

Greater Newark Conservancy's
NEWARK WATERSHED
PROFESSIONAL DEVELOPMENT PROGRAM
FOR EDUCATORS

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Final Report

September 8, 2005

Summary: Through the generosity of The NY/NJ Harbor Estuary Program, Greater Newark Conservancy was able to design and present a professional development workshop for teachers that heightened awareness of the Newark Bay Estuary, watersheds and conservation, and developed a sense of stewardship. A two-day workshop was held in October 2004 and included a field trip experience entitled "All about Our Water", held at our new Prudential Outdoor Learning Center and an eco-cruise on Newark Bay. With a surplus remaining in the grant we repeated the workshop in May 2005. Unfortunately, a nor'easter storm forced the RiverKeeper to cancel the eco-cruise scheduled for the second day of the May workshop.

The workshops reached 16 Newark teachers, grades 5 and above, and through them over 2,000 students. Teacher evaluations attached to this report indicate a high level of satisfaction with the workshop experience.

Following the May workshop, a \$500 balance remained in the grant; with the approval of Beth Card, Conservancy staff purchased additional materials for the expanded lessons and hands-on activities that are included in the "All about Our Water" field trip. With the NY/NJ Harbor Estuary grant, we had developed the curriculum and activities for the first day of the professional development workshop. The purchased materials prepare us to implement the same lessons for students and their teachers participating in the "All about Our Water" field trip long after the close of the grant period.

Goals Reached: The goals as stated in the proposal were to: (1) train up to 15 Newark teachers about the water and wetlands in their watershed, using curricula for WOW!, Project Wet, WILD, Aquatic Wild and Learning Tree, and NJ WATERS, (2) raise awareness of local resources, and (3) increase teacher confidence in leading field trips.

The new grant-funded curriculum, "All about Our Water", is specific to Newark, NJ and the Urban Wildlife Gallery/Water Garden in the Conservancy's new Prudential Outdoor

Learning Center. "All About Our Water" is adapted from the curricula for Project WET, WOW, WILD, Aquatic Wild and Learning Tree and New Jersey Waters and is correlated to New Jersey's Core Curriculum Standards. All lessons are inquiry driven, hands-on, and use the Newark Harbor Estuary System as an integrating context for learning: there are lessons in math, social studies, science and language.

All workshop participants received the "All about Our Water" curriculum in a Conservancy-designed Teachers Guide. Topics and lesson plans include:

- A Description of the Passaic/Hackensack Basin
- Bioaccumulation and the Pollution of Resources
- The Importance of Wetlands
- Fresh Water as a Limited Resource
- Pervious and Impervious Surfaces
- Learning about a Watershed
- The Properties of Water
- Land Use Practices that Affect Wetlands
- The Characteristics of Bog Environments
- The Water Cycle
- Wetlands are Known by Many Names
- Pollution – Everyone's Responsibility

As a supplement to the curriculum, Conservancy Education Staff compiled a list of materials to help the teachers implement the lessons. In addition to the Teachers Guide, participating teachers received a book, *Discover Nature in Water and Wetlands*, Newark Pocket Maps and markers to help implement the lessons. Teachers also learned about connections to local resources and strategies for running their own trips within the City.

Highlights: The first day of the workshop was held at Greater Newark Conservancy's new Prudential Outdoor Learning Center. Following the Teachers Guide, which each participant had received, a Conservancy Educator taught two of the lessons, then the teachers worked together to teach a lesson in both the morning and afternoon sessions. With the small group, Conservancy staff was able to spend more time explaining the lessons and answering individual teachers' questions. The workshop also included a tour of the ten themed teaching gardens in the Prudential Outdoor Learning Center, with particular emphasis on the Urban Wildlife Gallery and its water garden with a pond, bog and storm drain. The session ended with a review of all the lessons, distribution of material packets and an invitation to bring their students on a field trip. The new Eco-Cruise with the NY/NJ Baykeeper on Newark Bay brought them closer to home than planned in the proposal; our March proposal included a boat ride on the Hackensack River; over the summer we learned of a new eco-cruise on Newark Bay that would be more relevant to the experience of Newark teachers and their students.

Problems: In October, the number of participating teachers fell below the anticipated 15. The reasons were beyond our control; other required math/literacy teacher workshops took precedence over ours, and the BayKeeper asked us to leave two unoccupied seats on the boat for a magazine editor and the Baykeeper's Executive Director. By presenting

the workshop again in May we were able to reach a total of 16 teachers. The other problem was stormy weather in May which forced the cancellation of the Eco-Cruise. The BayKeeper was not able to reschedule our group before the close of school in June.

Evaluation: The Conservancy uses a standard rubric and comment evaluation for its Professional Development Workshops. In the October and May workshops, the teachers' evaluation comments (a sample included below) indicate that this workshop raised their awareness about the unique natural and cultural history of the NY/NJ Harbor Estuary and the wetlands areas within it:

The trip was very informative and enriching.
I would like to be involved in future workshops.
Very educational, empowering learning experience.
I received more information and empowerment than I initially expected.
Other teachers need to gain from this workshop. Hold it in schools.
More workshops like this should be available. This establishment should be government funded as a priority.

These comments are especially useful feedback because we will teach this same grant-funded curriculum in our "All about Our Water" field trips to our Prudential Outdoor Learning Center. Sample evaluations are attached to this report.

We are most appreciative of the NY/NJ Harbor Estuary Program's support of our professional development workshop and its curriculum, which we will continue to use for our "All about Our Waters" field trip.