Appendix 7

Description of Watershed Protection
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As was previously mentioned, the Jackson Mills dam is located in downtown Nashua, New Hampshire, approximately 700 feet downstream from the crossing of Main Street (old U.S. Route 3) over the Nashua River. The city is located 12 miles north of Lowell Massachusetts on a gently sloping low plateau characterized by stratified and unstratified material of silt, sand, and gravel. The watershed area formed by the Jackson Mills dam impoundment extends approximately 40 acres. The gross reservoir volume is 450 acre-feet. The projected is operated as a run of river facility with a net storage capacity of zero. A 200-foot boundary zone extending around the impoundment is bordered by mill buildings, shopping malls and homes (see Exhibit 3-A).

The Nashua River basin has a total drainage area of 529 square miles, with 88 square miles being in New Hampshire, and 441 square miles in Massachusetts. From the central valley of the main stem of the Nashua River to the limits of the watershed, the landscape is broad, forested, and rural, with small towns and cities scattered throughout. The bedrock of the Nashua River watershed is mostly granite and is covered with a mantle of soils, sand, gravel, and rock.

All of the land in the immediate vicinity of the Jackson Mills dam is urban in character, highly developed and privately owned. The flows below The Nashua Hydroelectric facility ("the Nashua Facility") have minimal effect on shoreline erosion due to the predominantly granite and gravel substrates in the tailrace areas. There has been minimal colonization of exposed shorelines by emergent plants within the 200-foot boundary area due to the inhospitable urban landscape. The species that do exist consist of generally old-field primary successional species that are indicative of an area that has previously been cut over and disturbed. Ornamentals such as crabapple trees, cherry trees and roses were planted on the south side of the dam when the Nashua Public Library was built.

Layout and landscaping of the powerhouse grounds was designed in a manner to minimize visual impact and mitigate the project's impact on the surrounding shoreline. As a condition of issuance, the FERC Exemption requires compliance with any terms and conditions that the Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. There have been no deficiencies noted by any agency with jurisdiction for the plant.