

POTENTIAL APPLICATION OF WILDLIFE HABITAT EVALUATION PROCEDURES  
TO DESIGN RECLAMATION HABITATS:  
CASE STUDY FROM A 3400 ACRE RESERVOIR PROJECT<sup>1</sup>

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Abstract. GAI Consultants, Inc., was contracted by the U.S. Army Corps of Engineers (COE) to design replacement wildlife habitat at Cowanesque Lake, Pennsylvania. These replacement upland and wetland habitats were designed to restore habitat unit losses incurred by raising the lake elevation in the spring of 1990. These habitat unit losses were previously determined by a Pennsylvania Modified Habitat Evaluation Procedure (PAM HEP) analysis of the project.

The mitigation plan included design of specific hedgerow patterns to replace upland wildlife habitat, design of wildlife habitat improvement structures for upland habitats, and design of 59 acres of replacing wetlands. Each hedgerow pattern was composed of a variety of plant species beneficial to wildlife, arranged in an innovative pattern which produced diverse, high quality wildlife habitat. This design has been described by the Pennsylvania Game Commission as the best they had seen. GAI designed and prepared specifications for artificial den structures for the raccoon and red fox. These structures incorporated both natural and man-made materials and provided both underground and arboreal shelter. The wetlands were designed to provide high quality wildlife habitat by utilizing specific planting schemes and species composition. The wetland design included three types of wetland plantings based on zones of inundation. Barrier islands were designed to prevent ice scouring of the constructed wetlands.

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