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New Jersey Section American Water Resources Association Excellence in Water Resources Protection and Planning Award

August 2010

Nomination: Duke Farms

Name of Project: New Vision for Duke Farms

Category of the Submission: Exceptional water resources management and planning initiatives

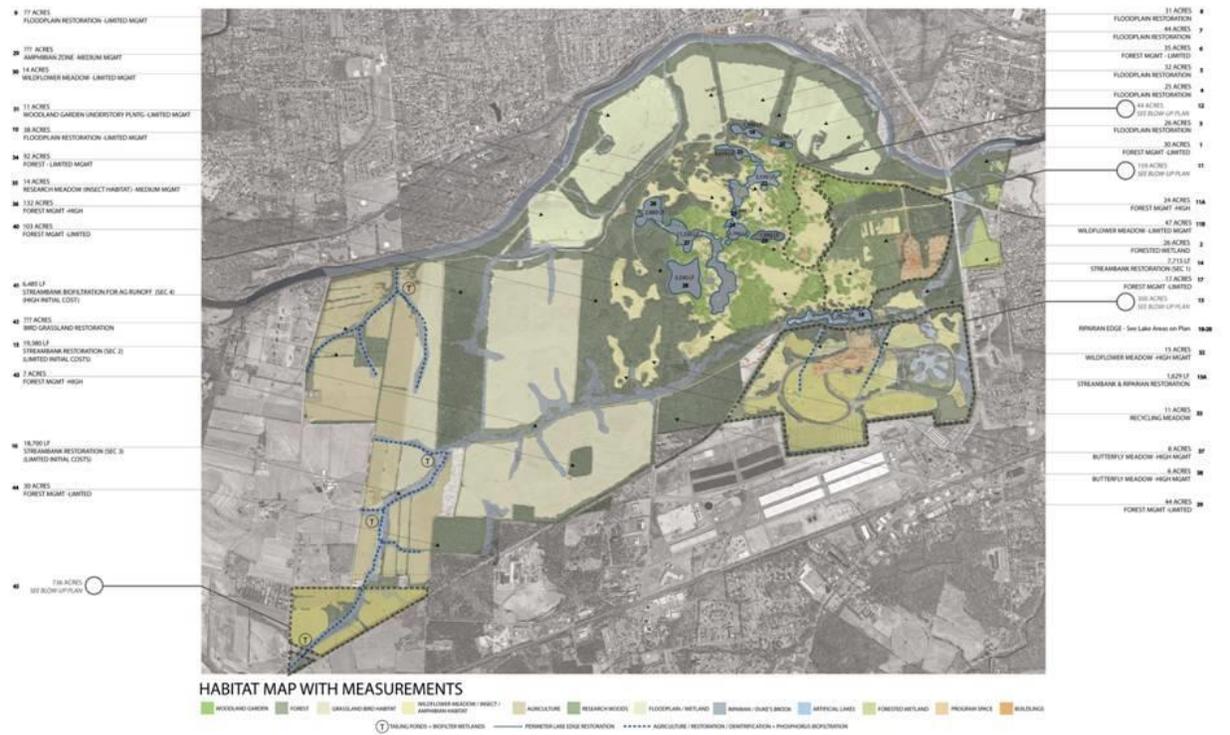
Location of the Project: 2,700 acres Duke Farms in Hillsborough Township, Somerset County

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Project Narrative: Duke Farms is being nominated for an award under the category of “exceptional water resources management and planning initiatives”. Duke Farms is one of the largest, privately owned open spaces in the heavily developed Route 206 corridor in Somerville, New Jersey. Known for years as a garden destination, Duke Farms has recently refocused its mission *to be a model of environmental stewardship in the 21st Century and inspire visitors to become informed stewards of the land*. In its new role it is leading by example. It has undertaken a new comprehensive master plan for the property that looks at all of the resources and developed a vision of the site and refocused all of its buildings, landscape, and programs to create a platform for environmental display and learning.

Beginning in 2006 Duke Farms began a through and extensive analysis of the natural and cultural resources found on the estate. This analysis took stock of the role of the land in regional conservation issues – its use by grassland birds and the unique water resources remnant from the properties modification under “Buck” Duke – tobacco, textile and hydropower industrialist – who in the early 1900’s assembled the property into a showcase. He diverted the Raritan River and created nine manmade lakes and a series of fountains and pumps creating a prime example of a cultural landscape that is now known by the term “lagoon landscape”. This recent detailed analysis of the Duke Farms also considered the importance of managing water along the nearly 4

miles of riparian habitat that edges the northern edge of the property bordering the Raritan River.



Every Part of the Property Considered

The new vision of Duke Farms has informed the design and management of water resources of the site. With this comprehensive approach in mind, as well as the desire to communicate their work to visitors over the long-term, Duke Farms has taken the legacy of the famed “lagoon landscape” created by “Buck” Duke in the first decade of 1900’s and updated the notions of water features and water management in implementing the new vision. Over the last few years, Duke Farms has restored over 9,000 linear feet of lake shore, developed strategies to treat the lakes naturally and installed 25 floating islands to improve water quality at Duke Farms. In addition, Duke Farms has taken an aggressive approach to finding long-term strategies to protect the resources of the site. Duke Farms has forged a public-private partnership with the New Jersey Natural Resource Conservation Service (NRCS) and recently voluntarily enrolled 528 acres in two federal programs to ensure the long-term preservation and restoration of wetlands throughout the site as well as along the riparian and wetlands corridor associated with the nearly 4 miles of frontage along the Raritan River.

Approximately 133 acres along the floodplain of the Raritan River were enrolled in the Emergency Watershed Protection Program. In this program, the NRCS purchased a floodplain easement from Duke Farms. Duke Farms agreed to retire the right to develop or farm the

property and provided NRCS with the ability to restore and enhance the floodplain's function and values. In this area, over 16,000 trees and shrubs are being planted and invasive species have been removed. Long-term the trees and shrubs will help to trap sediment that comes with rising flood waters. The funds for the purchase and restoration of the floodplain became available through the 2009 American Recovery and Reinvestment Act.

In addition, 395 acres were enrolled in the Wetlands Reserve Program, the majority of these wetlands are found in the lowlands adjacent to the Raritan River.

Duke Farms has received approval to construct and utilize an innovative constructed-wetlands system to treat the wastewater generated by visitors to the Farm Barn, as well as by Duke Farms Foundation staff who will work on the second floor of that renovated building. Stormwater will be collected in a cistern re-used to irrigate the landscape and bioswales and rain gardens will filter the parking lot stormwater.

Duke Farms' comprehensive approach to management of its water resources in conjunction with the other natural and cultural resources has provided many opportunities to utilize high standards and creative approaches. Duke Farms has worked successfully in cooperation with local and federal officials, numerous non-profit conservation organizations, as well as a range of experts and consultants to craft a thoughtful new vision for this exceptional historic and natural gem. The project will not stop with the renovation of the property to fit the new vision, but will continue on as an important model for range of visitors interested in experiencing and learning about ways to better plan for and manage water.