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MALCOLM PIRNIE, INC.
INDEPENDENT ENVIRONMENTAL ENGINEERS, SCIENTISTS & CONSULTANTS

January 5, 2005

Mr. Ronald V. Brattain
Project Planner
CENAN-PL-FF
U.S. Army Corps of Engineers, New York District
26 Federal Plaza, Room 2145
New York, NY 10278-0090

Re: Report for October 20 – 22, 2004 Field Reconnaissance
Lower Passaic River Restoration Project

Dear Mr. Brattain:

Sites have been identified by the project Partners and Trustees for consideration as restoration sites under the Lower Passaic River Restoration Project. To understand the potential for restoration opportunities for these sites, field reconnaissance (recon) is being conducted. The purpose of this report is to document the 1st round of field recon performed in October 2004. The data collected by the restoration team during the recon will provide basic information necessary to evaluate and screen sites for their potential as candidate restoration areas. In the future, a detailed summary report will be prepared by the non-federal sponsor, New Jersey Department of Transportation, Office of Maritime Resources (NJMR), to document all recon, site screening, and selection processes.

This first round of field recon was conducted on the Lower Passaic River between October 20th and October 22nd 2004. Field data sheets were completed for each site visited. Data collected during the recon is included on the Field Data Sheets (Attachment 1). The field data sheets also include photographs that were taken during site reconnaissance. In some cases where photographs were not available, photographs from a site visit on December 19, 2003 were used. The data included on the field sheets are based on the observations made by the field team. In some cases, data was added to the field sheets from other sources (e.g., GIS). Attachment 2 includes maps illustrating the site locations.

Activities for Wednesday, October 20, 2004
Some members of the team met at Caven Point NJ and boarded the US Army Corps of Engineers (USACE) vessel 'Hudson', which proceeded to North Cove, Manhattan, to meet the remaining field team members.

Field personnel on this first day consisted of Lisa Baron of the New Jersey Department of Transportation (NJMR), Bill Shadell (USACE), Reyhan Mehran of the National Atmospheric and Oceanic Administration (NOAA), Carl Alderson of NOAA, John Rollino of TAMS/EarthTech (TAMS) and Brian Gillen of Malcolm Pirnie, Inc (Malcolm

Pirnie). The team transferred from the Hudson to smaller boats to visit Oak Island Yards (including 24TMS) and several other potential restoration sites (19TMS, 20TMS, and 21TMS) located in the lower section of the Passaic, near Newark, NJ.

A significant portion of the day was spent at the Oak Island Yards site. Evaluation of the shoreline of other, estuarine sites was hampered to some degree by high water levels.

Activities for Thursday, October 21, 2004
Field personnel consisted of Lisa Baron (NJDOT), Bill Shadel (USACE), Reyhan Mehran of NOAA, John Rollino of TAMS, and Brian Gillen of Malcolm Pirnie. As on the previous day, field personnel transferred from the Hudson to a smaller vessel; the team made a decision to visit as many sites as possible in order to obtain an overview of potential restoration areas.

The team traveled upriver and visited sites: 6N, 7N, 8N, 9N, 10N, 12N, 14N, 15N, 16N, 17N, 19N, 20N, 21N, 22N, 23N and 24N; 4TMS, 5TMS, 6TMS, 7TMS 8TMS, 9TMS, 10TMS, 11TMS; 2PRC and 3PRC. The majority of these sites were relatively small riverine strips, though a few were subtidal sites. The team visited the Second River – Passaic River confluence, but was unable to progress any significant distance up the Second River due to the relatively shallow water depth of the river. Because of the great number of sites, most observations were made from the boat; on a few occasions the team left the boat to examine a site (e.g., 6N, 12N) more closely.

Activities for Friday, October 22, 2004
Field personnel for the third and final day of the first round survey consisted of Bill Shadell (USACE), Reyhan Mehran of NOAA, John Rollino of EarthTech (TAMS) and Brian Gillen of Malcolm Pirnie. This day's survey was conducted by automobile, rather than boat.

In the morning, the field survey team visited the BASF property at Kearny Point (including 29N, 22TMS, and 23 TMS), New Jersey. Doug Reed Green of BASF met with the team, provided a brief orientation and escorted the team around the site. In the afternoon the team visited Kearny Marsh, but because of excessive vegetative growth (principally *Phragmites*), was unable to find a suitable observation point to view any significant portion of the site that day.

Observations
The potential restoration sites observed during this three day survey could be categorized as:

- Former Industrial Areas (e.g., Oak Island Yards, Kearny Point); although predominantly upland habitat, these sites do include, to some degree, wetland and open water habitat.
- Riverine/Estuarine Strips – linear sites that typically consisted of intertidal mudflats often bordering thin strips of undeveloped uplands; most of the sites visited on Thursday, 10/21/04 were of this type. The US Fish and Wildlife Service classifies Passaic River habitat as Estuarine below River Mile 8.5, and as Riverine above that point.
- Tributaries that flow into the Passaic River (e.g., Second River).
- Subtidal Sites – areas that are either permanently or predominantly flooded, with little or no associated shorelines or uplands (e.g., 21 TMS).

A variety of restoration activities are possible at Former Industrial Areas, such as removal of invasive flora and replacement with native species; regrading of topography to create new wetland and open water areas and, where possible, creation of new tidal channels, re-establishing tidal connections or improving existing hydrology. In the case of Kearny Point, and possibly Kearny Marsh, new opportunities for public access could be created through the installation of nature walks. Oak Island Yards has several relic manmade structures and fill areas that could be removed to improve habitat. Contaminated soil/groundwater could be an issue at some of these sites.

Possible restoration activities at estuarine/riverine strips include the removal of invasive flora, with subsequent replacement with indigenous species; biostabilization of the shoreline; regrading of topography to create new wetland areas and, were possible, creation of new tidal channels. Man made structures could be removed, where necessary. As many of these locations are adjacent to local parks, the possibility exists for restoration activities to result in an increase in public access and use of these areas.

Tributaries were not significantly surveyed in the October survey, and must be evaluated further in order to develop an understanding of possible restoration activities.

Although the project area includes significant areas of subtidal habitat, only a few strictly subtidal sites were evaluated for restoration potential during the October survey; possible restoration activities at such sites could include the installation of fish aggregating structures, e.g., rock piles.

Summary

During the recon activities, the majority of the candidate sites on the 17 miles of the lower Passaic River were observed from the water, with the following exceptions: (1) sites above River Mile (RM) 14.4 were not observed due to access restrictions (low bridge clearance) and (2) Sites between RM 2.6 – 5.6 were not observed due to on-water

time constraints (i.e., vessel was used/available for 2 days). Larger sites, such as Oak Island Yards and Kearny Point were also observed for longer periods from land and water.

A variety of potential restoration sites in the lower Passaic River were observed between October 20th and October 22nd 2004, many of which present a range of restoration possibilities. As survey activities continue, it will be possible to make informed decisions regarding which sites make the best candidates for restoration activities and should be evaluated in greater detail.

Recommendations

We recommend that the recon activities continue as planned for the other identified sites (as of this writing, additional recon activities have been initiated). The information contained herein should be used as the basis for further discussions (e.g., Restoration Workshops) and screening of sites. As more information becomes available, the data sheets should be updated for the summary report. Finally, it is recommended that the sites that are contiguous be grouped and renumbered for clarity.

If you have any questions regarding this submittal, please do not hesitate to contact me at (914) 641-2628 or Anthony Russo at 914-641-2679.

Very truly yours,

MALCOLM PIRNIE, INC.

Scott E. Thompson, P.E.
Project Manager

Attachment 1: Field Data Sheets
Attachment 2: Maps

cc: USACE: R. Brattain (4 copies)
NJMR: L. Baron (2 copies)
NOAA: R. Mehran (2 copies)
USEPA: A. Yeh (4 copies)
TAMS: M. Moese (2 copies)
MP: B. Fidler, K. Goldstein, A. Russo, B. Gillen

4622-002

Attachment 1

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/20/04	Field Personnel:	WPS, RM, CA, JP, LB, BG
Time:	9:50 AM	Last High/Low Tide:	Low: 8:14 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: Oak Island (including 24TMS)				
Location Description: NEWARK (right bank descending) Former industrial site, vacant lot.				
Approx. Physical Dimensions of Site: 8400′ × 2700′				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial	X	RR to South; Shipping containers to North; Police Range to West
Residential		
Recreational		
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: Tidal channel next to RR tracks contains various debris –drift wood, junk etc. Channel has tidal gate, apparently stuck in open position		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling	X	Historic fill
Debris	X	Especially in tidal channel
Industrial Facilities / Uses		
Other: __ _____	X	Petroleum pipeline runs through property
Other: Old structural remnants_____	X	Old concrete pads, pipe outlets, etc

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1 (Beach)	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)	10		
Fine (Sand/Silt/Clay)	90		
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	Shoreline
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways: Drainage ditch runs East/West on Southern edge of property; tidal gate		

Table 6 - Bank Assessment (if applicable)								
Stability	**Percent Bank Erosion**	**Percent Composition (0-100%)**		
		1	**2**	**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal	< 5%			
Moderately Stable- infrequent small areas of erosion mostly healed	5 - 30%	100		
Moderately Unstable- areas of erosion present, unhealed	30 - 60%			
Unstable- eroded areas frequent along straight sections, obvious bank sloughing	60 - 100%			
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub urban				phragmites	mugwart	sumac
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland				phragmites		
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
	gulls	2	shoreline
	heron	1, 1	Drainage ditch, over phragmites upland
	Sparrows, junko	dozens	Throughout upland
Mammalian	Dog		Through scat only
	rabbit	1	Phragmites near beach
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent	spartina	5-10%	Shoreline
	phragmites	70%	Shoreline
Shrub	mugwart	20%	Shoreline
	sumac		upland
Trees	Tree of Heaven		upland

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris	X	
Lower Grade	X	
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)		
Eliminate Stresses	X	
Hydrology Alterations / Improvements	X	
Other Habitat Enhancements	X	
Human Use		
Other		

Restoration Concept Narrative:

- Remove fill to create Tidal wetlands.
- Bring water from the beach or southern creek.
- Possible public access, but nice secluded area for fauna.
- See additional concepts on Figure B previously developed for this site.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Additional upland vegetation: Japanese knotweed; Virginia creeper

Upland is vegetation is approximately 90% herbaceous 5% shrub 5% trees

Oak Island Shoreline

Oak Island –Tidal Creek on western edge of site

Interior of Oak Island: Western portion of site, looking South

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/22/04	Field Personnel:	WPS, RM, JR, BG
Time:	11:00 AM	Last High/Low Tide:	Low: 10:43 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: Kearny Point (29N, 22TMS, 23TMS)				
Location Description: KEARNY (left bank descending) Former industrial site				
Approx. Physical Dimensions of Site: 3000′ × 1600′ (triangular)				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial	X	~ 1/3 property used by BASF;
Residential		
Recreational		
Community (school/church)		
Vacant	X	~ 2/3 property – possibly available for restoration (city owned)
Access (land or water)	X	Land slopes into extensive mudflats*
Pollution/Contamination	X	Past operations, also from adjacent Westinghouse property
Observations: * from "Access": BASF will provide chemistry data collected from mudflat areas. BASF property (1/3 site) is currently being remediated to NJ industrial standards.		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	2 discharges within 500 ft. of site: Kearny STP; Columbia Terminals Inc.
Storm Drains		
Dumping / Filling	X	Entire site is built on historic fill
Debris	X	from past use
Industrial Facilities / Uses		
Other: _Soil_____	X	Being remediated
Other: Adjacent properties_____	X	Westinghouse site

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1 (shoreline)	**2 (upland)**	**3 (mudflats)**
Bedrock			
Boulder/Rip Rap	60%		
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)	40%		100%
Organic			
Open Water (unknown)			
Other – Historic fill		100%	

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown	X	Upland areas have open water pockets –unknown duration
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**		**Percent Composition (0-100%)**			
					1	**2**	**3**	
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%		X	NA	NA	
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1 shore**	**2 upland**	**3 mudflat**	**1**	**2**	**3**
Forested		10			Cottonwood	
Scrub/Shrub		5		Sumac	Cottonwood	
Old Field		15		Spartina	Goldenrod	
Urban (describe: under remediation		70				
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland	10					
Herbaceous Wetland	60					
Mud Flat	30		100			
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
	Gulls	3	Open water
	Heron	1	Seen flying over open water
	House sparrows	26	Throughout site
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent	Spartina		Shoreline
	Phragmites		Shoreline and scattered throughout site
Shrub	Golden rod		Above rip-rap
	Mugwart		Above rip-rap
Trees	Cottonwoods		Upland areas

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade	X	Create tidal creeks
Raise Grade	X	Some mudflat areas
Remove Invasive Species		
Replant Indigenous Species	X	In marsh
Flatten Shoreline		
Biostabilize (Shoreline)		
Eliminate Stresses	X	Remove contaminants
Hydrology Alterations / Improvements	X	Create / deepen channels
Other Habitat Enhancements		
Human Use	X	Public access
Other		
Restoration Concept Narrative: Add clean fill in some intertidal area to create wetlands; deepen existing tidal channels and create new tidal channels to improve faunal access and use.		

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Kearny Point Shoreline 1: Looking South

Kearny Point Shoreline 2: Looking South/Southwest

Kearny Point: Interior of Site

Kearny Point Interior, looking North (colors are due to industrial dyes)

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/20/05	Field Personnel:	WPS, RM, CA, JR, LB, BG
Time:	AM	Last High/Low Tide:	Low: 8:14
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 21TMS				
Location Description: NEWARK (right bank descending) Narrow, intertidal, with bulkhead				
Approx. Physical Dimensions of Site: 2000′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial	X	Oil tanks
Residential		
Recreational		
Community (school/church)		
Vacant	X	Wetlands near southern portion of site.
Access (land or water)		
Pollution/Contamination	X	NPL site "Syncon Resins" on opposite bank
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	May be underwater. 3 PSE&G Essex Generating Station discharges; Spectraserv and S&W Waste Inc. on opposite bank.
Storm Drains	X	May be underwater
Dumping / Filling	X	Bulkhead, riprap
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap	20		
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)	80 (probable mudflat)		

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	Very small fringe
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	Estuarine mudflat
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**	**3**	
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%	100				
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:	5%	Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub	100			Ailanthus	knotweed	
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat	99					
Open Water / Emergent	1					

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent	Spartina	10	
	mugwart	30	
Shrub	Goldenrod	10	
Trees	Ailanthus	30	

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris	X	
Lower Grade		
Raise Grade	X	
Remove Invasive Species	X	Add Spartina at fringe?
Replant Indigenous Species		
Flatten Shoreline		
Biostabilize (Shoreline)		
Eliminate Stresses	X	
Hydrology Alterations / Improvements		
Other Habitat Enhancements	X	Benthic structure
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 21TMS looking West

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/20/04	Field Personnel:	WPS, RM, CA, JR, LB, BG
Time:	AM	Last High/Low Tide:	Low: 8:14 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: 19TMS and 20TMS				
Location Description: NEWARK (right bank descending) See additional comments on page 5				
Approx. Physical Dimensions of Site: 1000′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial	X	
Residential		
Recreational		
Community (school/church)		
Vacant	X	"Old field (<25% brush covered)"
Access (land or water)		
Pollution/Contamination		
Observations: Fenced		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	2 discharges within 500' of site: American Ref – Fuel Co.; PSE&G Essex Generating Station
Storm Drains		
Dumping / Filling	X	Possible
Debris		
Industrial Facilities / Uses		
Other: _____	X	Invasive flora
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)	Site visited near High Tide		

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	Plus upland
Subtidal		
Intertidal		
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded	X	
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**		**Percent Composition (0-100%)**			
					1	**2**	**3**	
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

High water – shore not visible – likely stable

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris	X	
Lower Grade	X	
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)		
Eliminate Stresses	X	
Hydrology Alterations / Improvements	X	
Other Habitat Enhancements	X	Upland Buffer?
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

<u>19 TMS</u>: Edge appears soft

Seems mostly upland
40% Trees (80% cottonwood, Ailanthus etc. 20%)
10% Scrub Shrub
50% herbaceous – Phragmites (30%) Mugwort (40%)

Shoreline unknown (visited at high water) – some old wooden bulkhead visible

Same possibilities as 20 TMS.

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

<u>20 TMS</u>: Difficult to see from shore
Phragmites: ~ 80%
Ailanthus, cottonwood : 20%

Gas pipeline Crossing

Tidal Creek: 12' deep at 20' off
Floodplain
Invasive removal
Possibly contiguous with 19 and 18.

20TMS (tidal creek in center of picture)

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JP, LB,BG
Time:	AM	Last High/Low Tide:	Low: 10:24 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: 24N				
Location Description: KEARNY (left bank descending) Low site, 3' above high water; lawn, few trees @ edge plus water hemp (a specific type of plant).				
Approx. Physical Dimensions of Site: 800′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	
Industrial		
Residential		
Recreational		
Community (school/church)		
Vacant	X	Deciduous brush/shrub land
Access (land or water)		
Pollution/Contamination		
Observations: Sediment fence at water's edge		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	3 Newark City discharges, 2 Kearny Town discharges, Spartech Compound IMI, Spartech Polycom IMI
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 24N looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:	AM	Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 21N, 23N, 11TMS (landward)				
Location Description: KEARNY (left bank descending) Riparian fringe and flats adjacent to road all forested. 45° slope rock and soil – natural?				
Approx. Physical Dimensions of Site: 6000′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	
Industrial		
Residential	X	
Recreational	X	
Community (school/church)	X	"Athletic fields (Schools)"
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: Hard to see what 11TMS is –probably maintained lawn with trees adjacent to road: public access?		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	3 Newark City discharge points within 500 ft. of site
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 11TMS looking East

Site 11TMS looking East

Site 23N looking East

Site 21N looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:	AM	Last High/Low Tide:	Low: 10:24 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: 20N and 22N				
Location Description: KEARNY (left bank descending) Steep riparian edge approximately 30′ high. All forested				
Approx. Physical Dimensions of Site: 2000′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	Northern portion of site is commercial.
Industrial		
Residential	X	Residential area east of site.
Recreational	X	
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 22N looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	PWS, RM, JR, LB, BG
Time:	AM	Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 19N				
Location Description: KEARNY (left bank descending) fringe adjacent to park and mudflat.				
Approx. Physical Dimensions of Site: 1500′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	Commercial area in southern portion of site.
Industrial		
Residential		
Recreational	X	
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: Boat ramp near Kleinwagen Service Center, @ Golomb sign		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future restoration workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Additional Comments and Observations (use additional sheets if necessary):

Site 19N looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:		Last High/Low Tide:	Low: 9:55 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 8TMS, 9TMS, 10TMS				
Location Description: NORTH ARLINGTON (left bank descending) Cable crossing with commercial buildings and lots; very small riparian fringe				
Approx. Physical Dimensions of Site: 3500′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	
Industrial		
Residential	X	With road; area east of site is residential.
Recreational	X	
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: 3 old wood piers, structures		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal		
Subtidal		
Intertidal		
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded		
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)		
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability				**Percent Bank Erosion**	**Percent Composition (0-100%)**			
					1	**2**	**3**	
Stable- bank stable; evidence of erosion or bank failure absent or minimal				< 5%				
Moderately Stable- infrequent small areas of erosion mostly healed				5 - 30%				
Moderately Unstable- areas of erosion present, unhealed				30 - 60%				
Unstable- eroded areas frequent along straight sections, obvious bank sloughing				60 - 100%				
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 8TMS looking East

Site 9TMS looking East

Site 10TMS looking East

Site 10TMS looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB,BG
Time:	1:20 PM	Last High/Low Tide:	Low: 9:55 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 7TMS				
Location Description: NORTH ARLINGTON (left bank descending) Large recreational park and mudflats, large boulders.				
Approx. Physical Dimensions of Site: 500′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	Northern portion of the site is commercial.
Industrial		
Residential		
Recreational	X	Baseball fields.
Community (school/church)		
Vacant	X	Managed wetland in built up maintained recreational area; deciduous wooded wetlands .
Access (land or water)		
Pollution/Contamination		
Observations: Site has small creek, did not visit. Boat Ramp @ Nutley Bridge (AKA De Jessa Bridge) – upstream, left bank		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 7TMS looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:		Last High/Low Tide:	Low: 9:55 AM
Photos #:			

Table 1 - General Information				
Site Name / Number: 17N				
Location Description: LYNDHURST (left bank descending) riparian mudflat				
Approx. Physical Dimensions of Site: 200′ × 100′				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	Commercial area in southern portion of site.
Industrial		
Residential	X	
Recreational	X	
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: *Ella's Park – boat access for EPA?		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Additional Comments and Observations (use additional sheets if necessary):

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:		Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 16N, 3PRC, 6TMS				
Location Description: LYNDHURST (left bank descending) Riparian mudflat				
Approx. Physical Dimensions of Site: 4400′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial		
Residential	X	
Recreational	X	Baseball fields southwest of site
Community (school/church)		
Vacant	X	"Deciduous forest (>50% crown closure)"
Access (land or water)		
Pollution/Contamination		
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Additional Comments and Observations (use additional sheets if necessary):

Site 6TMS looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR,LB,BG
Time:		Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 15N				
Location Description: LYNDHURST (left bank descending) Shallow Cove – flat and riparian edge				
Approx. Physical Dimensions of Site: 1200′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial	X	Industrial area near southern portion of site
Residential	X	Residential area southeast of site
Recreational		
Community (school/church)		
Vacant	X	"Deciduous forest (>50% crown closure)"
Access (land or water)		
Pollution/Contamination		
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1		**2**		**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

No rooted aquatic/emergent vegetation

Site 15N looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:	PM	Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 14N				
Location Description: RUTHERFORD (left bank descending) Cove – riparian mudflat				
Approx. Physical Dimensions of Site: 700′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial		
Residential	X	
Recreational	X	
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: Park and houses		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling	X	
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap	X		
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)	X		
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1	**2**	**3**		
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%	X				
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:	30-50	Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1 edge**	**2 land**	**3**	**1**	**2**	**3**
Forested	100					
Scrub/Shrub						
Old Field						
Urban (describe:___lawn)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Additional Comments and Observations (use additional sheets if necessary):

Site 14N looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	PWS, RM, JR, LB, BG
Time:	PM	Last High/Low Tide:	Low: 10:24 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: 12N				
Location Description: PASSAIC (right bank descending) Culverted Stream Confluence – other side of highway small stream 3-10 ft width (factory bridge)				
Approx. Physical Dimensions of Site: mouth of stream is depicted as site 12N (stream dimension are unknown)				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial		
Industrial	X	Industrial area immediately south of site
Residential	X	Stream behind homes
Recreational		
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: Highway		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains		
Dumping / Filling	X	Concrete edge, culvert
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)	X		

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1	**2**	**3**		
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%	X				
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:	4	Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested	80					
Scrub/Shrub	20					
Old Field						
Urban (describe:_____)						
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees	Mulberry		
	Norway Maple		
	Locust		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species		
Replant Indigenous Species		
Flatten Shoreline		
Biostabilize (Shoreline)		
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements	X	See below
Human Use		
Other		

To be determined:

- Possible sediment basin.
- Add aquatic structure.
- Promote fish passage.

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	
Rationale for Site Ranking	

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Additional Comments and Observations (use additional sheets if necessary):

Creek Inland
Covered by roads from river to ~ 300' inland

Site 12N looking West

Stream running through interior of 12N

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB,BG
Time:	AM	Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 10N and 5TMS				
Location Description: RUTHERFORD (left bank descending) See additional comments on page 5				
Approx. Physical Dimensions of Site: 3500′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	
Industrial	X	
Residential	X	
Recreational	X	Adjacent to Baseball Fields
Community (school/church)		
Vacant	X	Deciduous brush/shrub land; opposite bank also contains deciduous forest
Access (land or water)		
Pollution/Contamination		
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls		
Storm Drains	X	At 10N
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)	X		
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1	**2**	**3**		
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%	X				
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:	45	Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested (edge)	100					
Scrub/Shrub						
Old Field						
Urban (describe: Lawn/park)		100				
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris	X	Maybe at home
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Possible edge softening lawnward.
- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures; biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	
Rationale for Site Ranking	

Additional Comments and Observations (use additional sheets if necessary):

Concrete bank 1/3 of length (park)
Natural bank 2/3 (residential)

Some mudflats

Site 5TMS looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Site 5TMS looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR,LB,BG
Time:	AM	Last High/Low Tide:	Low: 10:24 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: 8N, 7N, 9N				
Location Description: EAST RUTHERFORD (left bank descending) Monument and Park				
Approx. Physical Dimensions of Site: 1000′ linear feet				
System Elements (check one):	Marine ( )	Estuarine (X)	Riverine ( )	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	
Industrial	X	
Residential	X	
Recreational	X	
Community (school/church)		
Vacant		
Access (land or water)	X	
Pollution/Contamination		
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	Within 500 ft. of discharge: "Joashlin Construction (formerly River Oil)"
Storm Drains		
Dumping / Filling	X	
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)			
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**	**Percent Composition (0-100%)**				
				1	**2**	**3**		
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%					
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested (at edge)	100					
Scrub/Shrub						
Old Field						
Urban (describe: Lawn)		100 (land)				
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees			

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species	X	
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		

Restoration Concept Narrative:

- Remove invasive flora.
- Revegetate with appropriate indigenous species.
- Where possible, remove manmade structures.
- Biostabilize shoreline.
- Regrade as necessary.

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

<u>Human Use</u> – Current Flag monument

<u>Riprap Bank</u> – very steep – vertical

Appears that landward portion is maintained public lawn;
Trees all along edge.
Silver Maple, many others

Residential area

Mudflats water ward

Shore line

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:	PM	Last High/Low Tide:	Low: 10:24 AM
Photos #: Attached photos from December 19, 2003 site visit			

Table 1 - General Information				
Site Name / Number: 4TMS				
Location Description: PASSAIC (left bank descending) Mudflat off Sloped concrete bulkhead				
Approx. Physical Dimensions of Site: 1500′ linear feet				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	Southern portion of site is commercial.
Industrial		
Residential	X	
Recreational		
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations: Shoreline: ½ trees, ½ lawn		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: _____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)			
Fine (Sand/Silt/Clay)	X		
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability			**Percent Bank Erosion**		**Percent Composition (0-100%)**			
					1	**2**	**3**	
Stable- bank stable; evidence of erosion or bank failure absent or minimal			< 5%		X			
Moderately Stable- infrequent small areas of erosion mostly healed			5 - 30%					
Moderately Unstable- areas of erosion present, unhealed			30 - 60%					
Unstable- eroded areas frequent along straight sections, obvious bank sloughing			60 - 100%					
Approx Slope:	2%	Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested (on edge)	60					
Scrub/Shrub						
Old Field						
Urban (describe: residential)	40					
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat	100					
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub			
Trees	Willows		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures		
Remove Fill / Debris		
Lower Grade		
Raise Grade		
Remove Invasive Species		
Replant Indigenous Species		
Flatten Shoreline		
Biostabilize (Shoreline)		
Eliminate Stresses		
Hydrology Alterations / Improvements		
Other Habitat Enhancements		
Human Use		
Other		
May be OK as is. Possible strip of Tidal Wetlands adjacent to wall		

Tables 11 and 12 will be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	

Additional Comments and Observations (use additional sheets if necessary):

Site 4TMS looking East

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Date:	10/21/04	Field Personnel:	WPS, RM, JR, LB, BG
Time:	11:15 AM	Last High/Low Tide:	Low: 10:24 AM
Photos # Attached			

Table 1 - General Information				
Site Name / Number: 6N and 2PRC				
Location Description: PASSAIC (left bank descending) Wallington Borough, (former?) Tuck Tape, parking lot, 2.8 acres				
Approx. Physical Dimensions of Site: 700′ × 200′ elliptical				
System Elements (check one):	Marine ( )	Estuarine ( )	Riverine (X)	Palustrine ( )

Table 2 - Adjacent Land Use/Surrounding Land Use		
	X*	**Comments**
Commercial	X	
Industrial	X	
Residential	X	
Recreational		
Community (school/church)		
Vacant		
Access (land or water)		
Pollution/Contamination		
Observations:		

**Throughout this form, check (X) all that apply (unless otherwise specified).*

Table 3 - Sources of Stress		
	X	**Comments**
Outfalls	X	Site is opposite former Tuck Tape Factory
Storm Drains		
Dumping / Filling		
Debris		
Industrial Facilities / Uses		
Other: __Paved Lot_____		
Other: _____		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 4 – Substrate			
Substrate Type	**Approx. Percent Composition (0-100%)**		
	1	**2**	**3**
Bedrock			
Boulder/Rip Rap			
Coarse (Cobble/Gravel)	5		
Fine (Sand/Silt/Clay)	95		
Organic			
Open Water (unknown)			

Table 5 - Hydrologic Features		
Classification	**X**	**Comments**
Tidal	X	
Subtidal	X	
Intertidal	X	
Lower Perennial		
Upper Perennial		
Intermittent		
Unknown		
Water Regime	**X**	**Comments**
Permanently Flooded	X	
Temporarily /Seasonally Flooded		
Intermittently Flooded (event dependant)	X	
Saturated		
Artificially Flooded		
Unknown		
Describe Hydrologic Features / Drainage Pathways:		

Table 6 - Bank Assessment (if applicable)								
Stability	**Percent Bank Erosion**	**Percent Composition (0-100%)**		
		1	**2**	**3**
Stable- bank stable; evidence of erosion or bank failure absent or minimal	< 5%	10		
Moderately Stable- infrequent small areas of erosion mostly healed	5 - 30%	90		
Moderately Unstable- areas of erosion present, unhealed	30 - 60%			
Unstable- eroded areas frequent along straight sections, obvious bank sloughing	60 - 100%			
Approx Slope:		Horizontal to 1 Vertical		Slope Dimensions:		ft Wide x		ft Long

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 7 - Vegetative Cover Components						
Vegetation Class	**Approx. % Cover**			**Dominant Species**		
UPLAND:	**1**	**2**	**3**	**1**	**2**	**3**
Forested						
Scrub/Shrub						
Old Field						
Urban (describe:__Asphalt_)	35			Aster	Mullen	
WETLAND:						
Forested Wetland						
Scrub/Shrub Wetland						
Herbaceous Wetland						
Mud Flat						
Open Water / Emergent						

Table 8 - Faunal Observations			
Avian	**Type**	**Approx #**	**Habitat Association**
Mammalian			
Fish			
Herptiles			
Invertebrates			

Table 9 - Floral Observations			
Algal	**Type**	**Approx Cover**	**Habitat Association**
Emergent			
Shrub	Poke weed		Fringing urban fields
Trees	Mulberry		Bank of River
Cover 10% of site	Maple		

LOWER PASSAIC RESTORATION PROJECT
POTENTIAL RESTORATION SITE FIELD DATA FORM

Table 10 – Potential Restoration Components		
	X	**Comments**
Remove Manmade Structures	X	
Remove Fill / Debris	X	
Lower Grade	X	
Raise Grade		
Remove Invasive Species		
Replant Indigenous Species	X	
Flatten Shoreline		
Biostabilize (Shoreline)	X	
Eliminate Stresses		
Hydrology Alterations / Improvements	X	lower grade to connect to river
Other Habitat Enhancements		
Human Use		
Other		
Restoration Concept Narrative: • Lower grade – bring in water • Possible candidate for upland forest – habitat type in short supply in project area.		

Tables 11 and 12 to be completed during future Restoration Workshops

Table 11 - Potential to Achieve Restoration Goals		
Restoration Goal	**X**	**Comments**
Improve Water Quality		
Improve Flora		
Improve Fauna		
Improve Sediment Quality		
Improve Human Use		

Table 12 – Overall Evaluation of Site Potential	
	X (check one only)
Rank I: Good / Great Site – Merits Further Study	
Rank II: Poor Site – Unlikely Candidate for Restoration	
Unable to Determine Site Potential	
Rationale for Site Ranking:	

Additional Comments and Observations (use additional sheets if necessary):

Urban meadow – possibly former parking lot

6N: Site Interior

Site 6N: site interior

6N: Upstream edge of site shoreline

6N: Interior of site

Attachment 2

N

24N

6

Kearny Marsh

25N

3

12TMS

5

18TMS

19TMS

20TMS

2

17TMS

35N

27N

21TMS

26N

7HP

4

16TMS

15TMS

13TMS

28N

14TMS

1

29N

22TMS

23TMS

Kearny Point/Marsh

10HP

0

Oak Island Yards Tidal Creek
and Wetlands Area
(See Figure B)

24TMS

0 1,000 2,000 4,000 Feet

Aerial photography shown is Digital color infrared (CIR) orthophotography of New Jersey in State Plane NAD83 Coordinates, U.S. Survey Feet.

Site 31N was not located during field activities - location shown on map is inaccurate.

US Army Corps of Engineers

MALCOLM PIRNIE

TAMS
AN EARTH TECH COMPANY

Lower Passaic River Restoration Study

Potential Restoration Sites

Figure A: Tile 1 of 5

- add_noaa_sites
- hre_sites
- studyarea
- tams_sites
- coalition_sites
- usace_sites
- noaa_sites
- Passaic Project Centerline

N

9
19N
2nd River Greenway
8
20N
22N
21N
11TMS
7
23N
7HM
24N
30N
6
Kea
25N
3
12TMS
5
18TMS
17TMS
19TMS
20TMS
2
35N
27N
21TMS
26N
7HP
4
16TMS
15TMS
13TMS
28N
14TMS
1
29
22
23TMS

0 1,000 2,000 4,000 Feet

Aerial photography shown is Digital color infrared (CIR) orthophotography of New Jersey in State Plane NAD83 Coordinates, U.S. Survey Feet.

Site 31N was not located during field activities - location shown on map is inaccurate.

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Lower Passaic River Restoration Study

Potential Restoration Sites

Figure A: Tile 2 of 5

- add_noaa_sites
- hre_sites
- studyarea
- tams_sites
- coalition_sites
- usace_sites
- noaa_sites
- Passaic Project Centerline

N

13N
14N
15N
16N
3PRC
6TMS
17N
Riverbank Parcel
7TMS
PowerLine ROW
8TMS
18N
9TMS
10TMS
19N
2nd River Greenway
20N
22N
21N
11TMS
23N
7HM
24N

12
11
10
9
8
7
6

0 1,000 2,000 4,000 Feet

Aerial photography shown is Digital color infrared (CIR) orthophotography of New Jersey in State Plane NAD83 Coordinates, U.S. Survey Feet.

Site 31N was not located during field activities - location shown on map is inaccurate.

US Army Corps of Engineers

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TAMS
AN EARTH TECH COMPANY

Lower Passaic River Restoration Study

Potential Restoration Sites

Figure A: Tile 3 of 5

- add_noaa_sites
- hre_sites
- studyarea
- tams_sites
- coalition_sites
- usace_sites
- noaa_sites
- Passaic Project Centerline

N

6N
4TMS
14
8N
7N
Waterfront Acces
11N
9N
10N
13
5TMS
12N
12
32N
13N
14N
33N
15N
11
16N
3PRC
34N
6TMS
17N
Riverbank Parcel
7TMS
10
PowerLine ROW
8TMS
18N
9TMS
10TMS
9

0 1,000 2,000 4,000 Feet

Aerial photography shown is Digital color infrared (CIR) orthophotography of New Jersey in State Plane NAD83 Coordinates, U.S. Survey Feet.

Site 31N was not located during field activities - location shown on map is inaccurate.

US Army Corps of Engineers

MALCOLM PIRNIE

TAMS
AN EARTH TECH COMPANY

Lower Passaic River Restoration Study

Potential Restoration Sites

Figure A: Tile 4 of 5

- add_noaa_sites
- hre_sites
- studyarea
- tams_sites
- coalition_sites
- usace_sites
- noaa_sites
- Passaic Project Centerline

N

31N
1N
3HP
6C
5N
2N
1PRC
4N
1TMS
5C
Island
2TMS
4C
16
3TMS
2C
3C
3N
Saddle River
6N
1C
4TMS
2PRC
15
14
8N
7N
Waterfront Acces
11N
9N
10N
13
5TMS
12N

0 1,000 2,000 4,000 Feet

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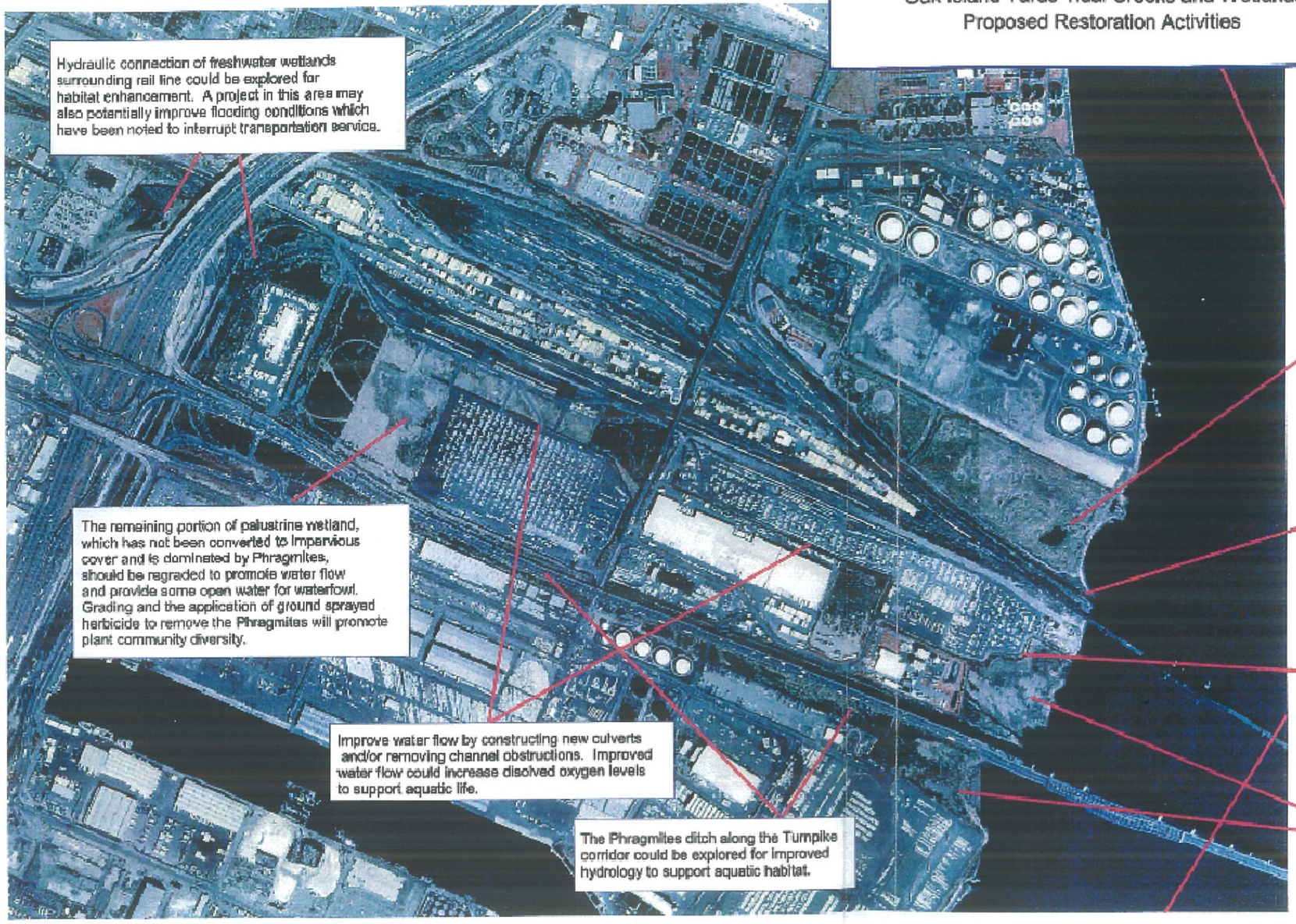
Oak Island Yards Tidal Creeks and Wetlands
Proposed Restoration Activities



Hydraulic connection of freshwater wetlands surrounding rail line could be explored for habitat enhancement. A project in this area may also potentially improve flooding conditions which have been noted to interrupt transportation service.

The remaining portion of palustrine wetland, which has not been converted to impervious cover and is dominated by Phragmites, should be regraded to promote water flow and provide some open water for waterfowl. Grading and the application of ground sprayed herbicide to remove the Phragmites will promote plant community diversity.

Improve water flow by constructing new culverts and/or removing channel obstructions. Improved water flow could increase disolved oxygen levels to support aquatic life.

The Phragmites ditch along the Turnpike corridor could be explored for improved hydrology to support aquatic habitat.

Establish tidal creek and pool network througout this vacant lot to enhance habitat for fisheries and wildlife. Property currently owned by Motiva Enterprises. May have currently been used as a tank farm and therefore contamination may be a concern for a project on this property. Property could be accessed through road to Police firearms training facility. Restoration activities would include grading to accomplish development of a tidal creek network. Restoration may also involve the use of ground spayed herbicide to remove the dominant and invasive Phragmites. Restoration could also involve the placement of soil material along the bayfront to create shallows to support Spartina marsh.

Open Tidal Gates

Open up channel through grading.

City owned properties which should be designated wetland conservation areas. The northern property could be monitored for Phragmites encroachment.

US Army Corps of Engineers

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Lower Passaic River
Remediation and Restoration Study
Oak Island Yards Tidal Creeks and Wetlands Opportunities
Figure B

Approximate Scale: 1 inch equals 1000 feet.

Source: U.S. Army Corps of Engineers. Restoration Options Report, City of Newark Section 206 Aquatic Ecosystem Restoration Project. October 2000.