

Turtle Creek Mitigation Site

Threatened & Endangered Species Surveys

Evergreen Environmental, LLC

Washington Township, New Jersey

The Turtle Creek Mitigation site is one of several sites identified to mitigate and offset impacts to freshwater wetlands, coastal wetlands, and threatened and endangered species habitat resulting from the widening of the Garden State Parkway Milepost 30-80. The 259-acre Turtle Creek Mitigation Site was identified to offset impacts to threatened and endangered species including northern pine snake (*Pituophis melanoleucus*), Pine Barrens treefrog (*Hyla andersonii*), barred owl (*Strix varia*), timber rattlesnake (*Crotalus horridus*), and red-headed woodpecker (*Melanerpes erythrocephalus*) among others. Princeton Hydro, LLC was contracted to conduct a two-phase survey to first identify, map, and assess the habitat on the site and second to conduct directed surveys in the field to verify their presence.

The first phase of the project involving the identification, mapping, and assessment of site habitats used aerial photographs to first identify probable habitats and mapped them using ESRI ArcMap®. Once habitats were mapped, they were ground-verified as well as assessed for the potential for each habitat to support the target listed species.

The second phase of the project involved conducting directed surveys to determine the presence of target species. The surveys were conducted from spring 2007 through autumn 2007. Surveys were scheduled and conducted on the site during the time of the year that the species would be most easily observed such as during breeding, nesting, or flowering times. Additionally, survey methods were specific to each species such as conspecific vocalization playback for amphibian and bird species, time constrained searches in habitat identified as suitable for that species during their most active time and random incidental encounter using transect searches through their suitable habitat. These methods are accepted survey techniques and increase the likelihood of detecting the target species.

