in the Gulf of Maine.	Requires cash match.
Gulf of Maine Ecosystem Project, Coastal Program FWS	Protection and restoration of coastal wetlands and hydrology.	Habitat analysis, project coordination.	
Coastal Wetlands Conservation Grant Program FWS	Funding for coastal wetlands and tidelands acquisition and restoration.		
Wetland Reserve Program, NRCS	Restore and protect wetlands on private land.		Limited use in tidal areas.
Wildlife Habitat Improvement Program, NRCS	Technical assistance and cost share payments to help establish and improve fish and wildlife habitat.	In New Hampshire, focused on ecosystem restoration including salt marshes.	Limited funding available.
STATES			
Maine Regulatory Wetlands Program	Tidal marshes given highest level of protection.		Does not address restoration.
Maine Stormwater Management Program	Development projects in organized areas.		Does not address existing problems.
Maine Shoreland Zoning	Maximum protection to tidal waters and wetlands determined to be of high value by Dept. Inland Fisheries & Wildlife.	Twenty-year-old program has gained general acceptance by citizenry and government.	Local enforcement can lead to lack of consistency.
N.H. Tidal Buffer Zone law	Protect marsh function by limiting activity within 30 meters.		Lax enforcement.
N.H. Regulatory Wetlands Protection Program	Regulate wetland impacts.	Little direct loss of tidal resources.	Permitting can discourage restoration projects.

	MANDATE/TARGET	SUCCESSES	OBSTACLES
STATES (Continued)			
N.H. Shoreland Protection Act	Allows limited uses within 75 meters of tidal waters.	Increased public awareness of shoreland importance.	Lax enforcement, allows some incompatible uses, does not apply to small streams and freshwater wetlands.
Mass. Wetlands Restoration and Banking Program	Restore destroyed and degraded wetlands.	Increased awareness and cooperation, rehabilitation of Newbury rail line.	Impacts on private property, high costs of restoration.
Mass. Wetlands Conservancy Program	Map potential restoration sites.		Mapping project only.
Mass. Coastal Wetlands Restriction Program	Prevent any additional tidal restrictions.		Prevents improvement in tidal flow as well as restrictions.
State Coastal Zone Management Programs	Provide coordination and funding for local projects.	Natural resources in defined coastal zone.	No regulatory authority.
LOCAL			
N.H. Municipal Conservation Commissions	Increase local participation in municipal and state natural resource issues.	Local natural resource protection.	No regulatory authority.
Mass. Municipal Conservation Commissions	Local natural resource protection.		No consistency in enforcement.

TABLE 3. NEW HAMPSHIRE SURVEY OF TIDAL RESTRICTIONS

EXCERPTS FROM "EVALUATION OF RESTORABLE SALT MARSHES IN NEW HAMPSHIRE" (USDA 1994).
DATA LIKE THESE WERE COLLECTED FOR EVERY COASTAL MARSH IN NEW HAMPSHIRE.

Table A - Numbers of Restrictions and Hectares of Salt Marsh Affected by Municipality and Jurisdiction

MUNICIPALITY	TOTAL		STATE		TOWN		RAILROAD		ALL OTHER	
	#	HECTARES	#	HECTARES	#	HECTARES	#	HECTARES	#	HECTARES
Example:										
Dover	1	7.68	-	-	1	7.68	-	-	-	-
Seabrook	5	25.48	1	0.92	2	2.92	1	16.56	1	5.08

Table B * - Adequacy of Tidal Inlets to New Hampshire Salt Marshes*

	EVALUATION UNIT (EU)	RESTRICTION NUMBER	TOWN	EU U/S OF RESTRICTION	INLET ADEQUACY	ORDER TO RESTORE	RESTORABLE HECTARES	CORRECTIVE ACTION	RESTORATION COST	UNIT COST
Example:										
Bass Beach	BB010	28	Rye	BB010	Inadequate	1	1.96	RCP	$70,000	$14,286
	BB020	28	Rye	BB010	Inadequate	1	2.24	RCP	$70,000	$12,500
		29	Rye	BB020	Adequate	2	0.0	None		

* * Explanation of Terms in Table B:

(a) EU U/S of Restriction - the evaluation unit located immediately upstream of the restriction

(b) RCP - reinforced concrete pipe

TABLE 4. MATRIX OF BENEFITS AND COSTS (-) TO RESTORATION EFFORTS ACCRUED FROM PRESERVATION EFFORTS

RESTORATION EFFORTS

PRESERVATION ACTIVITY	TIDALLY RESTRICTED MARSHES	DIKELANDS	SOIL DISPOSAL SITES	INVASIVE PLANT PROBLEMS	OPEN WATER MARSH MANAGEMENT	
					MOSQUITOES	DUCKS
Restricted development	No private structures facilitates tidal rest.	No structures allows tidal rest.	No private structures allows restoration	Minimizes soil disturbance; (-) need reduced	(-) Need for project reduced	Enhances duck use reduces hunt restrictions
Mitigation for unavoidable impacts	Provides funds for tidal restoration		Spoil useful for creation projects; could be obtained from here	(-) Opportunity for invasive plants to colonize		Funds available for projects
Marsh edge protection	Facilitates tidal restoration			Reduces soil disturbance; reduces water quality		
Watershed protection	Improves water quality and habitat values			Improves water quality; facilitates management		Increases habitat diversity and marsh use; reduces soil deposition

TABLE 5. MATRIX OF BENEFITS AND COSTS (-) TO PRESERVATION EFFORTS ACCRUED FROM RESTORATION EFFORTS

RESTORATION ACTIVITY

PRESERVATION EFFORT	TIDALLY RESTRICTED MARSHES	DIKELANDS	SOIL DISPOSAL SITES	INVASIVE PLANT PROBLEMS	OPEN WATER MARSH MANAGEMENT	
					MOSQUITOES	DUCKS
Restricted development	Increase in intertidal area increases protection	Same effect	Same effect	(-) Are more desirable for development	(-) Are more desirable for development	Hunting makes area less desirable for develoment
Mitigation for unavoidable impacts	Provides more upland areas for creation projects	Same effect	Spoil removed from marsh available for creation projects			
Marsh edge protection	Provides insight to sea level rise impacts		Removal must extend beyond current high tide line			
Watershed protection	Increases connectivity to improve ecosystem functions and values, especially fish runs			Protects watershed species diversity by reducing propagules of invasive species		