SOMERVILLE & STATION LANDFILL AREA

Status Review Meeting March 4, 2010

Borough Project Status & Strategy

- Brief history
- Environmental Activity
- Strategy moving forward
- Objectives
- Opportunities & Hurdles to strategy
- Next steps

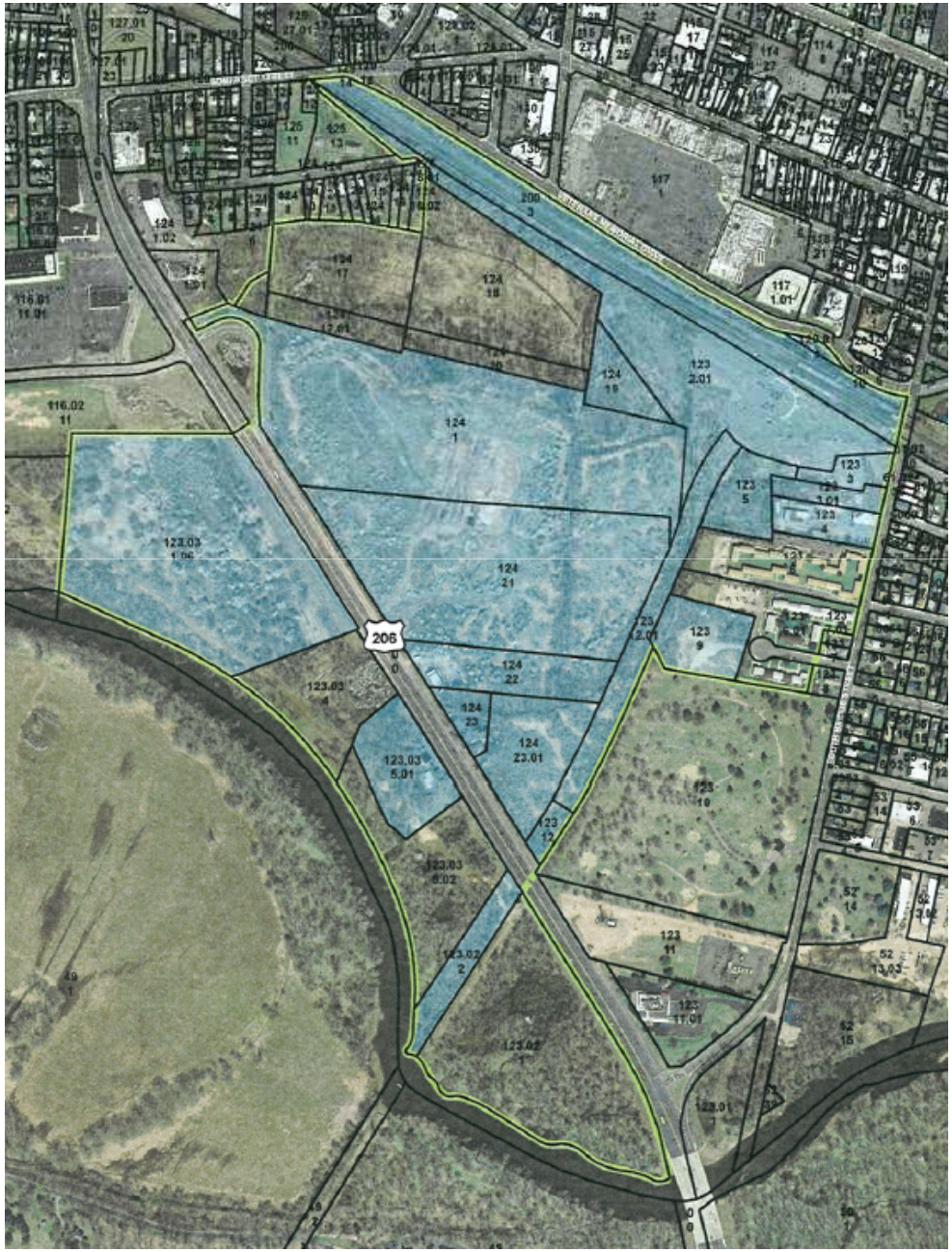
APPLIED TO BECOME A BDA

Designated a "Brownfield Development Area" in September 2009.

As a BDA we are required to annually:

- Review the Vision and Redevelopment Plans
- Report status ongoing environmental activities
- Define any changes or events that effect our ability to achieve or enhance our stated goals and define next steps

KNOWN BROWNFIELDS WITHIN BDA



THE ASSUMPTIONS

From Vision Plan 2006

Landfill

•Bulk of the cleanup cost will be born by the developer

•Construction on the landfill is more expensive for a variety of technical reasons

Wetlands:

•Of the total 116 acres, 75 is buildable

•The existing wetlands is unattractive and needs to be cleaned up and restored

•Very difficult to get permits from DEP for even modest incursions on the wetlands

•Roads can cross wetlands

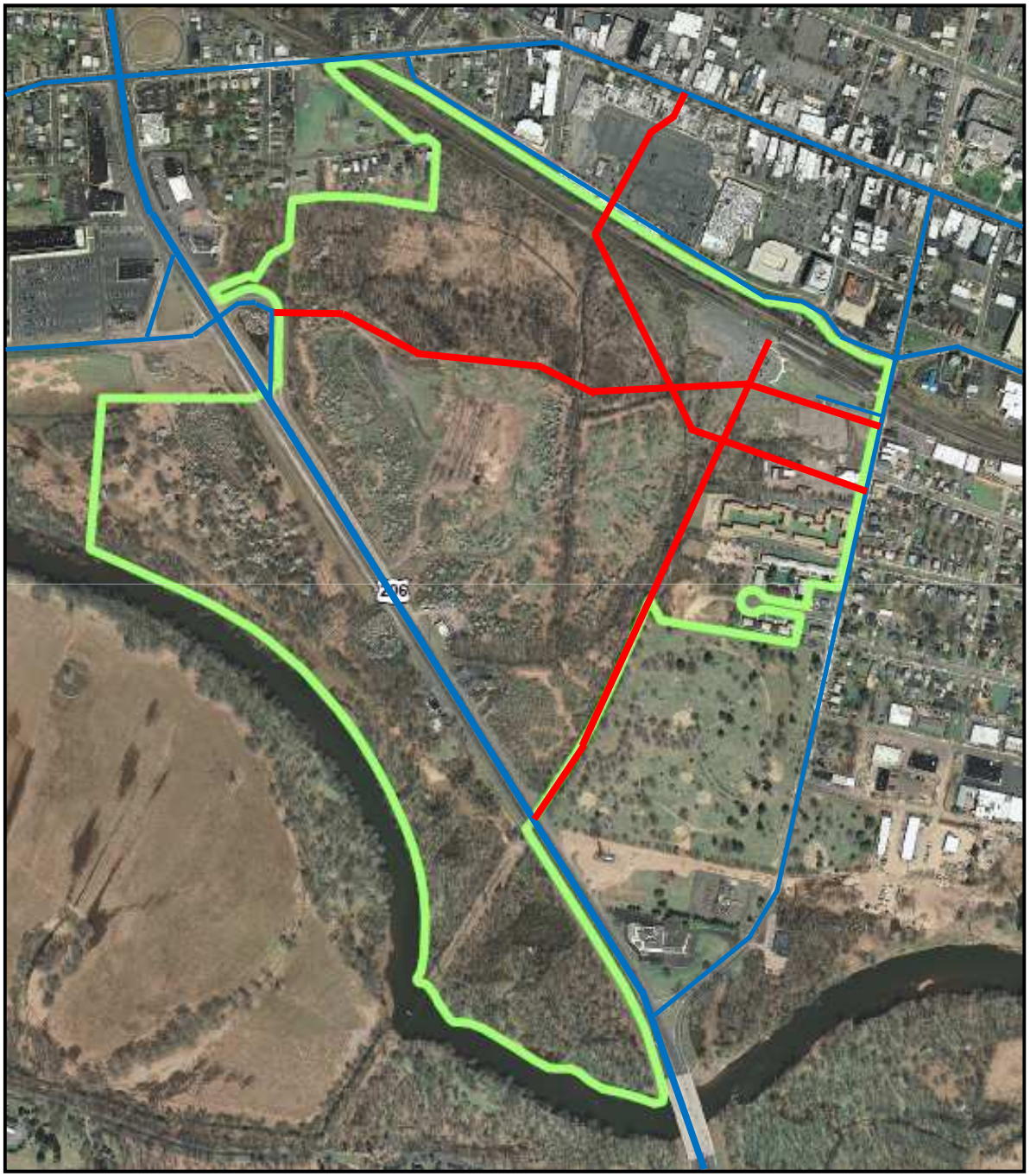
•Trails and boardwalks are permitted

Road Hierarchy

Primary roads are those that should be mapped in any future plan.

Indeed, some variation of these roads can be found in almost any of the earlier plans.
These are the Station Road from Route 206, the Wetlands Parkway from Orlando Drive and the Davenport Street extension.

Secondary roads are those that frame the neighborhoods



THE ENVIRONMENTAL CHALLENGE

ENVIRONMENTAL ACTIVITY

Activities Completed	Findings	Implications / Path Forward
• Stream reconnaissance and sediment/surface water (SW) sampling •Test pitting, soil and leachate sampling •Wetlands/Flood Hazard Area delineation and evaluation	• Landfill wastes have impacted the soils, sediments and surface water with various contaminants including VOCs • Waste materials are present within and beneath the wetlands, channel of the SW feature and adjacent areas • Surface water feature is potentially a losing stream • Off-Site transport of contaminants via surface water is potentially occurring and needs to be evaluated	• The levels and distribution of identified contaminants are consistent with historic MSW landfill and do not suggest heavy industrial disposal • The future Green Seam contains waste sources that will require active remediation and control • Quantification of the volume and quality of surface water that discharges to the overburden/bedrock • An evaluation of the volume and quality of water discharging to the Raritan River
Non-invasive geophysical investigations	The overburden/bedrock interface and landfill structure have been evaluated via several methods	These data provide a basis for the future scope and extent of future RI/RA activities

ENVIRONMENTAL ACTIVITY

Activities Completed	Findings	Implications / Path Forward
Membrane interface probe (MIP) investigation	Elevated levels of VOCs ("hot spots") were not ubiquitous	A broader groundwater investigation of the overburden is favored over the initially scoped intensive soil sampling
Surface landfill gas survey	Very little evidence of gas emanation from the landfill	Data are consistent with the age of the landfill and historic MSW landfill operations
Willowstick AquaTrack Demonstration	Preferential flow paths were observed in the overburden, full scale implementation of this method is not necessary for the bedrock	A traditional drilling/down-hole geophysical investigation is the most appropriate method to characterize bedrock groundwater at the Site
• Down-hole geophysical investigation of existing bedrock monitoring wells • Initial bedrock conceptual site model evaluation	• Only a few interconnected fracture sets from the existing wells have yielded information about bedrock ground water • The highest VOC conc. have historically been observed in off-Site well 10D • The contaminant signatures of off-Site vs. on-Site wells differ	• An iterative approach to the bedrock investigation is appropriate • Bedrock investigation approach needs to evaluate potential contributions from off-Site sources and regional groundwater contamination

ENVIRONMENTAL ACTIVITY

Activities Completed	Findings	Implications / Path Forward
Baseline Ecological Evaluation	Site-specific contaminants of ecological concern, sensitive natural resources and associated pathways have been identified	Additional ecological investigations are necessary pursuant to N.J.A.C. 7:26E-4.7

ENVIRONMENTAL ACTIVITY

Completed

Green Seam Recon.
SW/sediment sampling
Test Pitting (phase 1)
Geophysical Surveys
Landfill Gas Survey
MIP Investigation
Willowstick

Current

Revised SI/RI scope
Soil sampling
OB well network install
Finalize BEE
Test Pitting (phase 2)
Resolve permit issues
Data reduction/analysis
Non-landfill investigation

Planned Activities

SW flow/quality evaluation
Remedy conceptual design
OB GW sampling
Test Pitting (phase 2)
Eco. Risk Assessment
RI/RAW
Green Seam Design

RAW

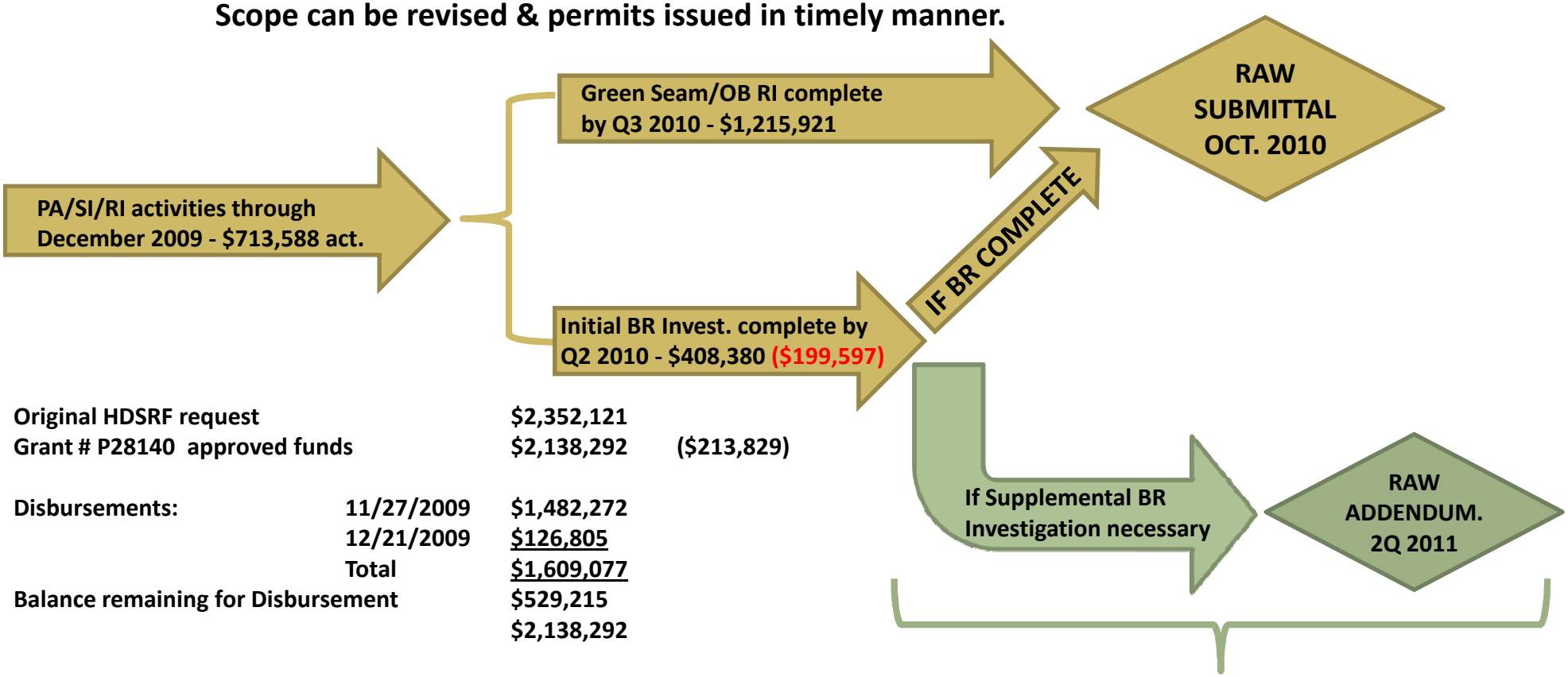
Completed
Existing MW Geophysics
Initial CSM Evaluation
Willowstick

Current
Phase 1 Well Installs
Bedrock Data Analysis

Planned
Phase 2 Well Installs
(contingency)

STRATEGY MOVING FORWARD

We have the opportunity to be shovel ready by the end of the year!
Utilizing the HDSRF Funds already approved,
IF,
Scope can be revised & permits issued in timely manner.



Original HDSRF request		$2,352,121	
Grant # P28140 approved funds		$2,138,292	($213,829)
Disbursements:	11/27/2009	$1,482,272	
	12/21/2009	$126,805	
	Total	$1,609,077	
Balance remaining for Disbursement		$529,215	
		$2,138,292	

		Opening Balance	$2,138,292
How spent	through 12/2009	$713,588	$1,424,704
Current projected OB/RI/RAW		$1,215,921	$208,783
Current projected BR Invest		$408,3080	($199,598)
	Totals	$2,337,889	
	Shortfall	($199,598)	

Objective

<u>The Boroughs objective remains:</u>

“Commence redevelopment of site as soon as possible, while working with regulators to ensure environmental compliance”

Opportunities & Hurdles to Strategy

Opportunity

Revise scope to allow RAW for Green Seam and overburden be submitted by end Q3 2010

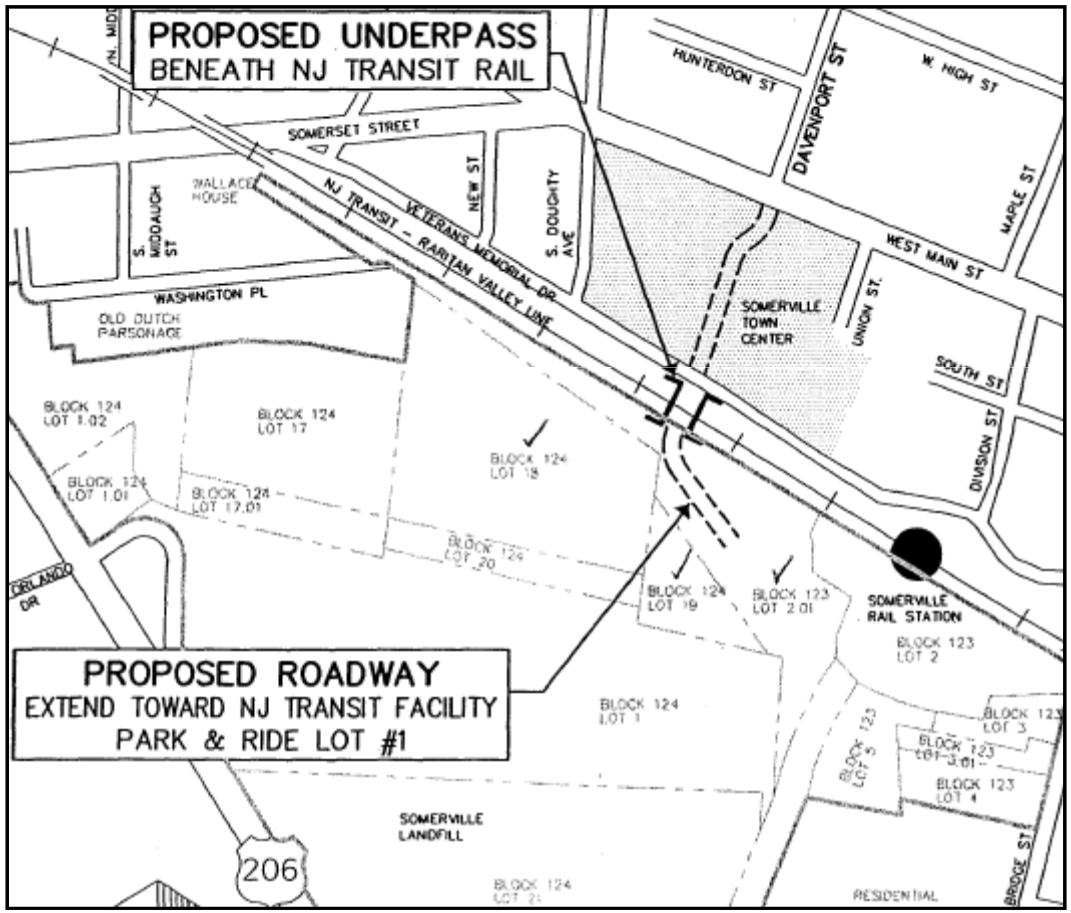
Hurdles

Floodplain and Wetlands Permits

- Issuing delays could slow the project
- Timing of review and responses
- Requests for further information
- Challenges to proposed scope

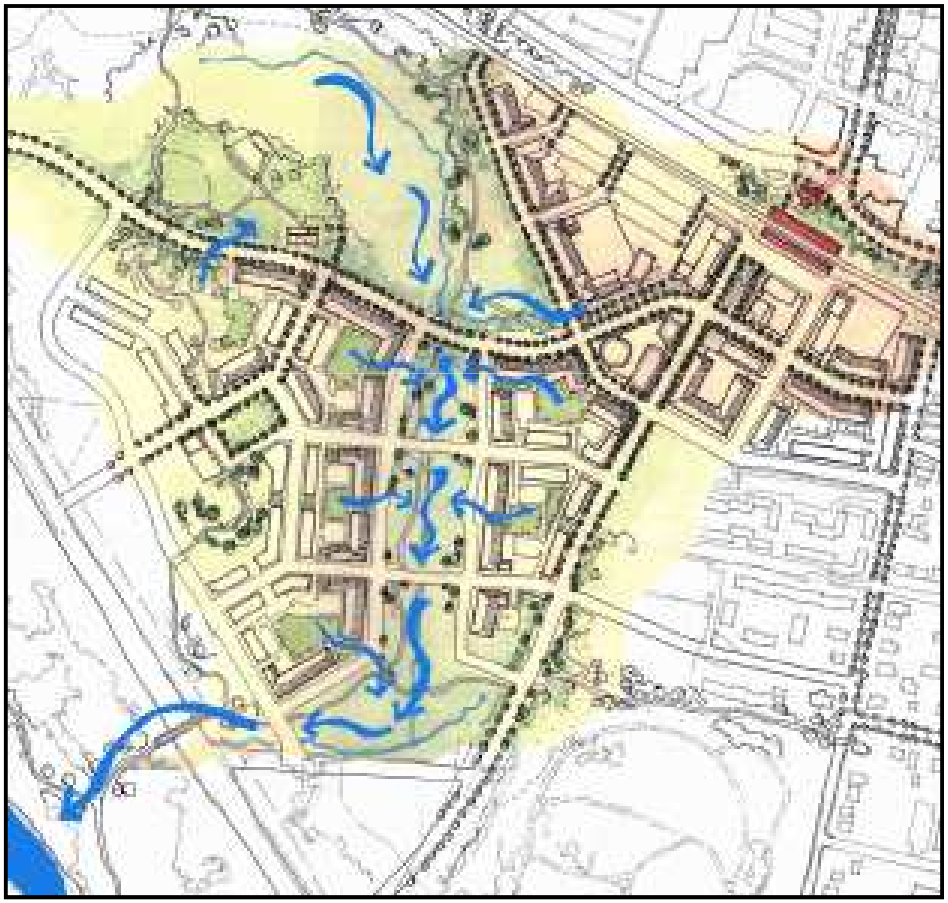
Floodplain and Wetlands Permits

Davenport Street Tunnel



Floodplain and Wetlands Permits

Green Seam Investigations



Next Steps

- Letter to DEP revising scope and defining next steps
- Apply for permits
- Release remaining funds