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Environmental Assessment
U.S. Department of Veterans Affairs

Manhattan Campus of the VA NY Harbor Healthcare System
Environmental Assessment for a Combined Heat and Power (CHP) System
Blanket Purchase Agreement: VA776-BP-0031
Task Order No: VA701-15-J-0014

Prepared for: Veterans Affairs National Energy Business Center

May 2015

Environmental Assessment
Manhattan Campus of the NY VA Harbor Healthcare System
Combined Heat and Power System

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List of Acronyms & Abbreviations

amsl	above mean sea level
APE	Area of Potential Effect
bgs	below ground surface
BMPs	Best Management Practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COTR	Contracting Officers Technical Representative
CWA	Clean Water Act
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act of 2007
EO	Executive Order
EPA	Environmental Protection Agency
ERP	Environmental Resource Permit
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
GPS	Global Positioning System
NAAQS	National Ambient Air Quality Standards
NCA	National Cemetery Administration
NDIS	Natural Diversity Information System
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
ROW	Right-of-way
SHPO	State Historic Preservation Officer
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
UST	Underground Storage Tank
VA	U.S. Department of Veterans Affairs
VAMC	Veterans Affairs Medical Center
VANBEC	VA National Energy Business Center

1.0 Purpose and Need for the Proposed Action

1.1 Background

The Department of Veterans Affairs (VA), a Federal agency, currently operates the Manhattan Campus of the VA NY Harbor Healthcare System (hereinafter referred to as "Manhattan VAMC" or "Campus"). It is located at 423 East 23rd Street, in New York City, NY 10010.

In 2005, the Energy Policy Act was passed by Congress. Section 203 of this Act requires that, of the total amount of electric energy the Federal government consumes during any fiscal year (FY), specific amounts shall be from renewable energy sources. Renewable energy sources include wind, solar, geothermal, and other sustainable methods.

Section 203 of the Energy Policy Act requires for FYs 2010 through 2012, not less than 5 percent of the Federal agency's consumed energy must be renewable in nature. After 2013, not less than 7.5 percent of the Federal agency's consumed energy must be renewable in nature. The Secretary of Veterans Affairs has established a goal of 15% renewable by 2013. In addition, the Act specifies: "For the purposes of determining compliance, the amount of renewable energy saved shall be doubled if: (a) The renewable energy is produced and used *onsite* at a Federal facility; (b) The renewable energy is produced on Federal lands and is used at a Federal facility; or (c) The renewable energy is produced on Indian land and used at a Federal facility."

In addition, Executive Order (EO) 13423, *Strengthening Environmental, Energy, and Transportation Management* (24 January 2007), sets goals for the head of each Federal agency with regard to environmental and energy management. This EO requires that Federal agencies conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner. Specifically, according to EO 13423, Federal agencies are to, among other measures: (a) improve energy efficiency and reduce greenhouse gas (GHG) emissions of the agency through a reduction of energy usage by 3 percent annually, or 30 percent in total by the end of FY15, relative to the baseline of the agency's energy use in FY03; and (b) ensure that at least half of all renewable energy required under the Energy Policy Act comes from new renewable sources (developed after January 1, 1999) and, to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use.

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (5 October, 2009), sets Federal energy requirements in several areas, including: Accountability and Transparency, Strategic Sustainability, Performance Planning, GHG Management, Sustainable Buildings and Communities, Water Efficiency, Electronic Products and Services, Fleet and Transportation Management, and Pollution Prevention and Waste Reduction. This EO states that all Federal agencies are to increase use of renewable energy and implement renewable energy generation projects on Federal property.

The VA is required to meet the renewable energy requirements of both the Energy Policy Act and the EOs. The VAMC is currently soliciting for design/build services for the solar PV roof mounted renewable energy system to be installed on the roof of building #2.

1.2 Purpose and Need

The purpose of the Proposed Action is to install and operate additional renewable energy sources, specifically a Combined Heat and Power system (CHP) at the Manhattan Campus.

Various government policies have come into effect in recent years requiring Federal agencies to use renewable energy sources for their facilities. The proposed PV systems would provide a source of onsite renewable energy for the VAMC. This would allow the VA to advance achievement of the goals set forth by EOs 13423 and 13514, as well as the Energy Policy Act of 2005. As such, the Proposed Action is needed to assist the VA in complying with identified EOs and the Energy Policy Act of 2005.

Figure 1-1: Manhattan VAMC

1.3 Environmental Assessment Process

This Environmental Assessment (EA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with the VA's proposed installation and operation of a CHP system at the VAMC.

The VA, as a Federal agency, is required to incorporate environmental considerations into their decision-making process for the actions they propose to undertake. This is done in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq*., the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*).

In accordance with the above regulations, the VA has prepared this EA. This EA allows for public input into the Federal decision-making process; provides Federal decision-makers with an understanding of potential environmental effects of their decisions, before making these decisions; and documents the NEPA process.

Ultimately, the VA will decide, in part based on the analysis presented in this EA and after having taken potential environmental, cultural, and socioeconomic effects into account, whether the VA should

implement the Proposed Action, under what Alternative, and, as appropriate, carry out mitigation measures to reduce effects on the environment.

1.4 Public Involvement and Agency Coordination

The VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, the VA's policy for implementing the NEPA. Additional guidance is provided in the VA's Environmental Compliance Manual (VA 1998).

Consideration of the views and information of all interested persons promotes open communication and enables better Federal decision-making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, including federally recognized Native American tribes and minority, low-income, and disadvantaged persons, are urged to participate. A record of public involvement and agency coordination associated with this EA is provided in Appendix A.

1.4.1 Public Review

The VA, as the Federal proponent of the Proposed Action, will publish and distribute the Draft EA for a 30-day public comment period, as announced by a Notice of Availability (NOA) published in a local newspaper of general circulation. Review copies will also be made available at the VAMC. Based on comments received from the public review of the Draft EA, the VA will respond to provided substantive comments within the Final EA and will issue a Finding of No Significant Impact (FONSI), if appropriate.

Should substantive public comments be provided, the VA will consider these comments carefully, address these comments, and determine whether or not a Finding of No Significant Impact (FONSI) is the appropriate NEPA decision document, per the specified regulations.

1.4.2 Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding Federal Proposed Actions. CEQ Regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts.

Through the IICEP process, the VA notifies relevant Federal, State, and local agencies and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the EA. This coordination fulfills requirements under EO 12372 (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider State and local views in implementing a Federal proposal. It also constitutes the IICEP process for this EA.

Agencies consulted for this EA include: the US Fish and Wildlife Service (USFWS), NY State of Park, Recreation and Historic Preservation, and the NY Natural Heritage Program. Copies of relevant correspondence can be found in Appendix A.

- The U.S. Fish and Wildlife Service on-line Project Review was completed and it concluded that the project would not adversely affect endangered species. This information is included in Appendix A.

- The NY Natural Heritage Program was contacted and they stated that no endangered species would likely be present.

- The New York State Office of Parks, Recreation and Historic Preservation were contacted to comply with the National Historic Preservation Act of 1966. They have provided a response that "no historic properties will be affected by this undertaking".

Data contained in these responses have been included within this EA in Appendix A.

1.4.3 Native American Consultation

Under NEPA, the National Historic Preservation Act (NHPA), and the Native American Graves and Protection and Repatriation Act (NAGPRA), the VA must decide whether the proposed action may affect tribes and whether a consultation with federally recognized Native American tribes would be required under the NEPA. There are no Indian Tribes listed for New York County, New York (USHUD, 2014). Therefore, no Section 106 Consultation with Indian Tribes is required.

1.5 Statutes and Regulations

This EA has been prepared under the provisions of, and in accordance with the NEPA, the CEQ Regulations Implementing the Procedural Provisions of NEPA, and 38 CFR Part 26. In addition, the EA has been prepared as prescribed in the VA's Environmental Compliance Manual (VA 1998). Federal, State, and local laws and regulations specifically applicable to this Proposed Action are specified, where appropriate, within this EA, and include: Migratory Bird Treaty Act (MBTA; 16 USC 703-712, 3 July 1918; as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989)

- Federal Clean Air Act (CAA) of 1990 (42 USC 7401 *et seq.*, as amended)
- Endangered Species Act (ESA) of 1973, as amended (7 USC 136; 16 USC 1531 *et seq.)*
- National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR Part 800 *et seq.)*
- Federal Water Pollution Control Act, or Federal Clean Water Act (CWA), of 1972, as amended; Sections 401 and 404

- New York State Department of Environmental Conservation

- New York Natural Heritage Program – Section 7 Information Request

2.0 Description of the Proposed Action and Alternatives

2.1 Introduction

This Section provides the reader with necessary information on the Proposed Action and its alternatives, including those the VA initially considered, but eliminated, as well as reasons for eliminating them. The screening criteria and process developed and applied by the VA to hone the number of reasonable alternatives are described, providing the reader with an understanding of the VA's rationale in ultimately retaining for analysis a finite number of reasonable alternatives that meet the VA's purpose of and need for the Proposed Action.

2.2 Proposed Action

The VA's Proposed Action is to install and operate a CHP system at the Manhattan VA Medical Center (VAMC) in New York City, NY. This would provide electricity and hot water to the VAMC, which operates 24 hours a day, 365 days a year. Figure 2-1 is an aerial photo of the Manhattan Campus.

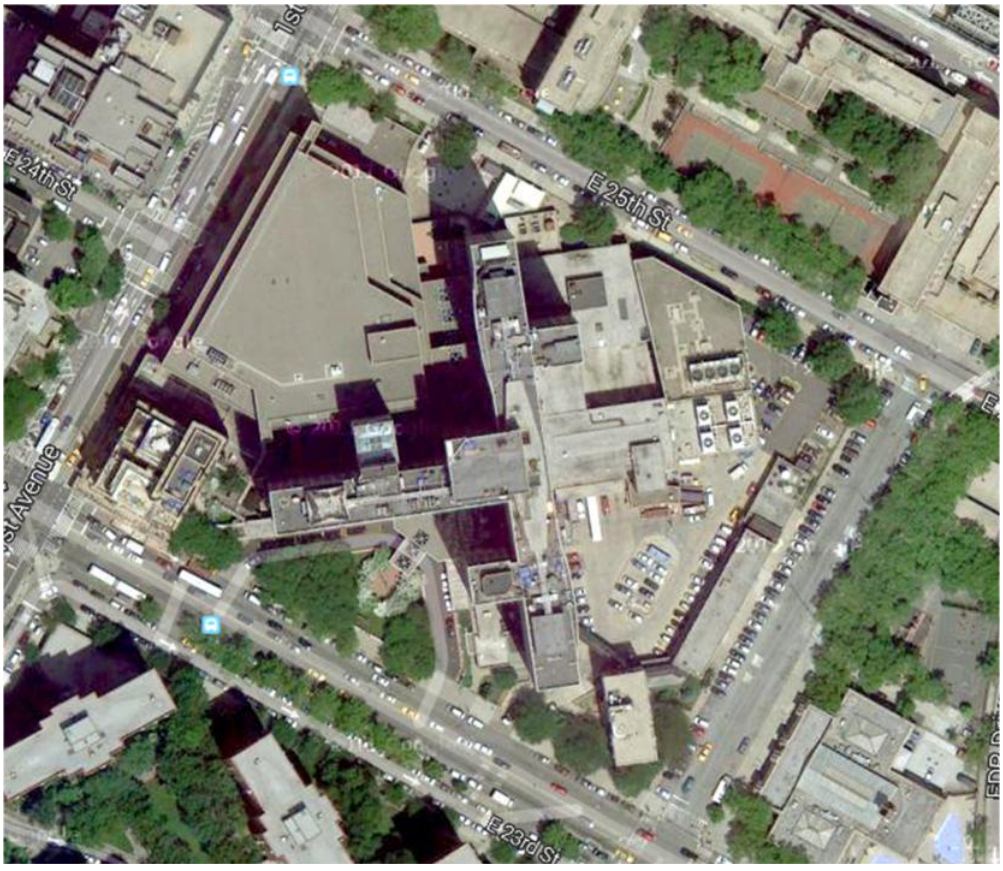

Figure 2-1: Manhattan VAMC Facility Aerial View

The Manhattan Campus is approximately 2 city blocks in its footprint. There are six buildings on the campus with a total of 1.1 million square feet. The buildings were constructed between 1954 and 1992.

The Main Medical Center is an 18 story building. The main hospital and several other buildings operate around the clock.

To determine the best locations for the Proposed Action, the VA conducted a Combined Heat and Power Feasibility Study in October 2014. According to this study, three CHP systems were evaluated and one was chosen as the preferred alternative. The preferred alternative CHP system is viable and would be installed in the mechanical room located on the 7th floor of the Outpatient Clinic (Bldg.6). The fresh air intake and the exhaust discharge will be through the roof directly above the Mechanical Room.

This CHP will provide about 5% of the site's electricity and 2.7% of the site's thermal load.

Prior to construction, the VA would obtain all required permits for the Proposed Action from appropriate government authorities, including required building and NPDES permits, if necessary. The VA would also work with utility providers to appropriately coordinate and connect this project to the existing electrical and hot water infrastructure. The proposed CHP system installation would be coordinated with current and future proposed construction on the property.

Final design and installation of the CHP system would take approximately 26 to 32 months to finalize the design, install the CHP System and commence generation.

Based on current data, the VA does not anticipate an interruption to the existing electrical service during installation of the proposed CHP system. However, if a short service outage is required during installation, the VA would coordinate and schedule this outage with Source Power and onsite operations to avoid conflicts; critical Hospital operations are continuously supported with onsite electrical backup generators.

The VA anticipates that the CHP system would be operated over a period of approximately 25 years, including routine maintenance activities.

2.3 Alternatives Considered

The NEPA, CEQ Regulations, and 38 CFR Part 26 require that all reasonable alternatives to be rigorously explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified along with a brief discussion of the reasons for eliminating them. For purposes of analysis, an alternative was considered "reasonable" only if it would enable the VA to accomplish the primary mission of providing a renewable energy source at the VAMC that meets the purpose of and need for the Proposed Action. "Unreasonable" alternatives would not enable the VA to meet the purpose of and need for the Proposed Action.

2.3.1 Alternatives Development (Screening Criteria)

The VA undertook a sequential planning and screening process, seeking viable alternatives for the Proposed Action. This process is summarized below:

As part of a broad initiative by the VA to assess the potential for installation of renewable energy systems at VA properties across the US to meet the requirements of the Energy Policy Act of 2005 and EOs 13423 and 13514, the VA identified the Manhattan VAMC as a viable candidate for Solar PV system and CHP system.

A Solar PV Feasibility was conducted and an Environmental Assessment was prepared for a roof-mounted Solar PV panels system. The VAMC is currently soliciting for design/build services for the solar PV roof mounted renewable energy system to be installed on the roof of building #2.

The VA also conducted a CHP Feasibility Study at each selected VA site, including the Manhattan VAMC. As part of the Feasibility Study, the VA identified site-specific CHP system issues, constraints, opportunities, and options. This study identified and applied site-specific screening criteria to hone the number of reasonable onsite locations (see *screening criteria*, below).

The following provides additional description of the VA's *screening criteria*:

Structural Support: The structure proposed for a roof-top mounting location should be able to support the weight of a CHP system.

Operation of the Facility**:** The CHP system should not interfere with the current or future proposed operations of the VAMC, including transportation, parking, infrastructure, and maintenance activities or sites. In addition, the proposed CHP locations should not conflict with proposed future site development plans or projects.

Solar Exposure: In order to maximize potential energy output from each CHP system, each system should be located to maximize the amount of sunlight it receives daily, including no shading from adjacent structures or trees.

Light and Glare: The potential for light and glare affects to surrounding properties and land uses should be minimized through the sensitive location of the systems.

Accessibility: The CHP location should be readily accessible for construction and maintenance purposes.

Environmental: The location must have few environmental concerns, such as water resources, cultural or biological concerns, or other regulated environmental resource. The site should also be level to facilitate CHP system installation.

An initial CHP Feasibility Report conducted in October 2014 identified 3 CHP options for the Manhattan Campus. The proposed action (Option 1) was chosen because it has the best economics, shortest payback period and is able to be installed into the 7th floor Mechanical Room.

2.3.2 Evaluated Alternatives

Two alternatives are evaluated in this EA: 1) implementation of the Proposed Action (the installation, hookup and operation of CHP system in Building 6, which is the Preferred Action Alternative; and 2) the No Action Alternative.

Preferred Action Alternative

Under the Preferred Action Alternative, the VA would install and operate a CHP system as illustrated in Figure 2-2. This proposed Kraft 150 skid mounted unit is a 228 maximum BHP engine powering an electric generator.

This CHP system would produce approximately 1,184 MWh of electricity annually and 3,668 MMBtu heat energy annually. The system will generate about 5% of the sites electricity and 2.7% of the sites thermal energy requirement.

Because of the size constraints at this VAMC the only options considered are packaged systems that are pre-engineered, compact units capable of generating electricity as well as hot water or low pressure steam.

Figure 2-2: Kraft 150 kW CHP Unit

The proposed Kraft 150 kW has the highest CHP efficiency of the units evaluated in the feasibility analysis. It uses an automotive-derivative natural gas engine driving a synchronous permanent magnet generator capable of generating 150 kW of power at a range of output voltages.

The electricity produced will be delivered into the motor control center in Building 6. The hot water produced will be delivered into hot water coils in the existing air handling units and other equipment to serve preheat and reheat loads and possibly some radiant heating or domestic hot water loads. Figure 2-3 is a picture of a portion of the mechanical room.

The enclosed unit is about 13 feet long, 6 feet wide and 8.5 feet high. It will be contained in a sound enclosure. The vendor has stated that the unit can be separated into 3 components that can be delivered to the 7th floor mechanical room using the local elevators. The final design will determine the best

installation site. If the design shows that CHP cannot be installed in the 7th floor Machine room it will be installed on the roof of the Building 6.

Figure 2-3: Mechanical Room Location for CHP System

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented. Except for the electric provided by the Building 2 Solar PV panels, the VAMC would continue to receive all of its electricity from Direct Energy. No additional renewable PV energy sources would be installed on the property. The VAMC would not, therefore, contribute to the VA's ability to meet the requirements set forth in EO 13423, EO 13514, and the Energy Policy Act of 2005.

While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative was retained to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under the CEQ Regulations (40 CFR 1502.14). The No Action Alternative reflects the *status quo* and serves as a benchmark against which the effects of the Proposed Action can be evaluated.

2.3.3 Alternatives Eliminated From Detailed Consideration

As described in Section 2.3.1, the VA eliminated some on the alternative renewable energy systems for the Site. Once a CHP system was considered potentially viable, the VA evaluated possible on-site CHP

systems and locations through the screening process. Each of the initially considered locations, with the exception of the locations retained for further analysis, failed to meet one or more of the required screening criteria. As such, these other alternatives were eliminated from further consideration. This included eliminating buildings or areas that could not provide for adequate areas for the installation of the CHP System.

Based on these criteria, all areas, except Building 6, were eliminated. While the roof of Building 6 is a possible location for a CHP system, the increased cost to rig a CHP unit onto the roof would negatively impact the economics of this option.

3.0 Affected Environment

3.1 Introduction

This Section describes the baseline (existing) environmental, cultural, and socioeconomic conditions at the Manhattan Campus and its general vicinity, with emphasis on those resources potentially impacted by the Proposed Action. Sections 4.0 and 5.0 describe the potential direct, indirect, and cumulative effects of implementing each of the considered alternatives on this environment.

3.1.1 Aesthetics

The VAMC is located in the lower Eastside of Manhattan. The campus was originally constructed in 1955 and consists of 6 buildings. The main hospital building is 18 stories tall. It is located in a major metropolitan area and occupies 2 city blocks. The entrance is located on East 23rd Street. The Emergency Room entrance is on 1st Avenue.

New York City experiences a humid subtropical climate and is thus the northernmost major city on the North American continent with this categorization. The area averages 234 days with at least some sunshine annually. Prevailing winds are from the southwest from New Jersey and Pennsylvania.

The daily mean temperature in January, the area's coldest month, is 32.6 °F (0.3 °C); however, temperatures usually drop to 10 °F (−12 °C) several times per winter, and reach 50 °F (10 °C) several days each winter months; spring and autumn are unpredictable and can range from chilly to warm, although they are usually mild with low humidity. Summers are typically warm to hot and humid, with a daily mean temperature of 76.5 °F (24.7 °C) in July and an average humidity level of 72%. Nighttime conditions are often exacerbated by the urban heat island phenomenon, while daytime temperatures exceed 90 °F (32 °C) on average of 17 days each summer and in some years exceed 100 °F (38 °C). Extreme temperatures have ranged from −15 °F (−26 °C), recorded on February 9, 1934, up to 106 °F (41 °C) on July 9, 1936.

The city receives 49.9 inches (1,270 mm) of precipitation annually, which is fairly spread throughout the year. Average winter snowfall between 1981 and 2010 has been 25.8 inches (66 cm), but this varies considerably from year to year. Hurricanes and tropical storms are rare in the New York area, but are not unheard of and always have the potential to strike the area. Hurricane Sandy brought a destructive storm surge to New York City on the evening of October 29, 2012, flooding numerous streets, tunnels, and subway lines in Lower Manhattan and other areas of the city and cutting off electricity in many parts of the city and its suburbs. The storm and its profound impacts have prompted the discussion of constructing seawalls and other coastal barriers around the shorelines of the city and the metropolitan area to minimize the risk of destructive consequences from another such event in the future. The Manhattan Campus was flooded by this storm and was closed for several months. A flood wall system is being considered by the VA.

3.1.2 Air Quality

<u>Ambient Air Quality</u>

The ambient air quality in an area can be characterized in terms of whether or not it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act, as amended (CAA and CAAA) requires the USEPA to set NAAQS for pollutants considered harmful to

public health and the environment. NAAQS are provided for the following principal pollutants, called "criteria pollutants" (as listed under Section 108 of the CAA):

Carbon monoxide (CO)
Lead (Pb)
Nitrogen oxides (NO_x)
Ozone (O_3)
Particulate matter (PM), divided into two size classes:
- Aerodynamic size less than or equal to 10 micrometers (PM_{10})
- Aerodynamic size less than or equal to 2.5 micrometers ($PM_{2.5}$)

Sulfur dioxide (SO_2)

Areas are designated by the USEPA as "attainment", "non-attainment", "maintenance", or "unclassified" with respect to the NAAQS. Regions in compliance with the standards are designated as "attainment" areas. In areas where the applicable NAAQS are not being met, a "non-attainment" status is designated. Areas that have been classified as "non-attainment" but are now in compliance can be re-designated "maintenance" status if the state completes an air quality planning process for the area. Areas for which no monitoring data is available are designated as "unclassified", and are by default considered to be in attainment of the NAAQS.

The Manhattan VAMC is located in a non-attainment area for Ozone, 2008 Standard, and a nonattainment area for PM-2.5, 2006 Standard, by the EPA Green Book.21. The non-attainment for ozone is classified as "marginal".

The emissions threshold for major facilities located in PM non-attainment areas is 100 tpy; the project alternatives considered for the VAMC are well below this threshold, so they would not be considered a major source for PM-2.5.

In New York, a fossil-fuel fired stationary source located in the New York City metropolitan area is classified as a "*Major stationary source or major source or major facility"* if it has the potential to emit 25 tpy or more of NOx or VOC". 22 For major sources, Reasonably Available Control Technology (RACT) must be used to reduce emissions below the emissions limit. The proposed action under consideration is well below this threshold, and would be classified as an area source.

Table 3-1 shows the calculated emissions for the preferred alternative. The preferred alternative would result in a direct increase of on-site emissions, since the CHP systems would be offsetting steam purchases from the utility.

The New York City Department of Environmental Protection (DEP) is responsible for administrating the New York City Air Pollution Control Code. DEP's Clean Air Tracking System (CATS) is an online process for building owners submitting new applications or renewals for boilers, expedites registration and tracking of new boiler registrations and renewals. DEP requires boiler registration for boilers and water heaters with heat input greater than 350,000 BTU/Hr. and less than 2.8 Million BTU/Hr. Based on the typical unit rating (150kW), the Manhattan CHP unit would fall within this requirement for registration. Therefore, it would be a fairly simple online registration, as opposed to the DEP requirement for boilers/water heaters exceeding 2.8M BTU/h capacity.

Table 3-1: Annual Fuel Usage and Calculated Emissions Levels

Natural Gas Input New CHP Plant (MMBtu/yr)	12,564
NO_X (ton/yr)	0.54
SO_2 (ton/yr)	0.00
CO (ton/yr)	3.27
VOC (ton/yr)	0.19
PM_{Total} (ton/yr)	0.06

Preferred Alternative: The reciprocating engine, rated at 228 maximum BHP, and located in a marginal non-attainment area for ozone, falls under the classification for a small stationary internal combustion engine (a stationary internal combustion engine with a maximum mechanical output rating of less than 200 brake horsepower in any severe ozone nonattainment area and less than 400 brake horsepower in the remainder of the State). Under this definition, there are no actual emission limits associated with the project, only tune up and recordkeeping requirements.

A facility that falls below the 25 tpy threshold for NOx and VOCs would be classified as an "area source," provided that the actual annual emissions from the facility are less than 50% of the major facility threshold for any regulated air pollutant. This type of area source is eligible under §201-4.5 to apply for a federally-enforceable emissions cap by rule; alternatively, the facility can apply for a state facility permit under Subpart 201-5.

In addition to these specific requirements, emissions associated with the CHP project must be factored in to the facility-wide emissions. It assumed that the NYSDEC will not impose any additional control equipment on the facility. However, it must be noted that a project of this nature will trigger a State Environmental Quality Review (SEQR) impact assessment. A new source review analysis will need to be completed, to include a review of emissions from the existing facility in comparison to the new source.

Sensitive Receptors

Sensitive air quality receptors in the vicinity of the site include areas to the north that are occupied by the Hunter College Medical facility and Bellevue Hospital, and on the east side by the Levy Recreation Center, the East River and the FDR Drive Highway. Peter Cooper Apartment Complex is on the south side and several apartment and office buildings and NYU Dental School is to the west side of the campus. Apartment buildings, restaurants, cafes, and retails shops are interspaced with these major facilities.

3.1.3 Cultural Resources

Cultural resources are the physical evidence of our heritage. Cultural resources are: historic properties as defined in the National Historic Preservation Act (NHPA), cultural items as defined in the Native American Graves Protection and Repatriation Act (NAGPRA), archeological resources as defined in the Archaeological Resources Protection Act (ARPA), sacred sites as defined in EO 13007 to which access is provided under the American Indian Religious Freedom Act (AIRFA), and collections as defined in 36 CFR 79, *Curation of Federally Owned and Administered Collections*. Requirements set forth in NEPA, NHPA, ARPA, NAGPRA, AIRFA, 36 CFR 79, EO 13007, and Presidential Memorandum on

Government-to-Government Relations with Native American Tribal Governments define the basis of the VA's compliance responsibilities for management of cultural resources. Regulations applicable to the VA's management of cultural resources include those promulgated by the Advisory Council on Historic Preservation (ACHP) and the National Park Service (NPS).

Architectural and Archaeological Resources

No historic architectural resources, historic (or current) structures, or other historic or precultural resources (i.e. "historic properties") are located on the site.

One historic property was identified within the immediate vicinity of the Campus. It is the Asser Levy Recreation Center that is located adjacent to the SE Corner of the Campus. There are no historic properties on the VAMC campus. The NY state SHPO office has responded to an inquiry and they have determined that "no historic property will be affected" by the Preferred Action.

Native American Consultation/Coordination

The VA maintains a VA Cultural Resource Management Checklist, dated December 2009. The checklist was developed by the VA to determine the likelihood that a given cultural resource legal requirement applies to a proposed project or other activity. Based on judicial interpretation, the American Indian Religious Freedom Act (AIRFA) requires the federal agency to consult with Indian tribes and Native Hawaiian groups about agency actions that might interfere with religious practices and to make efforts to avoid or minimize such interference (Religious Freedom Restoration Act, Executive Order 13007). According to the VA Cultural Resource Management Checklist, if the ground surface will not be disturbed as part of the Proposed Action, consultation under NAGPRA and Section 106 of NHPA with tribes is not necessary as long as the project does not interfere with tribal practices.

There are no Indian Tribes listed for New York County, New York (USHUD, 2014). Therefore, no Section 106 Consultation with Indian Tribes is required.

Environmental Justice

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued to focus attention of Federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed. In order to provide a thorough environmental justice evaluation, this socioeconomics' presentation gives particular attention to the distribution of race and poverty status in areas potentially affected by implementation of the Proposed Action. For purposes of this analysis, minority and low-income populations are defined as:

Minority Populations: Persons of Hispanic origin of any race, African Americans, American Indians, Eskimos, Aleuts, Asians, or Pacific Islanders.

Low-Income Populations: Persons living below the poverty level, based on a total annual income of $12,674 for a family of four persons as reported in the 2000 census.

As noted above, the VAMC is not located in an area with a disproportionate concentration of minority citizens. In addition, no concentrations of low-income citizens, such as low-income housing facilities or missions, are located in the vicinity of the Site.

3.1.4 Transportation and Parking

Access to the VAMC is provided by 1st Ave. to the west, E. 25th Street to the North and E. 23rd Street to the south and the FDR Drive to the East. See Figure 3-1. The Manhattan VAMC does not provide any parking facilities. All parking is done on public streets or in parking lots or garages in the surrounding neighborhood.

3.1.5 Vegetation and Wildlife

No fragments of the original natural vegetation communities are present within the boundaries of the VAMC. The VAMC is a developed, urban setting that supports only small typical ornamental landscaping and a maintained lawn. Overall, vegetation on the site has been heavily disturbed due to prior development and maintenance activities.

Migratory birds occurring on the VAMC and in its vicinity are protected under the Migratory Bird Treaty Act (16 USC 703-712, 3 July 1918; as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989). This Act prohibits the taking of migratory birds, their nests, and eggs. Migratory birds are not likely to be found nesting on the VAMC, as well as flying over the property.

Threatened and Endangered Species

As part of the preparation of this EA, the USFWS and various State natural resources' agencies were contacted to identify any potential for presence of State or federally listed species on or in the vicinity of the VAMC. The following provides a summary of the information provided by these agencies (please see Appendix A for these agencies' complete responses):

- The U.S. Fish and Wildlife Service on-line Project Review was completed and it concluded that the project would not adversely affect endangered species. This information is included in Appendix A.

- The NY Natural Heritage Program was contacted and they stated that no endangered species would likely be present

- Federal threatened and endangered species identified on the list for New York County include the Bald Eagle (delisted since 2007). The site has been heavily disturbed by its development and no fragments of the original natural vegetation communities remain. As such habitat values are low; no suitable habitat is present for the identified threatened and endangered species.

There are no natural areas or protected species in the vicinity of the site.

3.2 Summary

The Region of Influence (ROI) for this EA is relatively small and includes the approximately two city blocks that are occupied by the VAMC and the immediately surrounding properties. The area is relatively flat, and the Proposed Action components would not be substantially visible or noticeable from greater distances. The majority of structures in the vicinity of the VAMC are multi-story, including the medical campuses located to the north and west of the site, and the multi-family apartment complexes located to the west, and south of the site. Overall, the area is highly developed and generally institutional and commercial in nature; the Proposed Action would be consistent with existing area development.

Resource information for this EA was obtained through the review of existing environmental documents for the VAMC, the PV Feasibility Study, and data provided through the IICEP process, as well as the conduct of a one-day onsite visit in March 11, 2015. For the purposes of this EA, no in-depth studies or detailed field investigations were conducted onsite to determine the extent of resources.

3.3 Resources Analyzed

In compliance with the NEPA and CEQ Regulations, the evaluation of environmental consequences of the Proposed Action alternatives in this EA focuses on those resources and conditions potentially subject to effects. The VA, as encouraged by the CEQ Regulations, endeavors to keep NEPA analyses as concise and focused as possible. This is in accord with CEQ Regulations at 40 CFR Part 1500.1(b) and 1500.4(b): "…NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail….prepare analytic rather than encyclopedic analyses."

4.0 Environmental Consequences

4.1 Impact Analysis

This Section analyzes the potential direct and indirect impacts of implementing the Preferred Action Alternative and the No Action Alternative, to the environmental, cultural, and socioeconomic conditions described in Section 3.0; cumulative impacts are discussed in Section 5.0. Section 4.0 also identifies Best Management Practices (BMPs) that would reduce the level of identified adverse impacts, as appropriate. Where appropriate, pertinent regulatory (permitting) requirements associated with the resource are described. Impacts are identified as either short-term; i.e.; during construction or long-term; i.e.; during the life of the Proposed Action.

4.1.1 Significance Criteria

In this EA, impacts are identified as either significant, less than significant; i.e.; common impacts that would not be of the context or intensity to be considered significant under the NEPA or CEQ Regulations), or no impact. As used in this EA, the terms "effects" and "impacts" are synonymous. Where appropriate and clearly discernable, each impact is identified as either adverse or positive.

The CEQ Regulations specify that in determining the significance of effects, consideration must be given to both "*context*" and "*intensity*" (40 CFR 1508.27):

- Context refers to the significance of an effect to society as a whole (human and national), to an affected region, to affected interests, or to just the locality. In other words, the context measures how far the effect would be "felt."

- Intensity refers to the magnitude or severity of the effect, whether it is beneficial or adverse. In other words, intensity refers to the "punch strength" of the effect within the context involved.

In this EA, the significance of potential direct, indirect, and cumulative effects have been determined through a systematic evaluation of each considered alternative in terms of its effects on each individual environmental resource component.

4.1.2 Impact Analysis and Significance Criteria

This Impact Analysis first defines Significance Criteria for each potential impact, and then compares potential impact(s) to these criteria. Where potentially significant impacts are identified, Best Management Practices (BMPs) and other mitigation measures are proposed to reduce potential impacts to below significant levels.

4.2 Aesthetics and Visual Impacts

A significant impact on aesthetic and visual resources would result if any of the following were to occur from the construction or operation of the proposed action:

- Visual changes in the landscape that can be seen from locations with special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized through legislation or some other official declaration; and/or

- Visual interruption that would dominate a unique view shed or scenic view.

4.2.1 Geology, Soils, and Ground Water

A significant impact on geological, soil, or ground water resources would result if any of the following were to occur from the construction or operation of the proposed action:

- State or Federally designated areas of geological importance or significance are lost or made inaccessible for future use;
- Increases in the probability or magnitude of mass geological movement; e.g.; slope failures, slumps and rock falls);
- Soil loss or accelerated erosion due to a disturbance that results in sediment deposition down gradient to the extent that existing uses cannot be maintained;
- Loss of soils that uniquely support threatened or endangered plant species; and/or
- Degradation of ground water quality to the point that State or Federal water quality standards are exceeded.

4.2.2 Land Use

A significant impact on land use would result if any of the following were to occur from the construction or operation of the proposed action:

- Conflict with applicable land use plans, policies, goals or regulations; and/or
- Compaction of soils that would result in long-term loss of productivity.

4.2.3 Surface Water Resources

A significant impact on surface water resources would result if any the following were to occur from the construction or operation of the proposed action:

- Modification of a designated floodplain that would adversely affect the capacity of the floodplain would also adversely affect the pattern or the magnitude of flood flows, or impede or redirect flood flows that may result in property damage on- or off-site.

4.2.4 Water Quality

A significant impact on water quality would result if any the following were to occur from the construction or operation of the proposed action:

- Degradation of ground water quality to the point that State or Federal water quality standards are exceeded;
- Contamination of surface water from erosion or stormwater runoff that would result in a violation of Federal and/or State water quality standards; and/or
- Degradation of surface water quality to the point that the Clean Water Act (CWA) would be violated or other applicable surface water regulations, including State-established standards for designated uses.

4.2.5 Vegetation and Wildlife

A significant impact on vegetation and wildlife would result if any of the following were to occur as a direct result of the proposed action:

- Loss of rare plants or native plant communities identified by a State or Federal resource agency;
- Loss to any population of plants or wildlife that would result in a species being listed or proposed for listing as threatened or endangered by a State or Federal agency;
- Introduce and/or increase the spread of noxious weeds;
- Violate any State or Federal statutes and regulations pertaining to fisheries, wildlife, or special status species;
- Introduce constituents in any water body in concentrations that exceed State and Federal discharge limits for water quality or quantity;
- Compromise a State or Federal listed species' recovery;
- Loss of individuals of a population of a species that would result in a negative change in species status;
- Unmitigated drainage or dewatering of or discharge of dredged or fill material into jurisdictional Waters of the United States under Section 404 of the CWA or in violation of a Section 404 permit or applicable State wetland regulations; and/or
- Indirect loss of wetland or riparian ecological function caused by degradation of water quality, diversion of water sources, or erosion and sedimentation resulting from altered drainage patterns.

4.2.6 Air Quality

A significant impact on air quality would result if any of the following were to occur as a direct result of the proposed action:

- Predicted concentrations of Criteria Air Pollutants would exceed State and/or Federal ambient air quality standards; and/or
- Predicted emissions would conflict with or obstruct implementation of an applicable air quality plan.

4.2.7 Noise

A significant impact on noise would result if any of the following were to occur from the construction or operation of the proposed action:

- Exceeding local, State or Federal noise or ground-borne vibration regulations at sensitive receptors, such as residences, hospitals, or schools; and/or
- A permanent increase in ambient noise levels at the nearest sensitive receptors within the proposed action vicinity of 10 dB or more.

4.2.8 Cultural Resources

A significant impact on cultural resources would result if any of the following were to occur from the construction or operation of the proposed action:

- Significant damage to or loss of a site with archaeological, Tribal, or historical value that is listed, or eligible for listing, on the National Register of Historic Places; and/or
- Loss or degradation of a traditional cultural property or sacred site, or if the property or site is made inaccessible for future use.

4.2.9 Socioeconomics

A significant impact on socioeconomics would result if any of the following were to occur from the construction or operation of the proposed action:

- Permanent displacement of existing residences or businesses;
- Permanent and irreversible loss of work for a major sector of a community; and/or
- Long-term loss of the economic viability of a business.

4.2.10 Community Services and Utilities

A significant impact on community services and utilities would result if any of the following were to occur from the construction or operation of the proposed action:

- Interference with emergency response capabilities or resources;
- Creation of worker health hazard(s) beyond limits set by health and safety regulatory agencies or that endanger(s) human life and/or property;
- Creation of electric and magnetic fields or electrical effects; e.g.; induced currents or stray currents near an existing or proposed sensitive land use, such as schools or hospitals, which would pose a substantive risk to human health; and/or
- Creation of interference and disruption of emergency communications and electronic health/safety devices that result in substandard performance.

4.2.11 Solid/Hazardous Waste

A significant impact would result from hazardous materials use or creation of solid wastes if any of the following were to occur during the construction or operation of the proposed action:

- Improper disposal of solid or sanitary waste that would pose a threat to the public health and environment;
- Spills or releases of hazardous materials, hazardous substances, or oil in excess of reportable quantities that would pose a threat to public health and the environment; and/or
- Impairs or creates a conflict with the implementation of an existing local emergency response plan or emergency evacuation plan.

4.2.12 Transportation and Parking

A significant impact on transportation would result if any of the following were to occur from the construction or operation of the proposed action:

- Creation of road dust and/or severe road damage at levels that create hazardous situations for motorists and pedestrians;

- Changes in traffic patterns that result in hazardous situations for motorists or pedestrians; and/or
- Significant long term loss of existing parking spaces.

4.2.13 Air Navigation and Radar

A significant impact on aviation navigation and radar would result if any of the following were to occur from the construction or operation of the proposed action:

- Interference with long-range radar signals;
- Creation of an unavoidable and/or unsafe obstacle to aviation; and/or
- Interference with electronic communications; e.g.; microwave, radio, and/or television.

4.2.14 Environmental Justice

A significant impact related to environmental justice would occur from constructing and operating the proposed action if there was a disproportionate effect on minority or low-income populations in the project area.

Table 4-1 presents the Technical Resource Areas discussed in this section that are dismissed from further analysis in this EA and those that are fully analyzed. The rationale for dismissing certain Technical Resource Areas is provided in Table 4-1.

In conducting this analysis, the potential direct and indirect effects of the Proposed Action and each of its considered alternatives relative to each Technical Resource Area were reviewed. The existing conditions of each Technical Resource Area within the Proposed Action's ROI were carefully analyzed and considered. Through this analysis, it was determined that, for several Technical Resource Areas, no significant adverse effects would occur.

The environmental resource areas carried forward for further analysis of the sites included in the Preferred Action and the No Action Alternatives include: Air Quality.

Table 4-1- Resources or Attributes Not Described or Evaluated

Resource / Attribute	Rationale for Excluding from Evaluation
Aesthetics	There are no aesthetically sensitive locations within the view shed of the site. If it becomes necessary to install the CHP Unit on the roof of Building 6 it would be noticeable but would not have a negligible impact on the view shed. It is common to have equipment installed on roofs in this surrounding area.
Aviation / Radar	The CHP System would not affect flight patterns or radar communication used by aircraft.
Biological Resources (vegetation, wildlife, threatened and endangered species)	No potential adverse effects to known vegetation and wildlife resources would occur with installation of the CHP System. In addition, no threatened and endangered species are present on the site based on researching the USFWS Endangered Species List for the project area. It has been determined that there were no species present that would be affected (Appendix A). These issues are therefore not further discussed in this EA.
Community Service and	No public services, facilities, or utilities that would adversely affect the

Resource / Attribute	Rationale for Excluding from Evaluation
Utilities	community would be altered. In fact, a positive impact will be the CHP system will conservatively generate about 5 % f of the electric usage per month at the VAMC.
Cultural and Historic Resources	A literature search was conducted through the following searches: 1) The National Register of Historical Places for New York County, NY; and 2) New York State Historical Preservation Office. The Facility is not listed on the National Register of Historical Places. There is one National Register Site about adjacent to the southeast corner of the Campus. The New York State Office of Parks, Recreation and Historic Preservation were contacted and they have provided a response that "no historic properties will be affected by this undertaking" (Appendix B). There are no Indian Tribes listed for New York County, New York (USHUD, 2014). Therefore, no Section 106 Consultation with Indian Tribes is required.
Economic Activity	The overall estimated construction costs of the phased construction schedule would not substantially affect the local economy. It is anticipated that between 6-10 jobs would be created during the construction phase. Although construction workers may patronize nearby businesses, any short-term beneficial effect to the economy would be negligible.
Environmental Justice	The proposed action would not have significant adverse impacts. There are not any low income or minority populations within in the vicinity of the Manhattan VAMC Campus.
Environmental Regulations	The installation and operation of the CHP System would comply with applicable regulations.
Floodplains, Wetlands, Coastal Zones	Installation of the CHP System would not impact floodplains or wetlands.
Geology and Soils	Installation of a CHP System would not impact geology or soils.
Groundwater	Installation of a CHP System would not impact groundwater.
Land Use	The CHP System would be installed within the boundaries of Manhattan VAMC Campus. Land use would therefore not be impacted.
Noise	No long-term or permanent increase in noise levels would occur. Only short term de minimis noise effects would occur due to construction equipment. These effects would be controlled through existing VA construction BMPs. The CHP system will be installed in noise reduction container.
Potential for Creating Substantial Controversy	Use of renewable energy sources is generally viewed by the public as favorable. The installation of CHP System would not likely create any negative controversy for the VA. There have been no protests to the previous installations at the VAMC.
Real Property	The CHP System would be within the boundaries of the Manhattan VAMC Campus; therefore, no change in land ownership, boundaries, or tax values would occur.
Resident Population	The operation and maintenance of the CHP System would not increase or affect the workforce at the Facility.
Surface Water Resources and Water Quality	There are no surface waters within the Manhattan VMAC campus. Installation of a CHP System would therefore not impact surface water resources and water quality.
Solid/Hazardous Waste	Construction of the CHP System would generate some limited amount of solid waste which would be either recycled or disposed of in an approved landfill. No

Resource / Attribute	Rationale for Excluding from Evaluation
	hazardous waste would be generated by construction of the CHP System.

4.3 Air Quality

4.3.1 Effects of the Preferred Action Alternative

Under the Preferred Action the CHP system would be installed in the 7th Floor Machine room in Building 6. This Preferred Action Alternative would result in a long term positive impact by reducing the Manhattan VAMC's dependence on the local electrical grid. It is possible that the CHP System could provide about 5% of all the electricity currently used at the VAMC per month.

The Manhattan VAMC is located in a non-attainment area for Ozone, 2008 Standard, and a nonattainment area for PM-2.5, 2006 Standard, by the EPA Green Book.21. The non-attainment for ozone is classified as "marginal."

The emissions threshold for major facilities located in PM non-attainment areas is 100 tpy; project alternatives considered for the VAMC are well below this threshold, so they are not considered to be a major source for PM-2.5.

In New York, a fossil-fuel fired stationary source located in the New York metropolitan area is classified as a "*Major stationary source or major source or major facility"* if it has the potential to emit 25 tpy or more of NOx or VOC". 22 For major sources, Reasonably Available Control Technology (RACT) must be used to reduce emissions below the emissions limit. The proposed action under consideration is well below this threshold, and would be classified as an area source.

GHG emissions at the Facility would be reduced by 42 metric tons per year by producing 5% of the electric demand onsite.

4.3.2 Effects of the No Action Alternative

Under the No Action Alternative, the CHP system would not be installed and there would be no impact to Campus. The VAMC would continue to rely on electricity provided by local grid would not produce the positive utilities effects of installing an onsite CHP system.

5.0 Cumulative Impacts

5.1 Key Factors in Evaluating Cumulative Effects

As defined by CEQ Regulations in 40 CFR Part 1508.7, cumulative impacts are those which "result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (Federal or non-Federal) or individual who undertakes such other actions." Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions taken during the duration of the Proposed Action in the same geographic area. Because of extensive influences of multiple forces, cumulative effects are the most difficult to analyze.

NEPA and CEQ Regulations require the analysis of cumulative environmental effects of a Proposed Action, or set of actions, on resources that may often be manifested only at the cumulative level, such as traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others.

5.2 Planned Projects in the Vicinity

The area surrounding the Manhattan VAMC is highly developed. In the vicinity of the VAMC property, lands to the east, north and west are predominantly occupied by medical campuses and medical clinics. Lands to the south and southwest are occupied by multi-story apartment complexes.

Over time, it is anticipated that further, in-fill development would occur on these nearby properties. The environment in which the VAMC is located is best characterized as urban in nature; any additional future development would likely be consistent with this character.

Several projects are in the planning stages for the VAMC over the next five years. These projects include:

- Install a flood wall on three sides of the facility;
- Renovation of the electrical switch gear;
- Basement renovation;
- Sterile processing service;
- MRI area rehab; and
- Numerous renovations in the ER, 4th floor, 9th floor, 17th floor.

Any future development within the boundaries of the VAMC would conform to local building codes, and would be consistent with existing uses within the VAMC. Proposed future Federal actions at the VAMC also would undergo future, appropriate NEPA analysis to ensure potential environmental effects are proactively identified and minimized to the extent possible.

5.3 Cumulative Impacts

The vicinity of the VAMC has been developed over the years. This development has been associated with the growth of other Medical facilities and City of New York. There is little open space in the vicinity of the VAMC.

While ongoing growth and development of this area are anticipated and this ongoing development would continue to place pressures on area infrastructure and produce impacts on the natural environment, the Proposed Action would not contribute to these cumulative impacts. The Proposed Action would not consume open space, produce additional pressures on area infrastructure, or contribute to a decline in natural or cultural resources. Due to the nature of the Proposed Action, pressures on area utility infrastructure would be decreased and a consequent reduction in area air emissions; i.e.; from electricity production) would occur. In addition, careful planning, monitoring, and communication between involved area agencies will ensure growth in the area is managed and cumulative adverse impacts are avoided.

The Proposed Action would result in the impacts identified throughout Section 4. These impacts are generally site-specific and would not contribute to cumulative adverse effects in the area or ROI. As a responsibility of the VA, future development and operation within the boundaries of the VAMC, including onsite utilities and construction, would be coordinated to ensure no conflicts occur.

Therefore, implementation of the Proposed Action is not expected to have cumulative significant adverse impact on any resource area discussed in this EA. Through implementing the BMPs identified in this EA, the VA would control and further reduce identified, less-than-significant adverse effects.

Under the No Action Alternative as described throughout Section 4, no adverse impacts would occur. However, the VAMC would continue to rely on power provided by the local utility company, Direct Energy. By not implementing the Proposed Action, ongoing levels of air emissions from electricity generation would continue. A reduction in this traditional power usage, or demand on the current electrical grid, would not occur.

6.0 Agencies and Individuals Consulted

During preparation of the Draft Environmental Assessment, the following agencies and individuals were contacted. A summary is as follows:

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7.0 List of Preparers

Martin W. Buys (B.S. Environmental Science, M.S. Environmental Science) is the Principal in Charge and Owner of B&B and served as project manager for preparation of the Environmental Assessment and overall quality assurance and quality control. He has been a business owner for the past twenty-five years, with over 39 years of experience in environmental and regulatory compliance.

Robert McDonald (B.S. Fisheries Biology, M.S. Natural Resources Administration) Technical Advisor providing direction, supervision, and technical review in the preparation and writing of this Environmental Assessment. Mr. McDonald is a Project Manager for B&B and has over 40 years of experience in preparing Environmental Impact Statements and Environmental Assessments.

Russell E. Erbes, CCM (B.S. Physics, M.S. Atmospheric Science) served as the Senior Air Quality Scientist, which included air quality impact and regulatory analysis. Mr. Erbes is a Certified Consulting Meteorologist and has over 38 years of experience in performing air quality impact analyses and preparation of Environmental Impact Statements and Assessments.

Patricia K. Buys, SPHR (Certified Senior Professional in Human Resources, M.P.A. Public Administration) served as a Writer/Editor in the preparation and finalization of the Environmental Assessment, and has over 35 years of experience with Human Resource Management and directing government-funded programs.

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United States Fish & Wildlife Service (USFWS): Information, Planning and Conservation System (IPAC); (http://ecos.fws.gov/ipac/). VA NY Harbor Healthcare System Manhattan Campus CHP System. Accessed March 2015.

Appendix A

Agency Coordination

Appendix B

Relevant Cultural Resources Data and SHPO Coordination

Appendix C

VA Environmental Assessment Summary Checklist

Appendix D

Public Notices and Comments

Appendix E

Finding of No Significant Impact (FONSI)