

5.5 Objectives and Actions for Sustainable Living Resources in the Barnegat Bay Watershed

<i>Goal - To protect, restore and enhance habitats in the Barnegat Bay and its watershed to ensure healthy and sustainable natural communities of plants and animals now and in the future</i>					
LR Objectives	LR Action ID	CCMP Action	Lead Partner (s)	Time-frame	Costs
1. Develop and implement Habitat Protection and Restoration Plans for ecologically sensitive habitats					
	1-1	<p>Compile existing data and maps; determine and collect missing data for ecologically sensitive habitats and associated buffers.</p> <p><b>METRICS:</b> The number of complete maps of ecologically sensitive areas</p> <p><b>MILESTONES:</b>            1-1a – Identify relevant ecologically sensitive areas            1-1b – Compile existing maps and data            1-1c – Collect missing data            1-1d – Update and publish mapping</p>	NJDEP*, Pinelands Commission	S	\$
	1-2	<p>Develop and implement conservation/restoration plans for ecologically sensitive terrestrial, coastal and aquatic habitats.</p> <p><b>METRICS:</b> The acreage of ecologically sensitive areas conserved/restored</p> <p><b>MILESTONES:</b>            1-2a – Develop conservation/restoration plans</p>	NJDEP*, USFWS	L	\$\$\$

		<p>1-2b – Identify funding sources and procure funds where needed</p> <p>1-2c – Implement plans</p> <p>1-2d – Assess implementation and conduct adaptive management</p>			
	<b>1-3</b>	<p>Create a web-accessible database of habitat protection and restoration activities.</p> <p><b>METRICS:</b> A complete, web-accessible database</p> <p><b>MILESTONES:</b></p> <p>1-3a – Compile existing information from partners and agencies</p> <p>1-3b – Develop web-based database</p> <p>1-3c – Publish database</p>	BBP, NJDEP, USFWS, Ocean County	S	\$
	<b>1-4</b>	<p>Encourage the protection and management of habitats on a sub-watershed basis through coordination and collaboration across municipal boundaries.</p> <p><b>METRICS:</b> The acreage of habitat managed across municipal boundaries</p> <p><b>MILESTONES:</b></p> <p>1-4a – Identify sensitive habitat areas crossing municipal borders (see 1-2)</p> <p>1-4b – Meet with municipal officials/planners/engineers</p> <p>1-4c – Develop cross-border management plans</p>	BBP, Counties, Municipalities	M	\$
	<b>1-5</b>	<p>Promote management of ecologically sensitive and other target areas.</p> <p><b>METRICS:</b> The number of acres under active conservation management</p>	NJDEP*, USFWS, NJMTA, PPA, Land Conservancies,	L	\$\$

		<p><b>MILESTONES:</b>          1-5a – Identify currently owned sensitive areas not actively managed</p> <p>1-5b – Develop and implement parcel specific management plans</p>			
<b>2. Restore and maintain sustainable populations of fish and wildlife</b>					
	<b>2-1</b>	<p>Develop a bay-wide multi-use management plan that supports sustainable aquaculture, commercial and recreational harvest, recreation, and restoration.</p> <p><b>METRICS:</b> A bay-wide multi-use management plan for Barnegat Bay resources</p> <p><b>MILESTONES:</b>          2-1a – Create a plan development process          2-1b – Hold stakeholder meetings          2-1c – Integrate existing data and stakeholder comments          2-1d – Publish final plan</p>	NJDEP*, BBP, RCE, NJSGC,	M	\$\$
	<b>2-2</b>	<p>Restore fish passage and other riparian habitats to improve habitat quality and connectivity.</p> <p><b>METRICS:</b> The number of river miles reconnected/number of fish passage barriers removed/improved. The acreage of riparian habitats improved/restored.</p> <p><b>MILESTONES:</b>          2-2a – Identify barriers to fish passage and riparian habitats in need of improvement          2-2b – Develop plan(s) for passage/habitat improvement</p>	BBP, NOAA, NJDEP, USFWS, NJDOT	L	\$\$\$

		2-2c – Identify funding source(s) for activities 2-2d – Implement improvement plans			
	<b>2-3</b>	Participate in the implementation and periodic update of the New Jersey State Wildlife Action Plan.  <b>METRICS:</b> The number of SWAP projects/actions completed in the watershed  <b>MILESTONES:</b> 2-3a – Identify applicable projects within the SWAP 2-3b – Identify resources required for implementation 2-3c – Implement plans	NJDEP, BBP	L	\$\$
	<b>2-4</b>	Create and restore wildlife corridors for habitat quality and connectivity.  <b>METRICS:</b> Acreage of wildlife corridors created/restored  <b>MILESTONES:</b> 2-4a – Identify potentially suitable areas for acquisition /restoration 2-4b – Develop restoration/acquisition plans 2-4c – Implement plans	TPL, USFWS, Counties	L	\$\$\$\$
	<b>2-5</b>	Monitor, manage, and control invasive and nuisance species through ecologically appropriate methods  <b>METRICS:</b> Reduction in amount of invasive and nuisance species  <b>MILESTONES:</b> 2-5a – Identify invasive/nuisance species 2-5b – Prioritize management activities 2-5c – Implement management activities	NJDEP, USFWS, BBP	L	\$\$\$

		2-5d – Assess outcomes and conduct adaptive management			
<b>3. Monitor and assess status and trends of living resources throughout the watershed.</b>					
	<b>3-1</b>	<p>Assess distribution and abundance of SAV through coordinated, regular surveys to evaluate their structure and function.</p> <p><b>METRICS:</b> Completion of distribution and demographic surveys</p> <p><b>MILESTONES:</b>            3-1a – Develop regularly scheduled survey protocol and identify stable funding source            3-1b – Conduct aerial survey            3-1c – Conduct demographic surveys</p>	NJDEP*, BBP, Stockton University	L	\$\$
	<b>3-2</b>	<p>Continue the ongoing Mid Atlantic Coastal Wetlands Assessment program (MACWA) to evaluate the condition and function of wetlands.</p> <p><b>METRICS:</b> Completion of annual MACWA activities</p> <p><b>MILESTONES:</b>            3-2a – Coordinate annual field activities            3-2b – Conduct fieldwork and data analysis            3-2c – Prepare annual and multi-year reports</p>	BBP, NJDEP*, EPA	L	\$\$\$
	<b>3-3</b>	<p>Update and/or complete mapping of riparian and tidal wetlands buffers to evaluate and monitor status and health</p> <p><b>METRICS:</b> A current map of riparian and tidal wetland buffers</p> <p><b>MILESTONES:</b>            3-3a – Evaluate current mapping for deficiencies</p>	NJDEP*	S	\$

		<p>3-3b – Utilize existing data or collect new data to address deficiencies</p> <p>3-3c – Publish updated mapping</p>			
	<b>3-4</b>	<p>Continue to monitor and assess the status of commercially, recreationally, and ecologically important aquatic species.</p> <p><b>METRICS:</b> Population status information available for fish and shellfish species.</p> <p><b>MILESTONES:</b>          3-4a – Evaluate data collection activities for important species, and modify if necessary</p> <p>3-4b – Collect, analyze, and publish data</p>	NJDEP*, NOAA, BBP, Stockton University	L	\$\$\$
	<b>3-5</b>	<p>Monitor and assess target animal and plant species, such as pollinator and migratory species, threatened and endangered species, and plant communities of special importance (see Habitat Plan)</p> <p><b>METRICS:</b> Population status information available for target species</p> <p><b>MILESTONES:</b>          3-5a – Evaluate data collection activities for important species, and modify if necessary</p> <p>3-5b – Collect, analyze, and publish data</p>	NJDEP, Pinelands Commission, USFWS,	L	\$\$\$
	<b>3-7</b>	<p>Monitor and assess the impact of the closure of the Oyster Creek Nuclear Generating Station on living resources in the Barnegat Bay.</p> <p><b>METRICS:</b> A final report on the ecosystem effects of the OCNCS closure</p> <p><b>MILESTONES:</b>          3-7a – Develop monitoring plan</p>	NJDEP*	L	\$\$

		3-7b – Collect and analyze data			
		3-8c – Write final report and recommendations			
<b>4. Conduct studies to improve scientific understanding of living resources and ecologically sensitive habitats.</b>					
	<b>4-1</b>	<p>Conduct studies that identify and document appropriate mechanisms and strategies to support restoration of ecologically sensitive habitats identified in Obj. 1.</p> <p><b>METRICS:</b> The number of completed studies, including recommendations</p> <p><b>MILESTONES:</b>            4-1a – Determine area(s) of need and develop study plan(s)            4-1b – Collect and analyze data            4-2b – Prepare recommendations and distribute to practitioners</p>	NJDEP*, NJSGC, BBP, Stockton University	L	\$\$\$
	<b>4-2</b>	<p>Identify and assess habitat suitability, connectivity, and barriers to fish passage (e.g. North Atlantic Aquatic Connectivity Collaborative approach.)</p> <p><b>METRICS:</b> The number of connectivity/passage assessments conducted at potential stream barriers</p> <p><b>MILESTONES:</b>            4-2a – Identify potential barriers to fish passage            4-2b – Prioritize assessment areas based on habitat suitability            4-2c – Conduct assessments</p>	BBP, NJDEP	M	\$\$
	<b>4-3</b>	<p>Conduct studies that identify and document the life history and/or ecology of pertinent living resources.</p> <p><b>METRICS:</b> The number of studies conducted</p>	NJDEP, NOAA, USFWS, Pinelands Commission, BBP, JCNERR	L	\$\$

		<b>MILESTONES:</b> 4-3a – Identify potential study subjects  4-3b – Collect and analyze data  4-3c – Disseminate findings			
<b>5. Increase education and public outreach related to habitats and living resources</b>					
	<b>5-1</b>	Promote an understanding of science-based decision-making in the management of habitats and living resources  <b>METRICS:</b>  <b>MILESTONES:</b>	All partners		
	<b>5-2</b>	Promote and support educational efforts related to the restoration of habitats and living resources (e.g. living shorelines, shellfish)  <b>METRICS:</b>  <b>MILESTONES:</b>	ReClam the Bay, NOAA, BBP, NJDEP		
	<b>5-3</b>	Promote educational efforts about the functional role of critical bay habitats, such as seagrass beds and wetlands, and the early life stages of estuarine-dependent species.  <b>METRICS:</b>  <b>MILESTONES:</b>	BBP, JCNERR, NJDEP		
	<b>5-4</b>	Produce educational materials about the impacts of climate change on the living resources of the bay.  <b>METRICS:</b>  <b>MILESTONES:</b>	BBP, JCNERR		



	<b>5-5</b>	<p>Promote an improved understanding of the economic and ecological importance of fisheries.</p> <p><b>METRICS:</b></p> <p><b>MILESTONES:</b></p>	NOAA, NJDEP		
	<b>5-6</b>	<p>Promote education and enforcement of regulations and best practices for responsible use of ecologically sensitive and target areas (e.g. personal watercraft and boating, off-road vehicles)</p> <p><b>METRICS:</b></p> <p><b>MILESTONES:</b></p>	PPA, NJDEP*, Land Conservancies, BBP-CEC, JCNERR, Marine Trades Association, NJ Sea Grant Consortium, Ocean County Tourism, Natural Lands Trust, BBP-CEC		

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