Natural Resource Damage Assessment and Conceptual Wetland Mitigation Plan

ProLogis Corporation

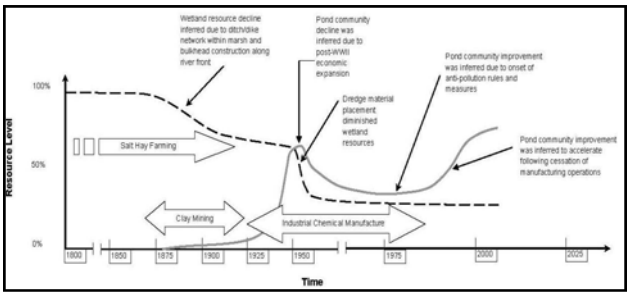
Fords, New Jersey

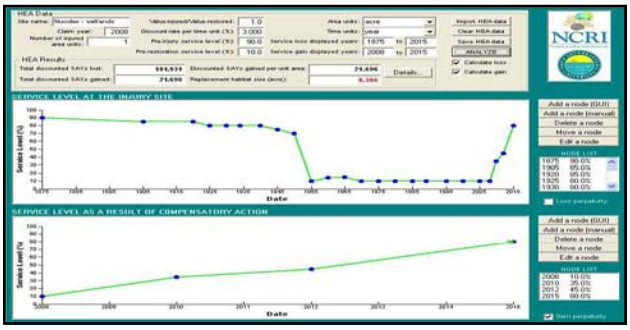
Princeton Hydro was retained by ProLogis Corporation to provide technical assistance regarding settlement of a Natural Resource Damage (NRD) claim raised by State resource trustees and to develop a plan to restore tidal flow to approximately 45 acres of partially-filled wetland. Conceptual habitat enhancement and restoration plans were designed to re-establish a mosaic of tidal and palustrine wetlands as well as upland habitats. The habitat mitigation goal is to re-integrate the site into the broader natural landscape consistent with a regional framework developed for the Hudson—Raritan Estuary. Princeton Hydro is working closely with Edison Wetlands Association in the development of this regional habitat restoration plan.

From the 1870s until WWI, brick clay was mined from the 185-acre site to sustain New York City's construction expansion. From WWI until the mid-1980s, the site was used to manufacture industrial chemicals including pesticides. During the mid-1950s, dredged material from the deepening of the Raritan River shipping channel was placed in wetland areas proximate to the Raritan , including the site.

As a basis to calculate ecological damages associated with industrial chemical manufacturing at the site, Princeton Hydro characterized potentially injured habitats according to current conditions. Next, we carefully examined historical information sources and created a timeline series of land usage for the site. Finally, existing habitat conditions were compared to historic estimates of resource level functioning using a Habitat Equivalency Analysis (HEA) model (Visual_HEA Kohler and Dodge 2006) in order to calculate unit-based compensatory restoration amounts for injury to wetland and aquatic habitats.

The client is using Princeton Hydro's NRD assessment findings to negotiate an outcome with the Trustees that will facilitate site re-development. The settlement is expected to involve a substantial habitat enhancement component that would be in addition to other wetland enhancement objectives.





Kohler, K.E. and R.E. Dodge. 2006. Visual_HEA: Habitat Equivalency Analysis software to calculate compensatory compensatory restoration following natural resource injury. Proceedings of the 10th International Coral Reef Symposium; 1611-1616.