REBUILD BY DESIGN

MEADOWLANDS

NEWS

February 2017

IN THIS ISSUE

NEPA TIMELINE

Key Milestones and Upcoming Events

January 31, 2017
CAG Meeting #7: Alternative 2 - Stormwater Drainage Improvements

NEXT MEETING

March 29, 2017
CAG Meeting #8: Alternative 1 - Structural Flood Reduction

Get involved!

- ✓ If you would like to become a member of the CAG, please contact Alexis Taylor at rbd-meadowlands@dep.nj.gov. NJDEP welcomes your participation and input into this process!
- ✓ Share information from this newsletter with friends and neighbors.
- ✓ Educate your friends and colleagues on the Proposed Project and NEPA process.
- ✓ Continue to build interest in the Proposed Project.
- ✓ Subscribe to receive email updates on the Proposed Project at www.rbd-meadowlands.nj.gov

Please visit www.rbd-meadowlands.nj.gov to obtain current Proposed Project information and data, including confirmation of the above meeting dates.

Report from January's Citizen Advisory Group Meeting

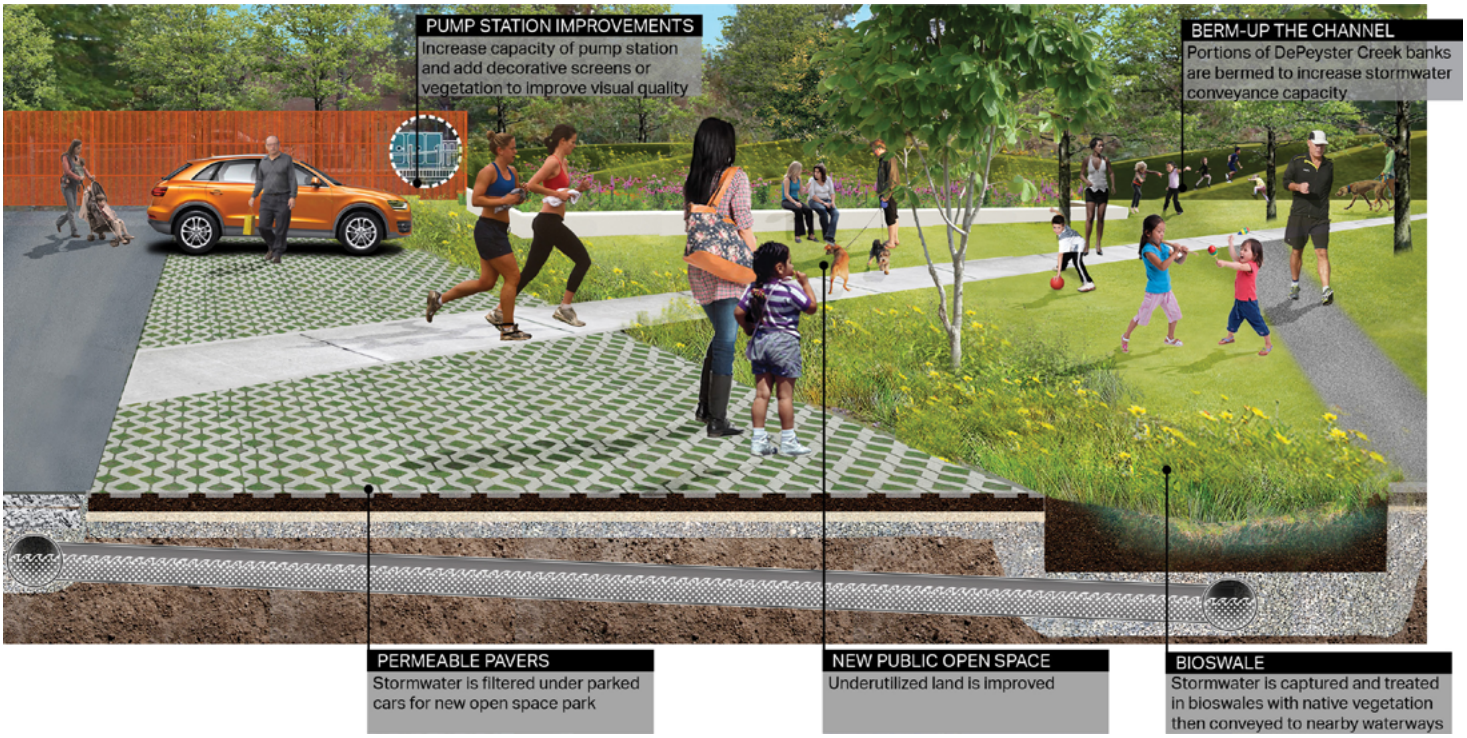
The January Citizen Advisory Group (CAG) meeting for the Rebuild By Design Meadowlands (RBDM) Flood Protection Project was held on Tuesday, January 31, 2017 at One Bergen County Plaza in the City of Hackensack. The focus of the meeting was a detailed overview of the Alternative 2 concept development process and the current seven (7) drainage improvement concepts under consideration.

The development of Alternative 2 concepts began with the identification of twenty (20) hydrological drainage subbasins within the Project Area. In consultation with the CAG and local mayors and utilizing new and existing project-specific data and research, the Project Team identified specific locations within the Project Area that have historically experienced frequent flooding during regular and heavy rainfall events. Using this information, in combination with hydrological modeling, the Project Team developed thirty (30) drainage improvement concepts with the potential to improve stormwater drainage in these areas through a combination of grey and green infrastructure. Generally, these concepts seek to improve both stormwater collection and conveyance through the use of pump stations, tide gates, off-channel storage basins, berms, bioswales, rain gardens, median plantings, permeable pavers, open space improvements, floodplain enhancement, channel excavation, and/or installation of back-flow protection at outfalls.

Using the Concept Screening Criteria Matrix, the Project Team identified the best seven potential stormwater drainage improvement concepts. The Project Team presented the details of each of the seven concepts to the CAG, which can be reviewed in the CAG #7 Meeting Presentation on the project website. The current concepts encompass the following general areas and drainage basins: Main Street in Little Ferry, DePeyster Creek, Moonachie, Losen Slote Creek, West Riser, East Riser, and a combination of East Riser and Main Street in Little Ferry. Moving forward, further modeling will be conducted to better understand how each of the current seven Alternative 2 concepts will function in terms of stormwater quantity, movement, and control. The Project Team is also conducting stormwater system surveys to support more detailed drainage models. The modeling results will assist with assessing hydraulic feasibility and determining the benefits that each concept could provide relative to cost.

Berry's Creek/West Riser Ditch from the Moonachie Shoreline

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Example Rendering of a Potential Drainage Improvement Concept Near DePeyster Creek Pump Station

Water Quality Improvements

The degradation of water quality within and near the Project Area is well documented. As such, evaluation of the potential impacts on water quality that could result from the Proposed Project is critical. To complete this evaluation, Project Team scientists and engineers are modeling the Hackensack River and its tributaries. These efforts will be used to assess potential changes in suspended solids due to erosion and runoff from future storms of various intensities. Results from the modeling will also inform the selection of design alternatives and will be used as part of the environmental analysis.

Thus far, the Project Team has employed a tiered approach towards assessing the potential impacts to water quality from the various concepts. During the initial screening, concepts were rated based on their potential to provide the greatest water quality improvements. For example, bioswales, permeable paving, rain gardens, and bioretention features planted with native vegetation are all being considered as part of Alternative 2. These features would increase the infiltration of stormwater into the soil and slow its discharge into wetlands and waterways. During this process, as much as 80 to 90 percent of suspended solids that might otherwise enter adjacent wetlands and waterways from direct runoff could potentially be filtered out in advance. Using this approach, the Project Team applied higher ratings to the Alternative 2 concepts with the greatest potential for improving water quality and reducing suspended solids during the concept development and screening process.

Next Steps

Concept development is ongoing for each of the Proposed Project's alternatives. The Project Team continues to welcome input from the CAG, and will summarize feedback received at future meetings. The next CAG meeting is scheduled for Wednesday, March 29, 2017, and will focus on updates to the development of Alternative 1 (Structural Flood Reduction).

Did You Know?

The Meadowlands Environmental Research Institute (MERI) maintains a network of water quality monitoring stations in the Meadowlands District; three (3) of these monitoring stations are located along the Hackensack River within the Project Area. Two of these stations collect water quality data on a seasonal basis, while the station located at River Barge Park collects data every hour. This data is published on the MERI website (**http://meri.njmeadowlands.gov/**), and can be viewed using the "Environmental Monitoring Data" link under the "Scientific Data" heading.