

**Final Environmental Assessment  
Fire Station Facility Construction  
Engine Company No. 7**

**City of Paterson, Passaic County, NJ**

**Assistance to Firefighters Station Construction Grant Program  
American Recovery and Reinvestment Act  
EMW-2009-FC-01866**

*June 2012*



**FEMA**

**U.S. Department of Homeland Security  
Federal Emergency Management Agency  
Region II, 26 Federal Plaza, NY, NY 10278**

# FINAL ENVIRONMENTAL ASSESSMENT REPORT

*for*

## CITY OF PATERSON PROPOSED ENGINE COMPANY NO. 7

290-296 McBride Avenue  
Block 5004, Lot 14 and Portion of Lot 2

City of Paterson  
Passaic County, New Jersey

Our File No. 10-181



FEMA Region II  
26 Federal Plaza, Suite 1337  
New York, NY 10278-0002

Prepared By:

Approved for Release By:

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Frank J. Rossi, LSRP  
Project Manager

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Stephen T. Boswell, Ph.D., P.E., LSRP  
President, CEO



**BOSWELL ENGINEERING**  
**SOUTH HACKENSACK, NEW JERSEY**  
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JUNE 2012

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# ***APPENDICES***

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## ***LIST OF ACRONYMS***

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ACM	Asbestos Containing Material
AOC	Area of Concern
APE	Area of Potential Effects
BMP	Best Management Practices
CAA	Clean Air Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CWA	Clean Water Act
dB	Decibels
dbh	diameter at breast height
DPW	Department of Public Works
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EO	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Findings of No Significant Impact
GIS	Geographic Information Systems
GPR	Ground Penetrating Radar
HEPSCD	Hudson Essex Passaic Soil Conservation District
IGWSSL	NJDEP's Impact to Groundwater Soil Screening Level
RG	Richard Grubb & Associates, Inc.
L <sub>dn</sub>	Day-night average sound level
LBP	Lead Based Paint
NEPA	National Environmental Policy Act
NFA	No Further Action
NHPA	National Historic Preservation
NJDEP	New Jersey Department of Environmental Protection
NJ SHPO	New Jersey State Historic Preservation Office
NPL	National Priority List
NRCS	Natural Resource Conservation Service
NRHP	National Registrar of Historic Places
NTS	Not To Scale
OPRA	Open Public Records Act
OSHA	Occupational Safety and Health Act
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
PAH	Polycyclic Aromatic Hydrocarbons
PI No.	NJDEP Program Interest No.
PVSC	Passaic Valley Sewerage Commissioners
PVWC	Passaic Valley Water Commission
PSE&G	Public Service Electric and Gas
RCRA	Resource Conservation and Recovery Act
RDCSRS	NJDEP's Residential Direct Contact Soil Remediation Standards
SIR	Site Investigation Report
SSURGO	Soil Survey Geographic
USFWS	U.S. Fish & Wildlife Service

## ***1.0 INTRODUCTION***

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The City of Paterson Fire Department has applied for federal funding from the Department of Homeland Security-Federal Emergency Management Agency's (DHS-FEMA) American Recovery and Reinvestment Act (ARRA) Assistance to Firefighters (AFG) Station Construction Grant Program (SCG) to construct a new firehouse at 290-296 McBride Avenue in Paterson, Passaic County, NJ. The proposed new facility would house four (4) apparatus bays that will provide housing for the fire engine and possible ladder truck or heavy rescue vehicle. The new facility would be located at a site with emergency river access to the Passaic River upstream of Great Falls. The proposed project would involve movement of the fire department's operation from its existing facility at 95-97 Grand Street to the new facility. Response times would be maintained as the new facility site is approximately ¼ mile away from the existing firehouse. Engine Company No. 7 is responsible for servicing the 9-square mile City. The firehouse works in conjunction with the City's Fire Headquarters on Madison Avenue, Lakeview Firehouse, Northside Firehouse, Southside Firehouse, and Hillcrest Firehouse. The Paterson Fire Department Engine Company No. 7 provides important support to several target hazard sites in the area such as:

- Interstate Route 80;
- NJ State Route 19;
- The Passaic River;
- High-Density Urban Residential Neighborhood;
- Federal Building;
- County Jail; and,
- Courthouse Complex.

The operations of Engine Company 7 are vital to public health and safety.

The Department of Homeland Security's AFG SCG Program provides federal financial assistance directly to fire departments on a competitive basis in accordance with 44 CFR Part 152. The purpose of the ARRA SCG program is to jumpstart the U.S. economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges nationally. Specifically, the purpose of this grant program is to focus on these goals, and the goals of the AFG program, (i.e. - assisting fire departments in improving their basic response capability and capacity, and improving firefighter safety). Public Law 111-5 (The American Recovery and Reinvestment Act) provides funding for this program. The goal of the grants is to build new or modify existing fire stations in order for departments to enhance response capabilities and protect the community from fire and fire-related hazards. The proposed project is referenced as grant application EMW-2009-FC-01866.

FEMA is required as a federal agency to evaluate the potential environmental impacts of its proposed funding action, and alternatives to the proposed action, in order to make an informed decision in defining a proposed project for implementation. FEMA must consider and incorporate, to the extent practicable, measures to avoid, minimize or mitigate adverse impacts to the human environment. The environmental analysis is conducted in compliance with the National Environmental Policy Act (NEPA), and its implementing regulations at 40 CFR Parts 1500-1508 and FEMA's regulations at 44 CFR Part 10. FEMA evaluates financial assistance projects prior to grant approval.

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In accordance with 44 Code of Federal Regulations (CFR) for FEMA, Subpart B, Agency Implementing Procedures, Part 10.9, a Programmatic Environmental Assessment (PEA) for Grant Programs Directorate Projects was prepared and a Finding of No Significant Impact (FONSI) was issued in July 2010, pursuant to Section 102 of the NEPA of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500-1508). This Tiered Site-Specific Environmental Assessment (SEA) is being prepared in accordance with the July 2010 PEA. The focus of this Tiered SEA is on those areas of concern requiring additional discussion or analysis that are beyond the scope of the PEA.

This Environmental Assessment serves as documentation of FEMA's analysis of the potential environmental impacts of the proposed fire station facility construction project, including analysis of project alternatives, and identification of impact minimization measures. The disposition and resource value of the existing fire station facility is also addressed in this document due to the proposed movement of operations to a new facility. The document serves as written communication of the environmental evaluation for public and interested party comment. Public involvement is a component of NEPA to inform an agency's determination of whether to prepare an Environmental Impact Statement (EIS) or issue a FONSI.

## **2.0 PURPOSE AND NEED**

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The City of Paterson Fire Department has applied for financial assistance for the construction of a new fire station within city limits. The purpose of the proposed project would be to enhance public fire safety operations for the city and to improve the facilities for the city's firefighters health and well-being. Additionally a facility is needed with emergency river access to the Passaic River upstream of the Great Falls.

The objective of the ARRA is to stimulate the American economy by funding multiple projects throughout the nation. The purpose of the AFG SCG is to meet the objective of ARRA by providing Federal assistance for the construction of fire stations across the country.

The need for a new fire station is more specifically described as follows. The existing fire station on Grand Street is undersized. The building has only a single-bay garage. The building does not have adequate space available to construct additional bays, nor a separate female bathroom and shower facility. A January 2006 Inspection Report by the NJ Division of Fire Safety cited that the existing firehouse had structural deficiencies, safety deficiencies, health issues, operational issues, and did not conform for female firefighters.

The 2006 Inspection Report found steel "I" beams supporting the apparatus bay's concrete floor heavily corroded at their ends where they are supported by the concrete basement walls. The structural integrity of the beams is a concern due to the weight of the fire engine (35,000 lbs.). The Report recommended having a structural engineer inspect the garage floor to determine its stability. Also, the basement below the apparatus bay is windowless and must be equipped with either a fire suppression system or a fire detection system pursuant to the Uniform Fire Code.

Several safety deficiencies were also reported, including an absence of an operational automatic fire alarm system which incorporates smoke and carbon monoxide detectors in living areas as well as an automatic fire suppression system in the kitchen pursuant to the New Jersey Uniform Fire Code.

The building was also found to have an insufficient electrical system lacking an adequate number of electrical outlets, thus requiring the use of several extension cords and multiple outlet adaptors. Also, a steel spiral staircase, providing the only access to the second floor, contained broken steps and support members which were temporarily repaired by the firemen, however, the interim repairs do not ensure the structural stability. The building also lacks a suitable staircase for escape during an emergency.

Other safety hazards at the existing fire house include diesel fumes generated from the fire engine in the apparatus bay which permeate into the adjacent kitchen and living quarters above the bay. Diesel fumes contain carbon monoxide as well as other known carcinogenic compounds. The facility's renovation would require installing a new ventilation or diesel exhaust collection system to safely remove the hazardous fumes.

In addition to the above, the existing fire station lacks both the space and facilities to house female firefighters. The living spaces are also inadequately heated due to outdated and broken radiators. Lastly, the building's lighting is poor and must be upgraded to eliminate slip, trip and fall hazards.

### ***3.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES CONSIDERED***

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On behalf of the Paterson Fire Department, Boswell investigated and evaluated all reasonable alternatives to the proposed project pursuant to NEPA requirements. The proposed action and two (2) alternatives discussed in this report include:

- **Alternative 1:** No Action Alternative;
- **Alternative 2:** Renovate/Reconstruct the existing Grand Street Firehouse; and,
- **Alternative 3:** Construct a new firehouse on McBride Avenue.

#### **3.1 Alternative 1 - No Action Alternative**

Under the No Action Alternative the Paterson Fire Department would continue to operate out of the existing Engine Company No. 7 firehouse at 95-97 Grand Street in the same manner as before. The City of Paterson would take no action to improve the existing, deteriorating 100-year old facility located on less than 0.2-acres. As previously discussed in Section 2, the building is undersized for current fire equipment and is in relatively poor condition. Moreover, the structure has been cited for numerous code violations in the past (structural, electrical and even fire related). Leaving these violations uncorrected puts the health and safety of the firefighters at risk. The No Action Alternative is unacceptable as it does not serve the City's residents or their Fire Department. Further issues associated with the existing firehouse are discussed below under Alternative 2.

#### **3.2 Alternative 2 – Renovate/Reconstruct the Existing Grand Street Firehouse**

Under the second alternative, the existing facility at 95-97 Grand Street would be renovated and/or reconstructed. As shown in *Appendix G*, the existing Grand Street Fire Station is located in a heavily developed urban area with the building footprint occupying nearly half of the small 0.115-acre property. Given the property's size and urban location there is no room to enlarge the existing facility to include a second apparatus bay or living quarters. Moreover, the current bay is insufficiently sized for modern fire engines required to service the area, essentially rendering the building functionally obsolete. The facility also lacks a separate women's bathroom, shower and dormitory.

If operations were to continue at the existing facility, it would be necessary to hire a structural engineer and determine if the floor assembly below the apparatus bay would require renovation or replacement. Other concerns about the building include the electrical system, lighting, heating/roof and American with Disabilities Act (ADA) compliance. Also the absence of fire alarms and automatic sprinklers would need to be addressed and corrected to insure the safety of the firefighters working out of Engine Company No. 7. Additionally, the renovation costs would likely be high due to the historic nature of the existing 100-year old building.

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### **3.3 Alternative 3 - Construct a New Firehouse on McBride Avenue**

The third alternative, which is the Proposed Action, is to build a larger modern facility at 290-296 McBride Avenue as shown in (*Appendix A*). Under this alternative, the Paterson Fire Department plans to move Engine Company No. 7 to the new facility less than ¼-mile away and convert the existing Grand Street Firehouse into a museum.

The proposed station will be located on a much larger 1.8-acre property and have approximately 16,000 square feet of floor space including 2-floors and an attic. The building will be equipped with four (4) apparatus bays complete with a diesel exhaust capturing system, fire suppression system and floor drains connected to an oil water separator (OWS) for washing the vehicles. The garage bay doors will be set back 72' from the curb on McBride Avenue to allow for easy entrance/exit of emergency vehicles.

The proposed facility will also include a bituminous pavement parking lot behind the building to supply parking for employees and visitors. An underground storm water retention basin will be constructed beneath the parking lot to provide for storm water quality and quantity in accordance with NJDEP regulations. The rear of the facility will also provide the Fire Department with emergency access to the Passaic River upstream of the Great Falls.

The proposed firehouse will be constructed in compliance with the current International and State Building Code, National and State Electric Code, and NJ Uniform Fire Code. The new facility will contain an automatic fire suppression system and a supervised smoke and carbon monoxide detector alarm system on all floors and living spaces. The living area will contain both male and female bathroom shower facilities as well as equipment locker rooms. The firehouse will also contain several multi-purpose meeting rooms and offices. Floor and grading plans for the proposed New Engine Company No. 7 firehouse are included in *Appendix I*.

### **3.4 Alternatives Screened but Eliminated from Further Evaluation**

This EA has thoroughly investigated the three (3) alternatives including: continued operations at the existing Grand Street firehouse, repairs and modifications to the Grand Street Firehouse, and construction of a new four (4) bay firehouse on McBride Avenue.

The Paterson Fire Department conducted a survey of the Pennington Park Area located north of Interstate 80 and west of New Jersey Highway 19 and selected the proposed site at 290-296 McBride Avenue as the most desirable location. This site was selected because the location would improve response times, provide an area large enough to build a new firehouse with a sufficient sized parking lot, has access to the Passaic River north of the Great Falls (recently declared a National Park) providing the required launch pad for water rescues. No other brownfields or underutilized properties of sufficient size were located inside of the densely developed Pennington Park Area of Paterson. The proposed action will benefit all residents and businesses of the Pennington Park Area of Paterson causing an improvement in social and economic factors. Therefore, FEMA and the City of Paterson Fire Department recommend the proposed action of constructing a new facility at 290-295 McBride Avenue.

## **4.0 SITE SELECTION**

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### **4.1 Project Location**

The proposed project is located in the western portion of the City of Paterson, in southern Passaic County, New Jersey. Paterson, the third largest city in New Jersey, is an urban community encompassing an area of 8.69-square miles with a population of 149,222 residents.

This EA report addresses the existing Engine Company No. 7 firehouse at 95-97 Grand Street and the proposed site of the new firehouse located at 290-296 McBride Avenue. The proposed and current sites are depicted on the City of Paterson Tax Map included in *Appendix B*. Photographs of the proposed site and current firehouse are provided in *Appendix C*.

#### Current Site:

According to the City Tax Collector's Office, the existing site at Block 4806, Lot 16 is a rectangular shaped parcel encompassing approximately 0.112-acres, with 50.06' of frontage along Grand Street and 99.11' of frontage along Quinn Street. The City reports the property's usage as a firehouse and is zoned as class 15C - Public Property.

#### Proposed Site:

According to the City Tax Collector's Office, Lot 14 is a rectangular shaped parcel encompassing approximately 0.115-acres, with 50' of frontage along McBride Avenue. The City reports the property's usage as vacant land owned by the City of Paterson.

Lot 2, in its entirety, is an irregularly shaped parcel encompassing 27-acres, with approximately 1,500' of frontage along McBride Avenue and approximately 2,800' of frontage along the Passaic River. Lot 2 is zoned as class 15C - Public Property. The City reports the property's usage as a park and lists the owner as the City of Paterson (Parks Department).

The proposed site will include Lot 14 in its entirety and an approximately 1.7-acre portion of Lot 2. The site will become an irregularly shaped parcel encompassing a total of approximately 1.8-acres with 160' of frontage along McBride Avenue and approximately 220' of frontage along the Passaic River.

### **4.2 Current Use of Properties**

#### Current Site

As previous discussed the existing site is currently Engine Company No. 7's firehouse.

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### Proposed Site

The proposed site, Lot 14 is currently undeveloped while Lot 2 is public property, a portion of the City of Paterson Parks Department's Pennington Park. Pennington Park is a part of the New Jersey Department of Environmental Protection's (NJDEP) Green Acres Program. Since the park is funded by the Green Acres program, a Diversion of Use must occur prior to disturbing the 1.7-portion of land for construction. This Diversion of Use will be discussed later in this report.

## **4.3 Past Uses of Properties**

### Current Site

The City of Paterson has used the site as a firehouse since it was built in the early 1900s.

### Proposed Site

Based on the historic records provided by Environmental Data Resources Inc. (EDR) and NJ Parcel Map Online, it appears that Lot 14, 298 and 300 McBride Avenue was historically used as a single-family residence. The property is shown containing a residential building as early as 1915. In 2006 the City of Paterson purchased the property and demolished the structure eventually planning to construct the proposed firehouse discussed herein.

Based on historic records provide by EDR and NJ Parcel Map Online, The portion of Lot 2 which makes up the remaining section of the site at 290-296 McBride Avenue has been undeveloped park land since at least 1915.

A summary of the ownership of the proposed site by address is as follows:

**300 McBride Avenue, Block 5004, Lot 14**

<b>Year</b>	<b>Property Owner</b>	<b>Source</b>
2006	City of Paterson	NJ Parcel Map Online
2003	Eleanor C. Mullen Eleanor C. Mullen	City Publishing
1958	Richard V. Stullen Eugene A. Wild	The Price and Lee Company
1952	James F. Collins Eugene A. Wild	The Price and Lee Company
1947	James F. Collins Eugene A. Wild	The Price and Lee Company
1942	James F. Collins Eugene A. Wild	The Price and Lee Company
1937	James McDonald Eugene A. Wild	The Price and Lee Company
1932	Joseph Huber Eugene A. Wild	The Price and Lee Company
1927	Joseph Huber Eugene A. Wild	The Price and Lee Company
1922	David E. Kent Peter Doughaen Eugene A. Wild	The Price and Lee Company

**298 McBride Avenue, Block 5004, Lot 14**

<b>Year</b>	<b>Property Owner</b>	<b>Source</b>
1958	Carmine AR Polizsno	The Price and Lee Company
1942	Carmine Pollaso	The Price and Lee Company

**Pennington Park, Block 5004, Lot 2**

<b>Year</b>	<b>Property Owner</b>	<b>Source</b>
1989	The City of Paterson – Parks Department	NJ Parcel Map Online

**4.4 Aerial Photograph Review**

Boswell obtained nine (9) historic aerial photographs (*Appendix D*), illustrating the site and surrounding area. The photographs are dated 1933, 1954, 1966, 1970, 1976, 1984, 1991, 1995 and 2006.

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- 1933** The resolution on the 1933 aerial photograph is poor. However, the photograph shows the majority of property as vacant land. Due to tree cover it is difficult to verify the location of the residence at 300 McBride Avenue.
- 1954** The resolution on the 1954 aerial photograph is much clearer and depicts the majority of the subject property as undeveloped. Trees obstruct the view along McBride Avenue, however, a driveway leading to the residence at 300 McBride Avenue is visible.
- 1966** The 1966 photograph appears to show the same features as the 1954 aerial photograph.
- 1970** The 1970 aerial photograph shows the same features as the 1966 aerial photograph.
- 1976** The resolution of the 1976 aerial photograph is poorer than the earlier photographs and therefore it is difficult to determine any changes from the previous photographs.
- 1984** The resolution of the 1984 aerial photograph is also poor, making it difficult to determine any changes from the previous photographs.
- 1991** The 1991 aerial photograph shows a residential building at 300 McBride Avenue and the remainder of the site is undeveloped park land.
- 1995** The 1995 aerial photograph shows the same features on the site as the 1991 aerial photograph.
- 2006** The 2006 aerial photograph shows the same features on the site as the 1995 aerial photograph. The building was demolished shortly after the photograph was taken.

#### **4.5 Historic Topographical Maps**

Boswell obtained eight (8) historical topographic maps (*Appendix E*) illustrating the site and surrounding area. The maps are dated 1900, 1903, 1905, 1944, 1955, 1970, 1981, and 1995. Each of the historical topographic maps depicts the proposed site located on park property within an urbanized area. No structures are shown on-site except in the 1903 topographic map where one (1) building is seen in the vicinity of 298-300 McBride Avenue.

#### **4.6 Sanborn Fire Insurance Maps**

Boswell reviewed seven (7) Sanborn Fire Insurance Maps, dated 1915, 1950, 1951, 1975, 1980, 1984, and 1994 supplied for the proposed site at 290-296 McBride Avenue (*Appendix F*). The Sanborn Maps are useful in providing information regarding the past use of the site and the surrounding vicinity and environmental conditions in the area.

A review of the Sanborn Fire Insurance Maps indicated the following:

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- 1915** A residential building is shown at 300 McBride Avenue on a portion of current Block 5004, Lot 14. The subject property is also part of Lot 2, a larger undeveloped parcel (Pennington Park).
- 1950** The 1950 Sanborn Map depicts the same building located at 300 McBride Avenue; the remaining portion of the property at Lot 2 remains undeveloped.
- 1951** The 1951 Sanborn Map depicts the property in the same configuration as the 1950 Sanborn.
- 1975** The 1975 Sanborn Map depicts the property in the same configuration as the 1950 and 1951 Sanborn maps.
- 1980** The 1980 Sanborn Map depicts the property in the same configuration as the 1950, 1951, and 1975 Sanborn maps.
- 1984** The 1980 Sanborn Map depicts the property in the same configuration as the 1950, 1951, 1975 and 1980 Sanborn maps.
- 1995** The 1995 Sanborn Map depicts the property in the same configuration as the 1950, 1951, 1975, 1980 and 1984 Sanborn maps.

#### **4.7 Summary of Site Reconnaissance**

Boswell performed an inspection of the proposed site to identify any present or potential environmental concerns related to on-site activities. Items noted included the property use and potential areas of concern such as stressed vegetation or stained soil. The inspection was limited to visual observations. The site inspection photographs can be found in *Appendix C*.

The existing site is a 100-year old firehouse with the potential for lead based paint (LBP) and asbestos containing material (ACM). Boswell did not sample any materials while onsite however given the building's age LBP/ACM are likely present. Additionally, the building's heating system is fueled by an underground storage tank (UST) found on the property.

Boswell did not visually observe any potential environmental concerns at the proposed location of the new firehouse. The property is deciduous tree wooded area and a grass field. Boswell did however observe a slight subsidence where a former residence once stood on the property.

#### **4.8 Local and State Records Requests**

The following are the results of Boswell's Open Public Records Act (OPRA) search with the various State, County and local agencies. Copies of all record requests and responses obtained by local and State governments are included in *Appendix O*.

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### **4.8.1 City of Paterson**

Boswell submitted a Request for Public Records from the City of Paterson for any environmental concerns including UST records, hazardous material spills, and/or fire responses for both the proposed and existing sites. Ms. Jane E. Williams, the City Clerk, reported that she was unable to find any records of environmental concerns from the files for either site.

### **4.8.2 Passaic County Health Department**

Boswell submitted a Government Records Request to the County of Passaic Department of Health for any records pertaining to environmental response actions or environmental violations at the existing and proposed sites. Ms. Renee B. Alessio, the Right to Know Coordinator found two (2) environmental incident report forms for the proposed site at 290-296 McBride Avenue, specifically:

- On December 16, 1999 two (2) empty 5-gallon pails formerly containing ethanol were found in the Passaic River. The pails were reported by the NJDEP and removed by the Paterson Department of Public Works (DPW).
- On January 12, 1999 NJ Water Watch reported elevated amounts of cyanide in a sample of water from the Passaic River. The NJDEP issued the incident case number 99-01-12-1151-44 and issued a no further action (NFA). Since these incidents occurred over 10-years ago, the risk of current contamination from these events is low.

The County did not find any records of environmental concern for the existing firehouse at 95-97 Grand Street.

### **4.8.3 NJDEP Records Request**

Pursuant to the New Jersey Open Public Records Act (N.J.S.A. 47:1A-1 et. seq.) Boswell requested access to the NJDEP records for both properties. According to the NJDEP, the existing firehouse at 95-97 Grand Street utilized one (1) 1,000-gallon No. 2 home heating oil UST and one (1) 550-gallon No. 2-D medium diesel fuel UST. The 550-gallon UST was removed on January 10, 2000 (NJDEP UST Closure Number N99-0426).

## ***5.0 ENVIRONMENTAL SETTING AND POTENTIAL IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES CONSIDERED***

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Boswell has investigated all affected environmental and potential impacts of the proposed project based on the requirements set forth by FEMA.

### **5.1 Geology, Seismicity, and Soils**

The following section details the existing/proposed sites' geology, seismicity, and soil:

#### **Current Site Location**

The current Engine Company No. 7 firehouse, located at 95-97 Grand Street (Block 4806, Lot 16) encompasses 0.112-acres. The property's lies approximately 150 feet above mean sea level (756528' northing and 579405' easting) as shown on the Paterson Quadrangle USGS topographic map included in *Appendix A*.

The current site is classified by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database as Holyoke Rock Outcrop Complex with 3 to 15 percent slopes. This complex consists of basalt bedrock outcrops and Holyoke soils. According to the Passaic County Soil Survey data, Holyoke rock outcrops make up 10 to 30 percent of each mapped area. Most areas of this complex have been left in almost natural condition. As much as 60 percent of mapped areas have been disturbed by man. Bedrock depth is shallow in most areas, limiting potential use of this area and requires blasting for excavation. Shallow soil depth severely limits potential of this complex to be used for plant production. The complex has been assigned capability unit VIIIs-22 and woodland group 4x. A GIS generated SSURGO soil map and USDA Natural Resource Conservation Service Soil Report depicting the current site is included in *Appendix K*.

The geologic unit under the current site is Orange Mountain Basalt as shown in *Appendix L*. The Orange Mountain Basalt is described by P.E. Olsen (Olsen,1980) as a dark-greenish-gray to greenish-black basalt composed mostly of calcitic plagioclase (typically An65) and clinopyroxene (augite and pigeonite) deposited in the lower Jurassic Period; its crystals are generally less than 1 mm (0.04") long. The formation consists of three (3) major flows which are separated in places by a weathered zone or by a thin, up to 3 meters- (10') thick bed of red siltstone (not shown on map) or volcanoclastic rock. Lowest flow is generally massive and has widely spaced curvilinear joints; columnar joints in lowest flow become more common toward the northeast. Middle flow is massive or has columnar jointing. Lower part of the uppermost flow has pillow structures; upper part has pahoehoe flow structures. Tops and bottoms of flow layers are vesicular. Maximum thickness is about 182 meters (597'). High magnitude earthquakes and other seismic events are rare in New Jersey since it is located on a passive margin.

#### **Proposed Site Location**

The proposed site encompasses approximately 1.8-acres and is located at 290-296 McBride Avenue (Block 5004, Lot 14) and a portion of Lot 2. The property lies approximately 125 feet above mean

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sea level and inclines gently toward its northwest corner before sloping downward toward the Passaic River. The southern portion of the site along McBride Avenue is generally a grass lawn/field with few trees or shrubs. The rear of the property to the north is more densely wooded with deciduous trees. The nearest waterway is the Passaic River, adjacent to the site's northern boundary. The property's New Jersey State Plane Coordinates (feet) are 756528' northing and 579405' easting as shown by the Paterson Quadrangle USGS topographic map in *Appendix A*.

The USDA NRCS rates the soils on site as **not** prime farmland based on the soil classification of Urban Land-Riverhead complex with 3 to 8 percent slopes. This area consists of where man has altered the soil, areas of Riverhead soils, and small inclusions of Otisville and Pompton soils. Urban land makes up 40 to 80 percent of each mapped area, and Riverhead soils make up 20 to 60 percent. Slopes are predominantly 3 to 8 percent. Extensive areas lie under paving or structures. The soils are stratified and sorted, cobbly or gravelly, coarse textured glacial outwash materials. Depth of bedrock in most areas is more than 10-feet. The site is not assigned to a capability unit or woodland group. The USDA NRCS soil map and GIS generated SSURGO soil map for the proposed site location are included in *Appendix K*.

Johnson Soils Company completed six (6) test pits and three (3) soil borings throughout the proposed site. Groundwater was typically encountered in the soil borings at a depth of approximately 15'. Soil borings encountered fill material from a depth of 0'-4' below ground surface (bgs). The depth to bedrock varies significantly throughout the proposed site increasing from the west side where there is a small bedrock outcrop down to a depth of >20' below ground surface (bgs) in the east. Test pit TP-6 recorded the shallowest depth to bedrock within the building footprint at a depth of 9' bgs. The geologic unit under the existing site is also the Orange Mountain Basalt as shown in *Appendix L*.

#### **Alternative 1 – No Action**

Under Alternative 1 there would be no impact to the soil and geology at either of the sites since no renovation or construction will occur.

#### **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Presumably bedrock in the area of the existing site would not be encountered during renovations to the Engine Company No. 7 firehouse on Grand Street. Renovation of the facility may create short term impact to the soils which would be minimized using Best Management Practices (BMP) such as silt fences, straw sediment bags, gravel bags, etc. The planting of vegetative cover shortly after the project's completion will also aid in minimizing soil erosion. Any soil excavated and removed from the site would be disposed of in accordance with all Federal, State and local regulations.

#### **Alternative 3 – Construct a New Firehouse on McBride Avenue**

The depth to bedrock directly below the proposed building footprint is  $\geq 9'$  bgs, and may be encountered during the construction of the New Engine Company No. 7 firehouse. If necessary,

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excavation of the bedrock would require blasting which would be conducted during normal business hours to avoid disturbance to nearby residences. Construction would create short term impact to the soils which will be minimized using BMPs for soil erosion prevention such as silt fences, straw sediment bags, gravel bags, etc. The planting of vegetative cover shortly after completion of the project will also aid in minimizing soil erosion. Soil excavated and removed from the site would be disposed in accordance with all Federal, State and local regulations.

## **5.2 Water Resources and Floodplain Management**

### **5.2.1 Water Resources and Water Quality**

Topography on the USGS topographic map found in *Appendix A* shows the property sloping in a general northeasterly direction with a small hill in the property's northwest corner.

The NJDEP NJ-GeoWeb Groundwater Recharge Area Map (*Appendix R*) shows that the north half of the site at McBride Avenue is located within 11-15 inches/year groundwater recharge area. The existing facility on Grand Street is within the 8-10 inches/year groundwater recharge area.

#### **Alternative 1 – No Action**

The No Action alternative would not change the existing impacts to water resources and water quality. Stormwater and other run-off from the existing Grand Street Firehouse would continue to enter the catch basins along Grand Street.

#### **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Any soil disturbances during renovations will use BMPs to minimize short term impacts to the site's stormwater drainage. Also, if Alternative 2 is chosen, upgrades to the stormwater collection system must be assessed to determine if drainage (e.g. such as vehicle wash water) from the apparatus bay and other impervious areas has the potential to negatively impact the Passaic River.

If drains are not installed stormwater runoff would continue to discharge into the Grand Street catch basins. During the construction/renovation, any disturbances to the soil would require a Stormwater Pollution Prevention Plan (SP3) which utilizes Better Management Practices (BMP) including straw bales, silt screens, sediment bags, etc. to control overland flow of soils and sediments.

#### **Alternative 3 – Construct a New Firehouse on McBride Avenue**

The Proposed Action alternative will not directly impact the surface water or groundwater quality, however, the groundwater infiltration rate will be reduced due to the increase in impervious surfaces (i.e. firehouse and parking lot). During construction of the firehouse along McBride Avenue there will be short term impacts to the groundwater and surface water (Passaic River) water quality. These impacts will be limited through a SP3 that utilizes BMPs to minimize overland flow

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and runoff of sediment and soil to nearby watercourses. During the new firehouse's construction it will also be necessary to comply with the NJDEP's Stormwater Management Rules (N.J.A.C. 7.8) to address stormwater runoff quality and quantity.

Sediment loading can be achieved using BMPs such as silt fences, straw, sediment bags, and gravel bags to reduce sediment discharge into the river and stormwater catch basins. The completed facility will have stormwater drains on impervious surfaces such as the asphalt and concrete paved areas that will discharge into an underground retention basin promoting stormwater quality.

### **5.2.2 Wetlands**

The National Wetlands Mitigation Action Plan was created by the United States Army Corps of Engineers (US ACOE) and the United States Environmental Protection Agency (US EPA) to achieve their goal of no net loss of wetlands and reduce the direct or indirect destruction or modification of wetlands. Also under section 404 of the Clean Water Act (CWA) the US ACOE and the US EPA issued new regulations regarding the impacts to the waters of the United States including discharge of dredged or filled material.

FEMA guidance on Executive Order 11990, for the protection of wetlands from new construction requires determining whether a proposed project will impact wetlands. Consistent with FEMA requirements, a scaled map is prepared in *Appendix P* depicting the boundaries of the proposed site, the Passaic River, and NJDEP's statewide wetlands dataset which was cross referenced with the US National Fish and Wildlife Service National Wetlands Inventory Map of the area. According to the map, the closest water body is the Passaic River flowing west to east adjacent to the northern property boundary. The Slippery Rock Brook runs through Pennington Park, flowing to the north and discharging into the Passaic River approximately 450' west of the proposed property boundary. Approximately 450' north of the proposed site boundary, the Molly Ann Brook flows south and empties into the Passaic River.

According to the NJDEP's 2004 wetland data, there are no wetlands on or immediately adjacent to the proposed site. The nearest wetlands, aside from the riverine wetland of the Passaic River, are Deciduous Wooded Wetlands located approximately 700' north of the property along the Molly Ann Brook. Deciduous Scrub/Shrub Wetlands are also found further north along the Molly Ann Brook approximately 1,300' northwest of the proposed site. Lastly, Managed Wetlands (Modified) are located inside Pennington Park approximately 1,000' west of the proposed firehouse.

#### **Alternative 1 – No Action**

Under Alternative 1, there would be no changes or impacts on water bodies or wetlands since the existing facilities will remain undisturbed. Currently, drainage from the apparatus bay would drain out of the building onto the road and into catch basins along Grand Street, eventually emptying into the Passaic River.

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**Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

The renovation of the existing facility on Grand Street will have no impacts on wetlands.

**Alternative 3 – Construct a New Firehouse on McBride Avenue**

The proposed new firehouse will have no significant adverse impacts on wetlands. Site soil and sedimentation erosion control plans will be implemented during construction to minimize potential disturbance to the adjacent Passaic River.

### **5.2.3 Floodplains**

Executive Order 11988 – Floodplain Management requires Federal agencies to avoid adverse impacts associated with the development of floodplains wherever there is a practicable alternative. Agencies shall try to reduce the negative impacts of flooding and to restore and preserve the values served by floodplains. Flood Insurance Rate Maps (FIRM) are created by FEMA to identify flood hazard areas that are associated with risk and insurance requirements as part of the National Flood Insurance Program. The FIRM of the proposed site (*Appendix H*) depicts that it is located partially within the 500-year floodplain. The building footprint is partially inside of the 500-year floodplain based on the presence of a Zone X location marked near the building footprint. The New Jersey flood hazard area elevation on site is 127.0' according to the NJDEP 'Delineation of Floodway and Flood Hazard Area plan for the Passaic River station 1326+00 to station 1369+95. The existing Grand Street Firehouse is well outside of both the 100 and 500-year floodplains.

**Alternative 1 – No Action**

The no action alternative would not adversely affect or be adversely affected by floodplains.

**Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Alternative 2 would not adversely affect or be adversely affected by floodplains.

**Alternative 3 – Construct a New Firehouse on McBride Avenue**

Construction of the new firehouse will place a portion of the proposed building footprint and parking lot within the 500-Year floodplain. The facility is a critical facility. Critical facilities located within the 500-Year or 100-Year floodplain are subject to EO 11988 Eight Step Decision-making Process per 44CFR Part9. The Eight Step Process summary is included in *Appendix H*. The proposed site was determined to be the only practicable site for new facility construction since it is located adjacent to the Passaic River, is the only undeveloped property in the densely developed Pennington Park Area of sufficient size for the required firehouse, and will be able to provide for the safety of the fire department employees and residents in the service area. Site adjacency to the river was needed for the intended future construction of an emergency boat ramp access for river rescues. The public good of that this new facility will provide outweighs the

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federal investment risk in floodplain occupancy. In order to minimize future flood damage risk to the new facility, the facility will be elevated at or above the Base Flood Elevation (BFE) of the 500-Year floodplain. It is anticipated that the facility will be at elevation 129' NGVD1929, which is 2 feet above the BFE. It has been determined that an NJDEP Flood Hazard Area (FHA) Individual Permit is not required for this project since no portion of the building will be located in the 100-Year floodplain..

### **5.3 Biological Resources**

The existing firehouse is a developed lot and surrounded by development. The proposed firehouse site includes two (2) parcels that are currently vacant. Lot 14 previously contained a residential dwelling until purchased by the City in 2006 and eventually demolished. The other parcel, a 1.7-acre portion of Lot 2 has historically been used as a municipal park. The park may currently support common urban wildlife (e.g. squirrels, chipmunks, rock doves, etc.), however, due to the urbanization of the surrounding area, the amount of species contained on the portion of Lot 2 is likely limited. Multi-family residential housing borders the east side of the proposed site while partially wooded parkland is located to the north and west.

#### **5.3.1 Threatened and Endangered Species and Critical Habitat**

The Natural Heritage Database search (*Appendix Q*) identified the occurrence or potential habitat for the Indiana Bat (*Myotis sodalis*), a Federally listed endangered species, on or near the site's impact area. The US Fish and Wildlife Service Map of the Indiana Bat Distribution in New Jersey Map, also included in *Appendix Q*, depicts the site outside the border of the potential Indiana Bat habitat area.

##### **Alternative 1 – No Action**

The no action alternative would have no adverse impacts on threatened or endangered species.

##### **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Reconstruction of the existing facility would have no adverse impacts on threatened or endangered species or critical habitat.

##### **Alternative 3 – Construct a New Firehouse on McBride Avenue**

The proposed new construction would not adversely impact threatened or endangered species or critical habitat. The project site is not located within the summer roost habitat of the Indiana bat. Correspondence found in *Appendix Q* documents FEMA's finding of no adverse effect on the Indiana bat or its habitat and USFWS's concurrence with not likely to adversely affect. No conservation measures are required for the proposed action.

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### 5.3.2 Migratory Birds

There are approximately 45 species of migratory birds breeding in the general area of the proposed project site. The Migratory Bird Treaty Act (MBTA) prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Neither the MBTA nor its implementing regulations at 50 CFR Part 21 provide for permitting of "incidental take" of migratory birds.

**Alternative 1 - No Action**

The no action alternative would have no adverse impacts on migratory bird species.

**Alternative 2 - Renovate/Reconstruct Grand Street Firehouse**

Reconstruction of the existing facility would have no adverse impacts on migratory bird species

**Alternative 3 - Construct a New Firehouse on McBride Avenue**

The project as proposed will require the removal of trees and shrubs, which could result in the take of migratory bird species. According to the New Jersey Division of Fish and Wildlife Guidance Manual for the Protection of Fish and Wildlife Resources, and comments received from the U.S. Fish and Wildlife Service, the appropriate timing restriction to protect nesting migratory birds from tree or shrub/scrub removal is March 15 to July 31.

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## 5.4 Air Quality

The U.S. Environmental Protection Agency (EPA) established the Air Quality Index (AQI) for State and local governments to provide the public with information about air quality as it relates to public health and safety. Congress enacted the Clean Air Act (CAA), which requires the EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The CAA created two (2) types of national air quality standards: primary and secondary. The primary standards set limits to protect public health while the secondary standards set limits to protect public welfare.

AQI Report data from two (2) air monitoring stations in Bergen and in Passaic Counties were used. The air monitoring station for Passaic County in Paterson does not monitor CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM<sub>10</sub> (air particulates <10 μm in diameter) air pollutants, therefore the Bergen County air monitoring station in the Borough of Hackensack is the second closest to the site. The 2008 AQI Report for Passaic County had a total of 225-days of AQI data, of which 188-days were reported as “Good”, 33-days were reported as “Moderate”, 4-days were reported “Unhealthy for Sensitive Groups”, 0-days were reported as “Unhealthy”, “Very Unhealthy”, or “Hazardous”. The primary pollutant was ozone (O<sub>3</sub>) for 198 of the 225-days, and PM<sub>2.5</sub> (air particulates <2.5 μm in diameter) for 27-days.

The Bergen County air monitoring station recorded AQI data for 275-days in 2008, of which, 178-days had “Good” air quality, 90-days had “Moderate” air quality, and 7-days had air quality that was “Unhealthy for Sensitive Groups”, and 0-days were reported “Unhealthy”, “Very Unhealthy”, or “Hazardous”. The primary pollutant was O<sub>3</sub> for 133 of the 275-days, CO for 3-days, PM<sub>2.5</sub> for 27-days, PM<sub>10</sub> for 11-days, and NO<sub>2</sub> and SO<sub>2</sub> were the primary pollutant for 0-days. The results of the 2008 AQI Report for Passaic and Bergen Counties are included in *Appendix M*.

### **Alternative 1 – No Action**

Since no construction or renovation will occur, there will be no additional impacts to air quality.

### **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Renovation of the existing site will cause short term impacts to the air quality due to dust and gasoline powered engine emissions. To suppress dust generation, the contractor will use water to wet construction surfaces where applicable via a water truck or other temporary watering equipment. Fugitive dust will be monitored using temporary equipment installed along the site’s perimeter. If gasoline powered machinery is required for renovation of the existing firehouse, gasoline fumes will be controlled by reducing the run time of construction equipment where applicable and through proper engine maintenance.

Due to the age of the existing facility, there is a possibility for the generation lead and asbestos particulate material during the construction phase. Emissions can be eliminated by the remediation of hazardous materials prior to performing any renovation.

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**Alternative 3 – Construct a New Firehouse on McBride Avenue**

Construction of the new firehouse will cause minor short term impacts to the immediate area's air quality due to dust generated during construction and the use of diesel/gasoline powered engine emissions. Similar to Alternative 2, to suppress dust the contractor will use water to wet construction surfaces where applicable via a water truck or other temporary watering equipment. Fugitive dust will be monitored using continuous monitoring with an aerosol monitor and temporary readings at the site's perimeter. Gasoline/diesel fumes such as carbon monoxide, nitrogen dioxide, ozone, and particulates created by the operation of heavy construction equipment will be controlled by reducing the run time of construction vehicles and equipment and through proper engine maintenance.

Long-term impacts include diesel and/or gasoline emissions from the fire company's trucks. However, the proposed site lies within the City of Paterson and is located less than ¼-mile from the existing fire house therefore any long-term impacts are minimal.

**5.5 Traffic and Zoning**

Both the existing and proposed site locations are located in developed area with traffic patterns typical of urban mixed residential and commercial environments. The existing firehouse lot is zoned for its current use. The proposed site is located on a portion of Block 5004, Lot 2 (Pennington Park) and on Block 5004, Lot 14 (formerly residence). Pennington Park is designated open space as part of the NJDEP Green Acres Program.

**Alternative 1 – No Action**

No changes to zoning or traffic would occur with the no action alternative. Fire station vehicles would continue to park on, and travel through, roadways in the surrounding area.

**Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Renovation to the existing facility would cause a short term increase in traffic during the work. Activities would require staging due to the area's congested roadways and the limited size of the site. Also, most construction vehicles would be required to park off-site in a vehicle storage area and traffic may need to be diverted. Following completion of the work, there would be no significant increase in traffic above current fire department operations.

**Alternative 3 – Construct a New Firehouse on McBride Avenue**

The new parcel must be created out of a portion of Block 5004, Lot 2 (Pennington Park) and on Block 5004, Lot 14 (formerly a residence). In order to develop Green Acres properties, a Diversion of Use is required which entails replacing the disturbed property with land of twice the size and twice the value. The City of Paterson Fire Department has selected the following parcels owned by

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the City of Paterson for conservation through the NJDEP Green Acres Program:

- 63-95 Clinton Street, Block 201, Lot 2 (1.12-acres);
- 143-145 River Street, Block 3701, Lot 14 (0.09-acres);
- 147-157 River Street, Block 3701, Lot 15 (0.30-acres); and,
- 396-560 Boulevard, Block 8201, Lots 1 and 2 (4.28-acres).

The Diversion of Use is scheduled for a final approval vote by the NJDEP Green Acres Commission in June 2012.

During construction of the new firehouse, there would be a temporary increase in construction vehicular traffic along McBride Avenue. Traffic flow would also be impacted during emergency responses and training exercises. Fire station member vehicles would park in the proposed parking lot behind the building, reducing the negative impact to curbside parking congestion in the neighborhood. Overall, after completion of the proposed action, no significant increase in the area's traffic is anticipated.

## **5.6 Noise**

The United States Congress' Noise Control Act of 1972 required the US EPA to create a noise criteria. In response, the EPA published *Information On Levels Of Environmental Noise Requisite To Protect Public Health and Welfare With An Adequate Margin Of Safety* in 1974 which explains the impact of noise on humans.

Noise pollution is in general measured in decibels (dB) which measure the intensity of sound. Day-night average sound level ( $L_{dn}$ ) is used to measure the average sound impacts for the purpose of guidance for compatible land use. The EPA report found that the maximum 24-hour  $L_{dn}$  value is 70 dB before causing hearing loss. Maximum outdoor activity interference in a residential neighborhood is 55 dB for  $L_{dn}$ . Maximum indoor activity interference in a residential neighborhood is 45 dB for  $L_{dn}$ . However, impulse noise or peaks can be a maximum of 167 dB before causing hearing loss. Most fire engine sirens are between 100-120 dB at the source, well below the 167 dB maximum impulse noise exposure recommendation. Sirens from fire engines are used infrequently, only during emergencies, and the daily  $L_{dn}$  value would be well below the EPAs recommendation.

### **Alternative 1 – No Action**

Emergency response noise would continue as it has with no additional impacts related to noise pollution.

### **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Due to the extent of renovations on the existing firehouse, use of construction equipment would temporarily cause an increased noise level. Due to the predominantly residential use of the

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surrounding area, construction would be restricted to normal business hours to reduce noise levels. Otherwise, no additional impacts related to noise pollution are anticipated for this alternative.

### **Alternative 3 – Construct a New Firehouse on McBride Avenue**

Construction of the new firehouse would cause a temporary elevation in noise level, which would be restricted to normal business hours when residents are typically away from their homes. Any blasting of bedrock, which may be required for excavation, would also occur during normal business hours. All construction equipment on site will be inspected to meet all federal and state noise regulations. Vehicle traffic would increase slightly over the long term, mainly due to training exercises and responses to fires, traffic collisions, and other emergencies. Noise peaks created during emergencies are not expected to be in excess of the recommended 167 dB L<sub>dn</sub> in a 24-hour period. Moreover, the proposed site lies within ¼-mile of the existing firehouse, therefore siren noise in the general area will not change drastically.

## **5.7 Cultural Resources**

Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800 requires federal agencies to consider the effects of their actions on historic properties and provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on federal projects that will have an effect on historic properties. These actions must take place prior to the expenditure of federal funds. Historic properties include districts, buildings, structures, objects, landscapes, archaeological sites and traditional cultural properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP).

Archaeologists and Architectural Historians, qualified in their respective disciplines under the Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61), conducted assessments of the project's potential to affect historic properties in accordance with Section 106 within the Area of Potential Effect (APE). The APE is the geographic area within which an scope-of-work (Undertaking) may directly or indirectly cause changes in the character or use of historic properties, if such properties exist.

### **5.7.1 Archeological Resources:**

The APE for Section 106 Archeological review was determined to be the footprint of the proposed fire station. Phase IA-1B and Phase II archaeological surveys were conducted by Boswell Engineering, subcontracted to Richard Grubb & Associates, Inc. (RGA) because of a prehistoric site situated approximately 50 feet from the APE that had the potential to extend into the APE. In addition, a small frame dwelling that occupied the APE from the 1890s to the twentieth century had been located within the APE. A pre-1861 dwelling (Colt/Pennington house) was located near the west side of the APE at the current location of the World War I monument.

No prehistoric cultural material was found in the Phase IA-1B survey. Most of the artifacts recovered were re-deposited and associated with demolition activities associated with the

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nineteenth-century Colt/Pennington house between 1915 and 1928 and the small frame dwelling. One intact site within the APE was associated with the early occupants of the Colt/Pennington house from the 1820s to the 1840s and as a result, FEMA and SHPO concurred that a Phase II archeological survey was required. The Phase II survey revealed a total of 11 prehistoric artifacts and 3,947 historic artifacts. No prehistoric or historic cultural features were identified. The investigations failed to conclusively link recovered material culture with specific occupants of the site, including Roswell Lyman Colt, Sr., Roswell Lyman Colt, Jr., or potential tenants. Therefore, FEMA and NJ SHPO concurred that Phase II archaeological investigations lacked integrity and did not represent a significant archaeological resource. No further archaeological investigations were recommended. A copy of RGA's Phase IA-1B (*Phase I Archaeological Survey, New Engine Company No. 7, 290-296 McBride Avenue, Block 5004, Lot 14 and Part of Lot 2, City of Paterson, Passaic County, New Jersey*) and Phase II (*Phase II Archaeological Investigation, the McBride Avenue Site (28-PA-203) New Engine Company No. 7, 290-296 McBride Avenue, Block 5004, Lot 14 and Part of Lot 2, City of Paterson, Passaic County, New Jersey*) archaeological survey reports and consultation correspondence between FEMA and the New Jersey State Historic Preservation Officer (NJ SHPO) are available from the New Jersey State Historic Preservation Office.

## Standing Structures

Existing 97 Grand Street Fire Station: FEMA consulted with the NJ SHPO regarding the existing fire station at 97 Grand Street, acknowledging that a change in use of the existing fire station was a possible direct result of FEMA-DHS funding the construction of the proposed McBride Avenue station. Under 36 CFR § 800.5(a)(iv), a change in use has a potential for an adverse effect. FEMA and NJ SHPO agreed that the fire station is individually eligible for listing in the NRHP under Criterion C as being architecturally significant as an example of an early-twentieth century, single-company fire station. It was constructed in 1912 for Engine Company Eleven which serviced the emerging the suburbs of Southwest Paterson. It utilized the second motorized apparatus in the history of the Paterson Fire Department. As the last single-company fire station constructed, it represents the end of the use of the single-company fire station and the beginning of the use of the motorized apparatus and the centralized fire station in fighting fires in Paterson. Presently, it is last functioning single-company fire department in the city. FEMA and NJ SHPO concurred that the potential change in use is a reasonable and foreseeable effect that is potentially adverse. The 97 Grand Street Fire Station eligibility determination and FEMA/SHPO consultation correspondence is available from the New Jersey State Historic Preservation Office.

Proposed Fire Station at 290-296 McBride Avenue: The proposed fire station is to be located in Pennington Park directly east of the Pennington Park World War I Memorial. It was determined that the memorial and knoll upon which it was sited were located within the APE of the proposed fire station. In August of 2011 RGA completed an eligibility determination for the monument, and FEMA and SHPO agreed that the knoll is individually eligible for the NRHP under Criterion C as an architecturally and artistically significant example of a major World War I commemorative monument. The memorial was the design of Architect Franklin L. Naylor and features a bronze sculpture which is the work of Gaeta no Federica, a master sculptor from Paterson. The memorial also meets the National Register Criterion Consideration F, as its design has invested it with its

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own historic significance. FEMA and SHPO concurred that the proposed construction of the fire station within the APE would diminish the Pennington Park War Memorial's integrity of setting and feeling by altering the landscape, an integral and character defining feature of the Pennington Park War Memorial and as a result, the construction of the proposed fire station would have an adverse effect upon historic properties. A copy of the eligibility determination (*National Register of Historic Places Evaluation and Assessment of Project Effects, City Of Paterson, Passaic County, New Jersey*) and FEMA/SHPO consultation correspondence is available from the New Jersey State Historic Preservation Office.

### **5.7.2 Alternatives:**

#### **Alternative 1 – No Action**

The no-action alternative would not cause impact to historic properties because no construction would occur.

#### **Alternative 2 – Renovate/Reconstruct Grand Street Fire Station**

Alternative 2 would require renovation of the 95-97 Grand Street fire station, determined eligible for the NRHP. The 100 year old fire station is a two-story building with a rear addition comprising approximately 2,200 square feet located on a narrow lot (60' x 106') encompassing approximately 0.112-acres. While the apparatus floor has been reinforced to support the weight of modern fire apparatus, the size of the bay door (already enlarged) and the apparatus bay area prevents the majority of the fire department's apparatus from fitting inside the building. Furthermore, it has insufficient storage facilities, a lack of gender specific sleeping quarters, a lack of fitness/training facilities, inadequate employee safety protections and poor energy efficiency. Because of the age, size and configuration of the building and property on which it is sited, it would be a considerable challenge to bring the old station into compliance with current codes and standards without significantly altering those features of the building that make it National Register eligible. As a result, it is likely that the renovation/reconstruction of the building to meet current codes and standards would trigger an adverse effect finding under 36 CFR § 800.5 that, in turn would lead to further negotiation to determine treatment measures that would limit, minimize and/or mitigate the adverse effects in accordance with 36 CFR § 800.6. It could be a lengthy process and, in the end, the historic features of the building could be severely compromised.

#### **Alternative 3 – Construct a New Fire Station on McBride Avenue**

Archaeological Resources: Based upon the Phase IA-1B and Phase II Archaeological Surveys that were conducted by RGA, FEMA and NJ SHPO concurred that the archaeological component of the McBride Avenue site lacked integrity and did not represent a significant archaeological resource. It is unlikely that any excavation for the New Fire Station will impact significant archeological resources.

Standing Structures: It was determined that the Pennington Park War Memorial and the knoll upon

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which it is located is within the APE. FEMA and NJ SHPO agreed that that the memorial, including its setting is individually eligible for the NRHP and concurred that the construction of the proposed fire station constitutes an adverse effect. In addition, FEMA and the NJ SHPO agreed that Grand Street Fire Station may undergo a change in use as a direct result of FEMA-DHS funding the construction of the new station, and have found that the reasonable and foreseeable effect of the reuse of the old fire station has a potential for an adverse effect. In accordance 36 CFR § 800.6, FEMA, NJ SHPO, the Grantee and the Paterson Historic Preservation Commission entered into an Memorandum of Agreement (MOA) that included measures to minimize and mitigate these adverse effect including:

- (1) The Grantee is responsible for hiring qualified a historic landscape architect who will (1) design a vegetative screening plan that will sufficiently conceal the view of the newly constructed fire station from the memorial and (2) assess the existing plans for the retaining wall to be located near the monument and determine if it is in keeping with the historic nature of the site. Both plans will be reviewed and approved by the NJ SHPO and the Paterson Historic Preservation Commission prior to their implementation.
- (2) To minimize potential damage to the monument during the construction of the fire station, the grantee will complete a conditions assessment of the monument and monitoring plan. The monitoring plan will take into account the potential damage as a result of vibrations and the construction equipment operated near the monument and will be completed by a qualified conservator of stone masonry. The grantee will submit the conditions report and the monitoring plan to the NJ SHPO and the Paterson Historic Preservation Commission for review and comment prior to beginning construction
- (3) The Grantee will complete a National Register Nomination for the 95-97 Grand Street Fire Station that meets the guidelines set forth by the Secretary of the Interior and the final approval of the NJ SHPO. NJ SHPO is responsible for the submittal and nomination of the property to the State or National Register.
- (4) A Post Review Discovery stipulation has been included in the MOA that requires ceasing construction in the immediate area should unidentified archeological sites be uncovered and that provides for measures on how to proceed thereafter.

A copy of the MOA (*Memorandum of Agreement among the Federal Emergency Management Agency, the New Jersey Historic Preservation Officer and the City of Paterson Fire Department*) is located in **Appendix Y**.

### **5.7.3 Tribal Coordination and Religious Sites**

#### **Alternative 1 – No Action**

Under the no-action alternative, there would be no impacts to Native American resources or religious sites.

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## **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

It is unlikely that any excavation related to the renovation/reconstruction of the Grand Street Station would impact Native American resources or religious sites because the fire station is not located in an archaeologically sensitive area.

## **Alternative 3 – Construct a New Firehouse on McBride Avenue**

FEMA consulted with three (3) non-resident, Federally-recognized Indian tribes that may have historic interests in this area, the Delaware Nation of Oklahoma, the Delaware Tribe of Kansas and the Shawnee Tribe of Oklahoma. All three (3) tribes asked to be contacted should human remains, prehistoric sites or objects be uncovered. Despite the presence of a prehistoric site situated approximately 50 feet from the APE (see 5.81, Archaeological resources) that had the potential to extend into the APE, no prehistoric cultural material was found in the Phase IA-1B survey. Four (4) of the 11 prehistoric artifacts uncovered in the Phase II survey were flakes recovered from intact subsoil contexts. The remaining seven (7) prehistoric artifacts include debitage, fire cracked rock, and thermally altered rock recovered from disturbed contexts. These artifacts may have been displaced from an off-site location, such as the nearby Monument Knoll site (28-Pa-166), or redeposited from within the McBride Avenue site. No temporally diagnostic prehistoric artifacts were recovered. FEMA and SHPO concurred that Phase II archaeological investigations lacked integrity and did not represent a significant archaeological resource. No further archaeological investigations were recommended. As a result, it is highly unlikely that Native American resources or religious sites would be impacted under Alternative 3. However, a Post Review Discovery stipulation has been included in the MOA (See 5.8.3, Alternative 3) that requires ceasing construction in the immediate area should unidentified archeological sites or human remains be uncovered. In addition, it provides for measures on how to proceed thereafter and includes a reference on how to proceed specifically if discovered human remains are determined to be American Indian. Consultation correspondence with the three (3) tribes is located in *Appendix T*.

## **5.8 Socioeconomic Resources**

The following section discusses the potential socioeconomic effects of the project's alternatives:

### **5.8.1 Environmental Justice**

Executive Order 12898 Environmental Justice for Low Income and Minority Populations directs federal agencies to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high adverse human health or environmental effects of its activities on minority and low-income populations. Per EPA Region 2's *Guidelines for Conducting Environmental Justice Analyses*, for New Jersey State, a community would be considered an Environmental Justice (EJ) community if the minority population percentage was 48.52% or higher for urban areas or if 18.58% or more of the community population was below poverty. Paterson zip code 07501 is an Environmental Justice community with a population of 77.366% minority and 40.936% low-income families based upon 2010 U.S. Census data (*Appendix*

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**Alternative 1 – No Action**

The no action alternative would not cause an adverse effect on Paterson's EJ community.

**Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Alternative 2 would not cause an adverse effect on Paterson's EJ community. The building renovation would benefit the community due to enhanced public safety resources.

**Alternative 3 – Construct a New Firehouse on McBride Avenue**

Alternative 3 would not result in an adverse effect on Paterson's EJ community. The new facility would benefit the community due to enhanced public safety resources.

## **5.9 Public Health and Safety**

All construction projects will follow safety precautions using qualified and fully certified personnel operating properly maintained and inspected equipment. All work will be carried out in accordance to Occupational Safety and Health Act (OSHA) requirements.

**Alternative 1 – No Action**

This alternative continues to put the firefighters at risk due to numerous building hazards and code violations associated with the 100-year old structure. Moreover, the no action alternative also continues to place the public at risk since the existing facility is outdated and cannot accommodate larger modern fire equipment.

**Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

The alternative to renovate the existing facility will improve the health and safety of the workers at the Engine Company No. 7. Renovations would remove the structural problems and safety concerns. However, lead and asbestos particulates have the potential to cause harm to the public if released during the construction/renovation and should therefore be remediated by qualified individuals prior to the work.

During construction Engine No. 7 would be required to relocate to a temporary facility not designed as a firehouse. This temporary facility would significantly increase response times and negatively affect the health and safety of the surrounding community. Even after the renovation the building will not be large enough to accommodate larger modern fire equipment.

**Alternative 3 – Construct a New Firehouse on McBride Avenue**

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The new firehouse would be built by qualified personal who are specifically trained with regards to site specific risks and hazards. Since the proposed site is in a residential area and adjacent to a public park, access to the site will be restricted prior to the start of construction using appropriate barriers and signs so that unauthorized personnel cannot enter the site. During construction, the current facility on Grand Ave will continue to be utilized for Engine Company No. 7 to provide emergency response service the community.

After the construction is completed, the new facility will provide increased protection for the firefighters and the community, allowing for equipment designed for the needs of the department and the service area. Response time would not be decreased significantly for this alternative, as the new firehouse will be located within ¼ mile from existing facility and inside of the Pennington Park Area of the City of Paterson. The proposed action would be an overall increase in the health and safety of the public.

## **5.10 Climate Change**

The following section details the project’s potential climate impacts:

### **Alternative 1 – No Action**

The no action alternative will not create any climate impacts since there would be no changes to the existing conditions at the Grand Street Fire Station.

### **Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Renovating the existing Grand Street Firehouse would improve the overall environmental impact from the operations at Engine Company No. 7. Installing new insulation materials, repairs to the roof, and repairing the heating system would improve heating efficiency and reduce the climate impact.

### **Alternative 3 – Construct a New Firehouse on McBride Avenue**

New building and insulation materials along with a modern heating/cooling system would improve the building’s energy efficiency and reduce the required energy, even though the proposed facility is larger than the existing firehouse. The building would also have a new electrical system that would be up to electrical code and have a higher efficiency than the existing site.

## **5.11 Cumulative Impacts**

The Council on Environmental Quality’s (CEQ) definition of cumulative effects as they pertain to the NEPA is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR, 1508.7). The causes of cumulative impact are the inability to identify the consequences of multiple impacts to the

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environment. The CEQ requires the assessment of cumulative impacts based on guidance found in *Considerations of Cumulative Impacts in EPA Review of NEPA Documents* – by the U.S. EPA Office of Federal Activities, and *Considering Cumulative Effects Under the National Environmental Policy Act* – by the CEQ.

In accordance with NEPA, this EA has evaluated the Proposed Action Alternative as well as other alternatives for the Paterson Fire Department Engine Company No. 7 firehouse. Alternatives 1 and 2 utilize the existing facility without a negative impact to the environment since the building footprint would remain the same in either case.

The Proposed Action Alternative will develop 1.8-acres of a portion of the 27-acre Pennington Park. The property is encumbered by the Green Acres Program and will require a Diversion of Use to construct the firehouse. The Diversion of Use would require the City of Paterson to compensate for the Green Acres land that will no longer be used as public use in a 2:1 ratio both in size and value. However, there is no potential for further future development in the area since the area to the south and east of the property is densely developed residential housing; land to the west is also a part of the NJDEP Green Acres program and disturbing that land would require additional Diversion of Use and Compensation. Therefore, based on our analysis, additional secondary development is not anticipated in the vicinity of the New Engine Company No. 7 firehouse. No current proposed or occurring actions by others were identified in the vicinity of the proposed site; therefore, no cumulative impacts are anticipated for this project.

## **5.12 Hazardous Materials**

Boswell reviewed records of hazardous material incidents (spills, releases, waste sites etc.) within a 1,000' distance from the proposed site with data from EDR and the NJDEP. Data sources included in the search were:

- Federal Resource Conservation and Recovery Act (RCRA) sites;
- Federal National Priority List (NPL) sites;
- Federal, state, and tribal Comprehensive Environmental Response, Compensation, and Liability Sites (CERCLIS);
- Federal institutional controls/engineering controls registries;
- State, tribal, and local land fill/solid waste disposal site list;
- State, tribal, and local brownfields;
- State and tribal Leaking Storage Tank Lists (LUST);
- State and tribal registered storage tank lists;
- State and tribal voluntary cleanup sites; and
- State Chromate waste sites.

A scaled Global Information System (GIS) map of the sites identified in the EDR report and the NJDEP's NJ-GeoWeb program and a complete list of sites within a 1,000' radius is included in *Appendix N*. The EDR Radius Report and NEPA Check Report are included in *Appendix W*.

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**Alternative 1 – No Action**

Since no construction will occur either at the proposed site or the existing Grand Street firehouse, there will be no disturbances related to potential onsite hazardous materials. However, potential hazardous materials such as lead based paint (LBP) and asbestos containing materials (ACM) may still remain on site given the building's age.

In addition to potential LBP/ACM, Boswell submitted an OPRA request to the NJDEP. The State reported one (1) former 550 gallon-No. 2-D Medium Diesel Fuel UST and one (1) active 1,000-gallon No. 2 Home Heating Oil UST. Under the no action alternative, the firehouse would continue the existing UST to supply fuel for the building's heating system.

**Alternative 2 – Renovate/Reconstruct Grand Street Firehouse**

Renovation of the existing Grand Street Firehouse may include the disturbances of onsite hazardous material including LBP/ACM due to the structure's age (approximately 100-years). All hazardous materials identified during renovations would need to be remediated by certified professionals and disposed in accordance with Federal and State regulations. A possible benefit of renovating the existing firehouse would be to remove the existing UST and convert the building's heating system to natural gas. However, contamination could be encountered during the fuel tank's removal. Moreover, it is certainly possible that the building's heating system could be functioning properly and replacing the system may be an unnecessary expense to the City.

**Alternative 3 – Construct a New Firehouse on McBride Avenue**

According to the EDR report (*Appendix W*), a spill was called into the NJDEP Spill Hotline on June 4, 2001 when a substance from an unknown source was found in stormwater drain in the area of 292 McBride Avenue. The spill was assigned NJDEP Case Number **01-06-04-1505-45**. The Passaic County Department of Health also reported that two (2) empty 5-gallon ethanol drums in the Passaic River on December 16, 1999 and removed by the Paterson DPW. Lastly, New Jersey Water Watch detected elevated levels of cyanide in the Passaic River and contacted the NJDEP, which issued Case Number **99-01-12-1151-44**. After a site inspection the case manager issued a No Further Action Letter. No USTs, ACM, LBP or other environmental concerns were reported by NJDEP, the City of Paterson, or the County of Passaic at the proposed site.

A portion of the proposed site was historically a residential property since 1915 or earlier and would also not be a likely source of surficial contamination. However the residence may have utilized a UST for heating fuel sometime in the past. On October 17, 2011 Boswell contracted Goldstar Environmental Services, Inc. (Goldstar) to perform a geophysical survey of the property to investigate the potential presence of an abandoned or forgotten UST. The geophysical survey did not detect any subsurface anomalies indicative of a UST or associated materials. Nearby residents reported that the heating oil UST for the former residential building was removed "years ago". Furthermore, soil borings in the vicinity of the former UST did not contain any stained soils or Extractable Petroleum Hydrocarbons (EPH) above background concentrations, well below the most stringent regulatory standards. Boswell therefore does not recommend further investigation for the

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presence of USTs on the proposed site. For more information on the environmental Site Investigations (SI) performed at the site please refer to Boswell's SI Report attached separately as *Appendix X*.

Geotechnical soil borings completed by Johnson Soils (*Appendix J*) indicated the presence of cinders in Boring B-3 and Test Pit No. 5. Historic fill was used in the past to topographically raise low-lying properties and typically contains varying amounts of construction debris, ash, cinders and dredge spoils. The fill was obtained from various sources and frequently exhibits low to moderate levels of heavy metals, polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB) above the NJDEP's most stringent Soil Remediation Standards (SRS).

On October 17, 2011 Boswell contracted Goldstar to advance 10 soil borings and install one (1) temporary well point throughout the site in order to identify and characterize any historic fill located on the proposed subject property. Historic fill was identified and visually delineated in the northeast and southwest portions of the site. Six (6) soil samples were collected and analyzed for EPH, PCBs, and metals with a contingent analysis of PAHs on 25% or two (2) of the samples. The soil sample results indicated PAH concentrations in one (1) of the samples slightly above the NJDEP's Residential Direct Contact Soil Remediation Standards (RDCSRS) and metals above the NJDEP's Impact to Groundwater Soil Screening Level (IGWSSL). The groundwater sample contained metal contamination slightly above the NJDEP's Groundwater Quality Criteria (GQC), which may be elevated due to the turbidity commonly associated with temporary well points.

Based on the results of the soil sampling, the historic fill material is contaminated with low level PAHs slightly above the RDCSRS. The historic fill contamination can be addressed before or during the construction of the new facility either through excavation and disposal of the contaminated soil or by capping the contaminated soils through engineering and institutional controls (i.e. deed notice). However, all construction workers that have a risk of direct exposure to the historic fill material should receive Occupational Safety and Health Administration (OSHA) 40 Hour HAZWOPER training prior to entering the work site. For more information please refer to Boswell's 2012 SI Report attached separately as *Appendix X*.

### 5.13 Summary Table of Potential Environmental Impacts for Evaluated Alternatives

A summary table is listed below comparing the impacts from the project alternatives as well as the proposed mitigation to offset each impact

<b>Impact and Mitigation Summary Table</b>			
<b>Affected Environment</b>	<b>Alternative Action 1: No Action</b>	<b>Alternative Action 2: Renovate/Re-Construct Existing Firehouse</b>	<b>Alternative Action 3: Construct New Firehouse (Proposed Action)</b>
Geology, Seismicity, and Soils	No Impact.	No foreseen impacts to geology. Short term impacts to soil during construction are possible.  If soil erosion is expected, employ anti-erosion BMPs and landscape/plant vegetation shortly after project completion.	Blasting of bedrock may be required. Short term impacts to soil during construction.  Anti-erosion BMPs including: silt fences construction aprons and inlet filters, etc. Landscaping and vegetation should be planted shortly after project completion and comply with HEPSCD standards.
Water Resources and Water Quality	No Impact.	Short term impacts to surface water possible during construction.	Short term impacts to surface water possible during construction. Slight reduction in infiltration due to impervious surfaces.  SP3 is required, utilizing BMPs. Underground retention basin under parking lot will increase stormwater quantity, groundwater infiltration and promote water quality.
Wetlands	No Impact.	No Impact.	No Impact.
Floodplain	No Impact.	No Impact.	Proposed critical facility partially located in 500-Year floodplain. New building and above-ground utilities will be constructed at or above the BFE for the 500-Year floodplain to minimize future risk of flood damage.
Coastal	<i>Not Applicable</i>		
Threatened and Endangered Species	No Impact.	No Impact.	No adverse impacts anticipated.
Migratory Birds	No Impact.	No Impact.	Removal of foliage could result in take of migratory bird species. Work will be restricted, so that no trees or shrubs will be removed between March 15 and July 31.

**Impact and Mitigation Summary Table (Continued)**

<b>Affected Environment</b>	<b>Alternative Action 1: No Action</b>	<b>Alternative Action 2: Renovate/Re-Construct Existing Firehouse</b>	<b>Alternative Action 3: Construct New Firehouse (Proposed Action)</b>
Air Quality	No Impact.	<p>Sort term construction impacts due to dust and vehicle exhaust. Lead and asbestos particulate matter may be present.</p> <p>Dust can be minimized by wetting down construction surfaces when applicable. Exhaust can be minimized by proper maintenance of equipment and limiting run times. Lead and asbestos should be remediated by qualified professionals prior to renovation.</p>	<p>Short term construction impacts due to dust and vehicle exhaust.</p> <p>Air born dust can be minimized by wetting down of construction surfaces when applicable. Exhaust can be minimized by proper maintenance of equipment and limiting run times.</p>
Traffic and Zoning	No Impact.	<p>Temporary increase in traffic during construction.</p> <p>Limit construction times to business hours. Staging of construction. Construction vehicles will be parked offsite.</p>	<p>Increased traffic flow during emergency response and training exercises. Reduced impact to curbside parking due to construction of parking lot. Creation of a new parcel for firehouse.</p> <p>Limit construction times to business hours. Staging of construction. Construction vehicles will be parked offsite. The proposed action will have adverse impacts due to loss of parkland for building construction. The land lost is designated as Green Acres open space. The loss of the open space acreage will be mitigated offsite or by other compensatory mitigation as part of a formal diversion process regulated by the NJDEP. The City of Paterson will be responsible for completing the diversion process to avoid loss of federal funding.</p>
Noise	No change to noise impact.	<p>Short term increased noise during construction. Impact will then return to normal.</p> <p>Limit construction times to business hours. Proper maintenance of equipment. Siren noise peaks still below maximum exposure and 24 hour exposure limits.</p>	<p>Short term increased noise during construction. Increased siren noise during operation.</p> <p>Limit construction times to business hours. Proper maintenance of equipment. Siren noise peaks still below maximum exposure and 24 hour exposure limits.</p>

**Impact and Mitigation Summary Table**

<b>Affected Environment</b>	<b>Alternative Action 1: No Action</b>	<b>Alternative Action 2: Renovate/Re-Construct Existing Firehouse</b>	<b>Alternative Action 3: Construct New Firehouse (Proposed Action)</b>
Cultural Resources	No Impact.	Inability to retain National Register eligibility of building and at the same time accommodate all the requirements of the new fire station. Possibility of retaining National Register eligibility of building if significantly scale down requirements of new fire station.	The proposed action is anticipated to have potential adverse affects to existing fire station and adverse effect to World War I Monument and the knoll upon which it is sited. An MOA has been prepared and has documented several mitigation and protection measures including: (1) Preparation of a nomination package for existing fire station listing on the State and National Register of Historic Places; (2) Landscape vegetative screen to be designed and installed between the new fire station and World War I Monument to shield the monument from the fire station; (3) Completion of a conditions assessment of the monument and a monitoring plan to protect it from potential damage from vibrations and the construction equipment itself to be operated near the memorial; and (4) Ensure that the design of the proposed retaining wall, to be located near the monument, is in keeping with the historic nature of the memorial. .
Environmental Justice	No Impact.	No adverse impacts on low-income minority populations. Action benefits all populations equally.	No adverse impacts on low-income minority populations. Action benefits all populations equally.
Public Health, Safety, and Security	No Impact.	Short term impacts due to delays in emergency response services.  Delays are inevitable.	No adverse impacts expected.
Climate Change	No Impact.	Install new insulation materials, upgrade heating system, upgrade electrical system.  Reduces climate impact by increasing heating and electrical efficiency.	Install new efficient heating and cooling system, electrical system, and insulation.  Heating and cooling system reduces impact to microclimate.

<b>Impact and Mitigation Summary Table (Continued)</b>			
<b>Affected Environment</b>	<b>Alternative Action 1: No Action</b>	<b>Alternative Action 2: Renovate/Re-Construct Existing Firehouse</b>	<b>Alternative Action 3: Construct New Firehouse (Proposed Action)</b>
Hazardous Materials	No Impact.  ACM/LBP will remain.	Possible discovery of lead based paint and or asbestos containing material.  Any hazardous materials will be remediated and disposed in accordance with State and Federal standards.	Isolated areas of historic fill contaminated with PAHs.  Contaminated soils must be removed prior to construction or left in place as part of the remedial action. Only qualified professionals should come in contact with contaminated materials.

## **6.0 PERMITS AND CONDITIONS**

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The City of Paterson Fire Department is responsible for obtaining all applicable permits prior to the construction of the proposed firehouse on McBride Avenue in accordance with all Federal, State, and local regulations. The following is a list of permits that may be required for the construction of the proposed facility:

- Building Permit;
- Sewage Discharge Permit;
- Hudson-Essex-Passaic County Soil Conservation District Soil Erosion Permit;
- Gas and Electrical Permits;
- NJDEP Green Acres Diversion of Use;
- NJDEP Treatment Works Approval (TWA);
- Passaic County Planning Board Approval;
- HEPCD; and,
- City of Paterson Approval.

Additionally, the City of Paterson Fire Department will be responsible for adhering to the below grant project conditions.

1. The proposed new building must be elevated or flood-proofed to at/above the Base Flood Elevation for the 500-Year floodplain to comply with EO 11988, 44CFR Part 9 and to be consistent with the National Flood Insurance Program.
2. The Green Acres land to be converted from parkland to development must be mitigated through the NJDEP Diversion process. The grant applicant must accomplish the mitigation prior to grant close-out and provide FEMA with documentation of the completed mitigation.
3. The grant applicant will fulfill mitigation measures and site protection measures identified in the Memorandum of Agreement for Section 106 National Historic Preservation Act compliance.
4. Excavated soil and waste materials will be managed and disposed of in accordance with applicable local, state and federal regulations. If contaminated materials are discovered during construction activities, the work will cease until the appropriate procedures and permits are implemented.
5. The grant applicant will follow applicable mitigation measures as identified in Section 7 of the Programmatic Environmental Assessment (PEA) for Grant Programs Directorate Project to the maximum extent possible.
6. In the event that unmarked graves, burials, human remains, or archaeological deposits are uncovered, the grant applicant will immediately halt construction activities in the vicinity of the discovery, secure the site, and take reasonable measures to avoid or minimize harm to the finds. All archaeological findings will inform FEMA immediately and FEMA will consult with the

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State Historic Preservation Office (SHPO) and/or Tribal Historic Preservation Officer (THPO) or appropriate Tribal official. Construction work cannot resume until FEMA completes consultation and appropriate measures have been taken to ensure that the project is in compliance with the National Historic Preservation Act and other applicable Federal and State regulations.”

7. No trees or scrub/shrubs shall be removed between March 15<sup>th</sup> and July 31<sup>st</sup>, to protect nesting migratory bird species.

## **7.0 PUBLIC INVOLVEMENT**

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### **7.1 Agency Coordination**

Boswell contacted the following agencies to acquire information or request to review project materials during the EA's preparation:

- Archeological Society of New Jersey;
- City of Paterson;
- New Jersey Department of Environmental Protection;
- New Jersey Geological Survey;
- National Resources Conservation Service;
- Passaic County;
- Passaic County Soil Survey;
- Passaic County Historian;
- Passaic County Historical Society;
- Passaic County Parks Department;
- Paterson Fire Department;
- United States Geological Survey;
- United States Department of the Interior, U.S. Fish and Wildlife Service, Natural Heritage Database;
- United States Department of the Interior, U.S. Fish and Wildlife Service, New Jersey Wetlands data; and,
- Passaic County Health Department.

### **7.2 Public Involvement**

In accordance with NEPA, this Environmental Assessment (EA) Report will be released for a 15-day public review and comment period. Availability of the document for comment will be advertised by the City of Paterson Fire Department in the Herald News and City Website. A hard copy of the EA will be made available for review at the City Hall Clerk's Office located at 155 Market Street, Paterson, New Jersey. An electronic copy of the EA is available for download from the FEMA website at [www.fema.gov/plan/ehp/envdocuments/ea-region2.shtm](http://www.fema.gov/plan/ehp/envdocuments/ea-region2.shtm). The public is invited to submit written comments by mail to FEMA Region II, Mitigation Division, Office of Environmental Planning & Historic Preservation, RM1337F, 26 Federal Plaza, NY, NY 10278 or faxed to 212-680-3602. If no substantive comments are received from the public and/or agency reviewers, the EA will be adopted as final and a Finding of No Significant Impact will be issued by FEMA. If substantive comments are received, FEMA will evaluate and address comments as part of Final Environmental Assessment documentation.

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The following agencies will receive notices of availability of the Environmental Assessment:

City of Paterson;  
NJDEP Green Acres;  
NJDEP Land Use Regulation Program;  
NJ State Historic Preservation Office;  
Paterson Historic Preservation Commission; and,  
U.S. Fish & Wildlife Service.

Property owners within 1,000' of the property boundary will also receive notice of availability of the Environmental Assessment.

## **8.0 CONCLUSIONS**

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FEMA and the grant applicant have found that the proposed alternative to construct a new firehouse facility at 290-296 McBride Avenue would be the only practicable alternative that would meet the purpose and need of the project. The proposed project is anticipated to adversely affect Green Acres parkland and historic properties as described in this report. The removal of trees or scrub/shrubs during construction may result in take of migratory bird species. As a mitigation and conservation measure, tree and scrub/shrub removal shall be restricted between March 15<sup>th</sup> and July 31<sup>st</sup>. During the construction period, short-term impacts to soils, surface water, transportation, air quality, and noise are anticipated. Short-term impacts will be mitigated utilizing best management practices, proper equipment maintenance, and appropriate signage. Worker safety will be ensured through adherence to OSHA standards. Mitigation and site resource protection measures have been incorporated into project plans to avoid, minimize or mitigation adverse impacts. Environmental impacts of construction will also be minimized through adherence to any required site and/or building permits or other authorization and the conditions described herein. The proposed critical facility would be partially located in the 500-Year floodplain. The facility, and its above ground utilities, will be elevated or floodproofed to at or above the Base Flood Elevation for the 500-Year Floodplain to minimize future risks of flood damage.

The adverse impacts to the human environment that would be associated with implementation of the proposed action would not be of a level of significance to warrant preparation of an Environmental Impact Statement. The proposed project provides benefits to the public by enhancing public fire safety operations for the Paterson community. FEMA anticipates that a Finding of No Significant Impact (FONSI) will be issued upon closure of the public review period. The FONSI will be made available on the FEMA website.

## **9.0 LIST OF PREPARERS**

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Preparation and quality assurance/quality control (QA/QC) review of this EA Report was provided by the following individuals:

Frank J. Rossi, LSRP, Project Manager, Boswell Engineering

Chris E. Arntz, P.E., P.P., LSRP, Project Engineer, Boswell Engineering

Christopher Colabaugh, Geologist, Boswell Engineering

Michael J. Gall, RPA, Senior Archaeologist, Richard Grubb & Associates, Inc.

John Bradle, Battalion Chief, Paterson Fire Department

Michael Postorino, Department Chief, Paterson Fire Department

FEMA Region 2 Environmental Planning & Historic Preservation Team

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