

TERRESTRIAL AND AQUATIC RESOURCES SURVEYS FOR FERC RELICENSING OF ANSON AND ABENAKI PROJECTS, KENNEBEC RIVER, MAINE

Client: Madison Paper Company

RECENT FIELD INVESTIGATIONS on Madison Paper Industries' Anson and Abenaki Projects on the Kennebec River were conducted by Woodlot as part of FERC re-licensing activities. These studies included wetland assessments, geologic feature surveys, a habitat-based wildlife resources assessment, and rare species surveys.

Wetland mapping, transect, and polygon focus area surveys were performed to identify and measure changes in wetland communities that have occurred since a 1996 2-foot increase in headpond elevation. Woodlot conducted a wetland functional assessment by dividing the study area into four sections based on river characteristics, shoreline topography, and dominant habitats.

The geological study included a review of documented bedrock features, surficial deposits, and hydrologic features, followed by a field survey of the impoundment and downstream sections.

For the rare species surveys, Woodlot first reviewed natural



Rare Canada buffaloberry (Shepherdia canadensis) found in the study area on river shore ledges comprised of relatively high pH rock.

history, habitat requirements, and published occurrence data to identify historic rare plant sites and determine suitable locations for field surveys. A base map was prepared that included known, extant occurrences of each species as well as target sites for field surveys (e.g., transects for mussels and dragonflies, and suitable habitats for rare plants suspected to occur).

Field work was carried out in conjunction with wetland and habitat surveys. Fifteen rare species (including 7 of 12 target species) and one unusual natural community were documented in the 9-mile-long study area. The goals of the Madison wildlife resources assessment were to: 1) update existing riparian mapping; 2) characterize existing riparian habitats in the project area; 3) prepare a wildlife habitat-species matrix; and 4) identify potential impacts of project operation to the existing wildlife community and appropriate mitigation measures.

A wildlife species matrix was developed that identified the species most likely to occur in the study area, their relative abundance, and the habitats they use. General and technical references on the habitat requirements of each species were used to refine the matrix to include only those species whose preferred habitats occur in the study area, and to identify time periods during which each species would be expected to use those habitats.



Site surveys included confirmation of cover types and wildlife habitats.

Existing and updated habitat mapping were incorporated into GIS data layers, and draft habitat maps were produced. The upland habitat coverage was merged with wetland mapping conducted as part of the wetlands study.

Site surveys were conducted to collect habitat characterization data, verify habitat mapping, and verify the occurrence of wildlife species. Habitat characterization data collected at plots included vegetation, topography, and soils data. Field surveys included observations of wildlife species encountered in the study area, to confirm the draft species matrix. Deliverables included reports, field data, maps, and digital GIS layers.