

Pompton Lakes Flood Advisory Board

Riverwork Action Plan

Revised June 2014

In August of 2010, The Pompton Lakes Flood Advisory Board (FAB) began monitoring the conditions of the Pequannock, Ramapo, and Wanaque Rivers. The board members, our council liaison, and other resident volunteers walked or boated the length of each river, within the borders of Pompton Lakes, and recorded all visible hazards. For the purpose of this assessment, a river hazard is any visible obstruction of the channel, any visible shoal, and areas of river bank erosion. Field work has been conducted on a bi-annual basis, and results have been compiled and analyzed to produce a series of River Hazard Assessment Maps and Riverwork Priority Maps. These maps, in turn, have been used to generate a River Work Action Plan, which was originally submitted to the Pompton Lakes Mayor and Borough Council in July of 2013.

Following the completion of the April 2014 river assessment field work, the FAB compiled the following update to the Riverwork Action Plan. A total of 212 photographs of areas and items of concern were taken during the 2014 field work. All photos are available from either the FAB or the Borough Clerk's office.

Thanks to the continued river maintenance efforts by the borough of Pompton Lakes, we have seen a drop in the normal water levels of two of our three rivers. This update to the Riverwork Action Plan reflects the successful completion of the top priority projects listed in the original document. The FAB is advising the Pompton Lakes Mayor and Borough Council of our recommendations for the continuation of river work and further flood mitigation projects within the Borough of Pompton Lakes.

-- Summary of Proposed Work--

The FAB is advising the Borough of Pompton Lakes to continue stream cleaning and river work operations. The river levels observed this past spring are evidence of the effectiveness of our dedicated efforts to river maintenance. In an effort to aid in the selection of projects, the FAB offers the following recommendations:

1. **Pequannock River (PR)** - Desnagging and Desilting
 - a. The cleaning of debris dams in lower Pequannock, together with general stream cleaning activities performed south of the Van Ness Bridge has resulted in a drop in the normal water level of the river. Due to the lower water level, several shoals in the southernmost section of the river have been revealed. These shoals should be removed as part of the completion of desilting operations on the Pequannock.

- b. The Pequannock River stabilization must be extended north, to the reach of the river immediately north and south of Hamburg Turnpike. Stabilization shall be completed to the satisfaction of all regulatory agencies as soon as possible. This includes restoration of appropriate plantings along the riverbank.
- c. Desilting of the Pequannock River starting at the Van Ness Bridge moving south to the confluence of the Pompton River is necessary to facilitate movement of water through Pompton Lakes and reduce flooding along the western edge of the Borough. Excess silt and soil added to the channel at the time of the construction of the Alexan Riverdale apartment complex and the Van Ness bridge reconstruction has been removed, however due to the redesign of the Van Ness bridge, this area is prone to accumulating silt deposits, and will require periodic desilting. A permanent solution to this issue is needed.

2. Ramapo River (RR)

- a. Desilting and desnagging of the Ramapo River shall continue, and an access agreement must be reached with neighboring municipalities to allow for the removal of debris in the eastern half of the river channel and along the eastern bank. The Ramapo River shall be returned to historic depths.
- b. The Ramapo River Bank Stabilization Project, begun in 2011, requires ongoing maintenance to ensure the survival of newly planted trees.
- c. Levees and floodwalls along the Ramapo River – an earthen dam in the form of a landscaped berm is recommended to be installed along the Ramapo River in the location of Riveredge Drive. The levee shall be constructed as to allow maximum flood storage capacity between the berm and the river.

3. Wanaque River (WR)

- a. Desilting and desnagging of the Wanaque River from VFW Way south to the northern limit of Hershfield Park is a high priority project. A great deal of debris has accumulated in the bends of the river in this reach, and must be removed before sizable debris dams form. The Wanaque River shall be returned to historic depths.

4. Phasing and Prioritizing of Projected Work Plan and Schedule

- a. The FAB conducted fieldwork in April of 2014. The attached Priority Map and River Hazard Map graphically show the priority areas listed in this document.
- b. A great deal of work on our rivers requires the cooperation of private landowners and neighboring municipalities. Securing access to these properties must be done in advance of the start of any stream cleaning operations.
- c. In general, when riverbank stabilization work is performed, the Pompton Lakes FAB strongly recommends that planting operations be completed by a licensed contractor. The contractor shall maintain all plant and vegetative materials for a period of one year until the plantings are fully established and shall replace any plant material that fails to thrive at the end of the establishment period, at no additional cost to the Borough. The plant list shall consist of native vegetation that is well-suited to the flood plain areas, and shall be in accordance with recommended plant material listed in Chapter 7 of the New Jersey Department of Environmental Protection Storm Water Best Management Practices Manual. See Sample Wet Site Plant List.

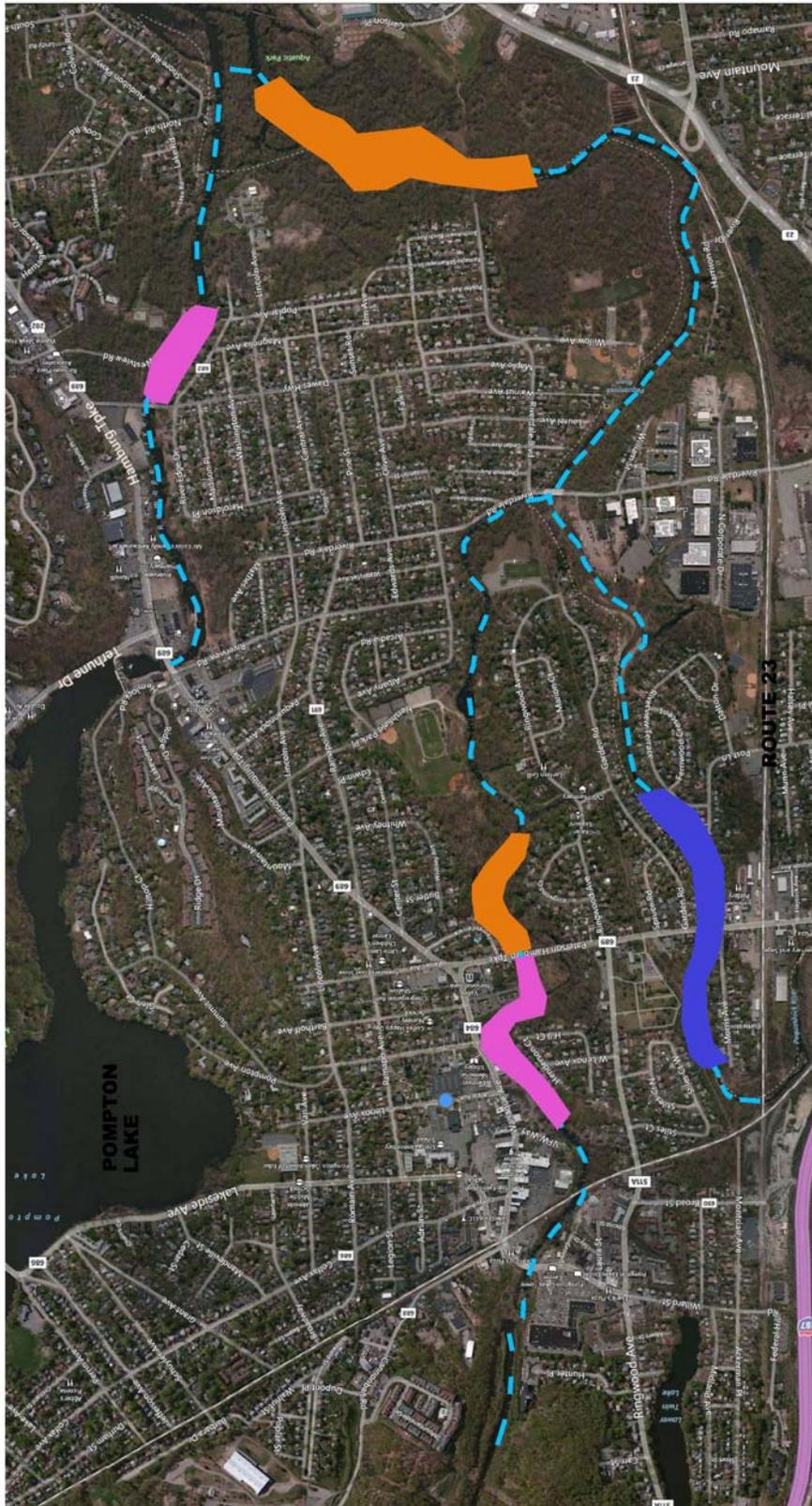
5. Funding and Appropriations

- a. The Borough of Pompton Lakes shall pursue additional funding for additional river work throughout our Borough through continued cooperation with our state and federal legislature and through the support of the creation of an Office of River Management, within NJ Department of Environmental Protection. (Bill A-1871)

6. Communication with PL FAB

- a. Pompton Lakes FAB respectfully requests notice within 48 hours of any meetings either internal to the Borough or external with Federal, State, County, or local area officials regarding the actions taken within the Rivers of Pompton Lakes. This would also include any meetings or recommendations on funding proposals or projects or implementation of mitigation projects.

- b. Pompton Lakes FAB shall continue to conduct river hazardous assessments, as needed, to monitor the ongoing river work and shall report the additional findings to the Mayor and Borough Council.
- c. This document shall be updated as needed, to reflect the changing status of the rivers. The outline presented herein shall serve as a format for tracking and referencing river projects, and shall be used to facilitate clear and open communication between concerned parties, including, but not limited to, the Pompton Lakes Flood Advisory Board, the Mayor of Pompton Lakes, and the Pompton Lakes Borough Administrator, Borough Engineer and Borough Council.



DESILTING AND DESNAGGING PRIORITY AREAS

SUMMARY OF PRIORITY AREAS BY RIVER

- WANAUKE RIVER**
 - A LARGE AMOUNT OF DEBRIS, FALLEN TREES, AND SILT HAS ACCUMULATED IMMEDIATELY SOUTH OF JAMES HIGHWAY
 - SIGNALS ARE FORMING IMMEDIATELY SOUTH OF HAMBURG TURNPIKE
- PEQUANNOCK RIVER**
 - STABILIZATION OF THE RIVERBANK IN THE UPPER REACHES OF THE PEQUANNOCK RIVER, NEAR HAMBURG TURNPIKE
 - REMOVAL OF EXCESS SILT IN THE LOWER PEQUANNOCK, IN THE AREA OF THE RECENTLY REMOVED DEBRIS DAMS

ALL RIVERS ARE IN NEED OF WORK, AND THIS SUMMARY IS NOT MEANT TO IMPLY THAT AREAS NOT INCLUDED ARE FREE FROM PROBLEMS.

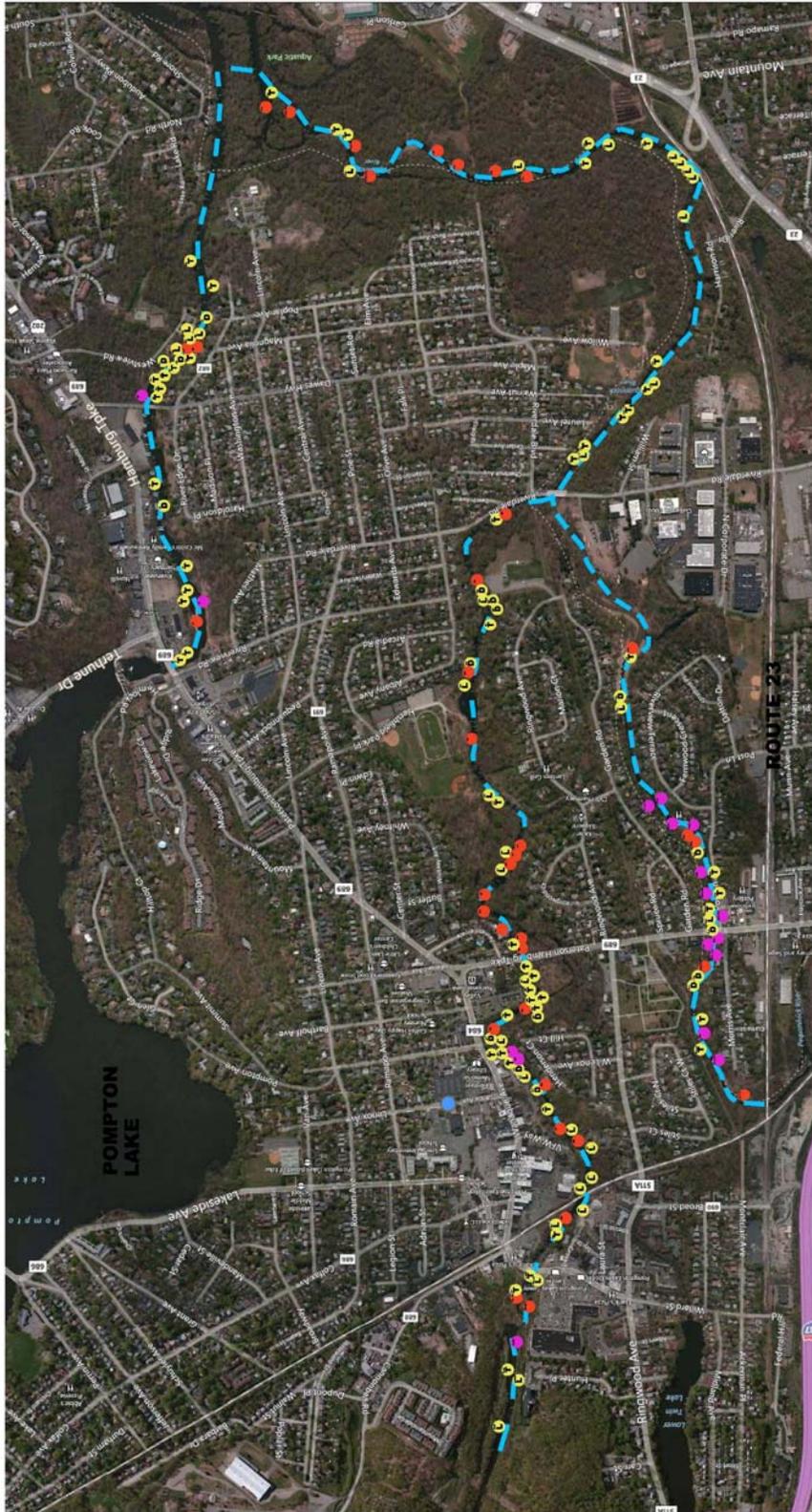
LEGEND

HIGH PRIORITY DESNAGGING (pink bar)

HIGH PRIORITY DESILTING (orange bar)

HIGH PRIORITY RIVER BANK STABILIZATION (blue bar)

NORTH (arrow pointing up)



- LEGEND**
- OBSTRUCTION - DOWNED TREE
 - OBSTRUCTION - DEBRIS / TRASH
 - POTENTIAL OBSTRUCTION - LEANING TREE
 - SHOAL / HEAVY SILT DEPOSIT
 - ERODED AREAS IN NEED OF STABILIZATION
 - PEQUANNOCK RIVER
 - RAMAPO RIVER
 - WANAQUE RIVER

Sample Wet Site Plant List

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT SIZE	SPACING	COMMENTS
TREES						
		Amelanchier canadensis	Shadlow Serviceberry	B&B 8' - 10'	Per Plan	
		Betula nigra 'Heritage'	River Birch	B&B 8' - 10'	Per Plan	
		Celtis occidentalis	Hackberry	B&B 2 - 2 1/2" CAL	Per Plan	
		Fraxinus pennsylvanica 'Cimmzam'	Cimmaron Ash	B&B 2 - 2 1/2" CAL	Per Plan	
		Fraxinus pennsylvanica 'Patmore'	Patmore Green Ash	B&B 2 - 2 1/2" CAL	Per Plan	
		Nyssa sylvatica 'Miss Scarlet'	Black Tupelo	B&B 2 - 2 1/2" CAL	Per Plan	
		Pyrus calleryana 'Valzam'	Valiant Callery Pear	B&B 2 - 2 1/2" CAL	Per Plan	
		Robinia pseudoacacia 'Bessoniana'	Bessoniana Black Locust	B&B 2 - 2 1/2" CAL	Per Plan	
		Taxodium distichum 'Shawnee Brave'	Bald Cypress	B&B 8' - 10'	Per Plan	
SHRUBS						
		Cephalanthus occidentalis	Button Bush	3 Gal 18" - 24"	Per Plan	tolerates standing water - extended period of time
		Clethra alnifolia 'Sixteen Candles'	Summersweet	3 Gal 18" - 24"	Per Plan	tolerates standing water - brief period of time
		Cornus sericea 'Cardinal'	Redtwig Dogwood	B&B 24" - 36"	Per Plan	tolerates standing water - brief period of time
		Cornus amomum	Silky Dogwood	B&B 24" - 36"	Per Plan	tolerates standing water - extended period of time
		Ilex glabra 'Shamrock'	Inkberry Holly	3 Gal 18" - 24"	Per Plan	tolerates standing water - brief period of time
		Ilex verticillata 'Berry Heavy'	Winterberry Holly	3 Gal 18" - 24"	Per Plan	tolerates standing water - brief period of time
		Ilex verticillata 'Southern Gentleman'	Winterberry Holly	3 Gal 18" - 24"	Per Plan	tolerates standing water - brief period of time
		Itea virginica 'Little Henry'	Dwarf Sweetpire	2 Gal 15" - 18"	Per Plan	tolerates standing water - brief period of time
		Itea virginica 'Henry Garnet'	Henry Garnet Sweetpire	3 Gal 18" - 24"	Per Plan	tolerates standing water - brief period of time
		Myrica pennsylvanica	Bayberry	3 Gal 18" - 24"	Per Plan	tolerates standing water - extended period of time
		Physocarpus opulifolius 'Dart's Gold'	Dwarf Ninebark	3 Gal 18" - 24"	Per Plan	tolerates standing water - extended period of time
		Physocarpus opulifolius 'Summer Wine'	Ninebark	3 Gal 18" - 24"	Per Plan	tolerates standing water - extended period of time
		Viburnum dentatum	Arrowwood/Viburnum	B&B 36" - 48"	Per Plan	
PERENNIALS						
		Aquilegia canadensis	Columbine	2 Gal 15" - 18"	18" O.C.	tolerates standing water - extended period of time
		Asclepias tuberosa	Butterfly Milkweed	2 Gal 15" - 18"	24" O.C.	tolerates standing water - extended period of time
		Aster novae-angliae	New England Aster	2 Gal 12" - 15"	15" O.C.	sun
		Calamagrotis canadensis	Bluejoint Reed Grass	3 Gal 18" - 24"	30" O.C.	tolerates standing water - brief period of time
		Coreopsis rosea	Pink Coreopsis	2 Gal 15" - 18"	18" O.C.	sun
		Carex scoparia	Broom Sedge	3 Gal 18" - 24"	24" O.C.	tolerates standing water - extended period of time
		Eupatorium purpureum	Joe Pye Weed	2 Gal 15" - 18"	30" O.C.	tolerates standing water - extended period of time
		Iris versicolor	Blue Flag Iris	2 Gal 15" - 18"	15" O.C.	
		Monarda didyma	Beebalm	2 Gal 15" - 18"	24" O.C.	tolerates standing water - extended period of time
		Panicum virgatum 'Heavy Metal'	Switch Grass	3 Gal 18" - 24"	24" O.C.	shade
		Panicum virgatum 'Cloud Nine'	Switch Grass	3 Gal 18" - 24"	24" O.C.	
		Panicum virgatum 'Shanendoah'	Switch Grass	3 Gal 18" - 24"	24" O.C.	tolerates standing water - extended period of time
		Phlox maculata	Meadow Phlox	2 Gal 15" - 18"	18" O.C.	
		Rudbeckia hirta	Black Eyed Susan	2 Gal 15" - 18"	18" O.C.	
		Rudbeckia fulgida 'Goldsturm'	Black Eyed Susan	2 Gal 15" - 18"	24" O.C.	
		Solidago rigida	Stiff Goldenrod	2 Gal 15" - 18"	18" O.C.	

*NOTE: Size of material at time of installation may be modified at the direction of the owner, engineer, or landscape architect.