

MD 43 Mitigation at Hollyneck Vernal Pool Restoration

Baltimore County, Maryland



Existing reference vernal pool monitoring

Biohabitats worked closely with the Maryland State Highway Administration (SHA) to evaluate potential sites for wetland mitigation to compensate for impacts associated with a highway improvement project.

After reviewing SHA's existing site selection studies, Biohabitats conducted a GIS-based study which incorporated additional sites identified by SHA through property owner offers and earlier project contacts. Biohabitats then prioritized procedures to facilitate site ranking. Once sites were ranked, those with the most promising mitigation potential were further examined to evaluate feasibility. Biohabitats

performed field preliminary assessment to examine each site's soils, depth to groundwater, and vegetative conditions.

Biohabitats prepared summary site assessment reports, which provided information to regulators, also helped gather opinions and preferences from U.S. Army Corps of Engineers (USACE) and Maryland Department of the Environment (MDE) officials during site visits. As a result of these collaborative efforts, a preferred wetland mitigation site was selected. Biohabitats developed a wetland restoration design concept and worked with SHA and the USACE to develop mitigation credits that

Approximately 15-acres of wetland restored through the creation of vernal pools and the preservation of approximately 115-acres of forested wetlands.

would result from the proposed mitigation project.

Biohabitats then mapped wetland and vernal pool habitats present on part of the site and used this information to support the development of a cost-effective surface water wetland restoration project. This involved conducting a ground and surface water investigation, developing a specific water budget (vernal pool hydrology), performing soils analysis, and developing a mitigation plan that creates a sufficient range of surface ponding to ensure vernal pool habitats will be present under the full range of climatic conditions anticipated at the site.

Biohabitats then mapped wetland and vernal pool habitats present on a part of the preferred project site and used this information to support the development of a cost-effective surface water wetland restora-

tion project. This included conducting a ground and surface water investigation, developing a site-specific water budget (vernal pool hydrology), performing soils analysis, and developing grading plans based on creation of vernal pool wetlands. Biohabitats also prepared a Phase I and Phase II mitigation report consistent with the IMTF guidelines and production of mitigation design plans consistent with the SHA design process, including plans, specifications, and construction cost estimates for this project.

The mitigation project site was constructed in 2005 at which point Biohabitats had the role of monitoring the site for herpetofauna.

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