



JON S. CORZINE
Governor

State of New Jersey
Highlands Water Protection and Planning Council
100 North Road (Route 513)
Chester, New Jersey 07930-2322
(908) 879-6737
(908) 879-4205 (fax)
www.highlands.state.nj.us



JOHN R. WEINGART
Chairman

EILEEN SWAN
Executive Director

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MEETING OF THE HIGHLANDS COUNCIL**

RMP Program: Restoration of Streams and Riparian Areas
Version: October 31, 2007

<p>Issue Overview</p>	<p>Streams transport floodwater, stormwater and suspended materials, support aquatic ecosystems, protect fish and wildlife habitat, and provide recreation opportunities and aesthetic beauty. Riparian areas moderate fluctuations in water temperature, help maintain ground water recharge and stream base flow, stabilize stream banks, and provide flood storage areas. During high flow or overland runoff events, riparian areas reduce erosion and sediment loads to surface water and remove excess nutrients and contaminants from flood water. Riparian areas also provide habitat for a variety of wildlife and support terrestrial and aquatic food webs through deposition of woody debris.</p> <p>Stream and riparian area quality and function are influenced by intensity and type of land use. Anthropogenic disturbance to these systems disrupt the transport, storage, and quality of water that is critical to ecological functions. Land use change, increased impervious surfaces, and riparian vegetation removal decrease infiltration capacity within riparian areas, increase overland storm or flood water runoff, erode stream banks, alter stream profile, degrade water quality, alter stream flow regime, and damage aquatic fish and benthic communities.</p> <p>The Highland Act requires that the Regional Management Plan protect, enhance, and restore the Region’s waters. To meet this goal, several RMP policies and objectives address the requirement for preventing disturbance to high quality systems, and for restoring the Region’s streams and riparian areas.</p>
<p>RMP Policies and Objectives Addressed</p>	<p>Policy 1.2.1.4. Highlands Open Waters shall include a protection buffer of 300 feet from the edge of the Highlands Open Water feature. All development shall comply with buffer standards which provide for the protection of Highlands Open Waters reviewed on a site-specific basis during site plan or subdivision.</p> <p>Objective 1.2.1.4.6. <i>Implementation of a Stream Corridor Protection/Restoration plan and Low Impact Development Best Management Practices for any development activity proposed within a Highlands Open Water buffer.</i></p> <p>Policy 1.2.1.5. Protect the integrity of the Riparian Areas through the application of project review standards during site plan review.</p> <p>Objective 1.2.1.5.2. <i>Limit alterations to existing natural vegetation or increases in impervious area within High and Moderate Integrity Riparian Areas to the minimum extent feasible in areas</i></p>

	<p><i>beyond the Highlands Open Water buffer requirements; protect the water quality of adjacent Highlands Open Water; and maintain or restore habitat value of the Riparian Area.</i></p> <p>Policy 1.2.1.6. All development in a Protection Zone and Conservation Zone shall comply with standards to protect and enhance Highlands Open Waters and Riparian Areas.</p> <p>Objective 1.2.1.6.4. <i>Require identification and implementation of opportunities where the restoration and enhancement of previously impaired Highlands Open Waters or Riparian Areas are feasible and appropriate as mitigation to any allowable adjustment or revision to Highlands Open Water or Riparian Area protection buffer requirements.</i></p> <p>Policy 1.2.1.7. All development in a Planned Community Zone shall comply with standards which will protect and enhance Highlands Open Waters and Riparian Areas.</p> <p>Objective 1.2.7.3. <i>Require identification and implementation of opportunities where the restoration and enhancement of previously impaired Highlands Open Waters or Riparian Areas are feasible and appropriate as mitigation to any allowable adjustment or revision to Highlands Open Water or Riparian Area protection buffer requirements.</i></p> <p>Objective 1.2.1.8.2. <i>Identify opportunities for and implement Highlands Open Waters and Riparian Area restoration practices on public and private lands that give priority to ecological and watershed protection measures.</i></p>
Program Summary	<p>The Highlands Regional Master Plan focuses on several areas of action to address the need to protect, restore and enhance Highlands Open Waters and Riparian Areas. The Stream Restoration Program will promote consistent standards for the protection, restoration and acquisition of important waters and riparian areas of the Highlands Region. The program will include guidance for the restoration of degraded streams and riparian areas.</p>
Stream and Riparian Assessment	<p>Program Description</p> <p>The Highlands Council guidance for assessing stream corridor and riparian area condition will provide a comprehensive methodology for utilization of a variety of structural, biological, hydrologic, and water quality components to value or “score” specific stream reaches and riparian areas.</p> <p>Assessed stream and riparian area value or “score” will dictate both the prioritization for preservation of lands draining to high quality streams and riparian areas and the extent and type of restoration required for impaired streams and riparian areas</p>
Development of Stream Restoration Guidance	<p>Program Description</p> <p>The Highlands Council will develop technical guidance for use by municipalities for the restoration of impaired streams. Highlands Council guidance for stream restoration may include goals and design guidelines for restoration of channel profile, flood control, sediment control, improved drainage, bank stabilization, improvement of aquatic habitat, and restoration of the ecological functions and processes of a stream and its adjacent riparian area and floodplain. Existing guidance manuals, <i>Stream Restoration Design</i>, developed by the Natural Resources Conservation Service, and <i>Stream Corridor Restoration</i>, developed by the Federal Interagency Stream Corridor Restoration Working Group, will be used as two examples for the Council’s work.</p>

<p><i>Development of Riparian Restoration Guidance</i></p>	<p>Program Description The Highlands Council will develop or adapt technical guidance for use by municipalities for the restoration of impaired riparian areas. Highlands Council guidance for stream restoration may include goals and design guidelines for restoration of riparian vegetation, improvement of riparian wildlife habitat, increased riparian buffer width, reduction of impervious surface coverage, and restoration of the ecological functions and processes of a riparian area with its adjacent stream and upland terrestrial habitat. <i>Stream Corridor Restoration</i>, developed by the Federal Interagency Stream Corridor Restoration Working Group will be used as one example for the Council’s work.</p>
<p><i>Implementation of Stream and Riparian Area Restoration Projects</i></p>	<p>Program Description The Highlands Council will encourage restoration of streams and riparian areas by public and private landowners, government agencies, non-profit organizations and other interested parties wherever feasible. Opportunities for restoration include, but are not limited to:</p> <ul style="list-style-type: none"> • Redevelopment projects in areas containing previously degraded streams and riparian areas; • Transportation projects where restoration of previously degraded streams and riparian areas can be cost-effectively incorporated into the capital project; • Implementation of Watershed Restoration Plans approved by the NJ Department of Environmental Protection; • Park development capital projects, where restoration of prior damage can be cost-effectively incorporated into the capital project.