Final

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED SBI*net* DETROIT PROJECT GROSSE POINTE TOWER U.S. CUSTOMS AND BORDER PROTECTION U.S. BORDER PATROL DETROIT SECTOR, MICHIGAN

U.S. Department of Homeland Security
U.S. Customs & Border Protection
Office of Technology, Innovation & Acquisition
Washington, D.C.

June 2011

FINDING OF NO SIGNIFICANT IMPACT
Supplemental Environmental Assessment
For the Proposed SBI*net* Detroit Project
U.S. Border Patrol, Detroit Sector, Michigan

PROJECT HISTORY: The Secure Border Initiative (SBI) was a comprehensive, multi-year plan established by the Department of Homeland Security (DHS) in November 2005 to secure the borders of the United States (U.S.) and reduce illegal immigration. SBI was created to bring clarity of mission, effective coordination of DHS assets, and greater accountability in securing the Nation's borders. The SBI mission was to promote border security strategies that protect against and prevent terrorist attacks and other transnational crimes. Additionally, SBI coordinated DHS efforts to ensure the legal entry and exit of people and goods moving across our borders and improve the enforcement of immigration, customs, and agriculture laws at our borders and within the country.

SBI*net* was the component of SBI charged with developing and installing technology and attendant tactical infrastructure (TI) solutions to help U.S. Customs and Border Protection (CBP) gain effective control of our Nation's borders. The goal of SBI*net* was to field the most effective, proven technology and response platforms and integrate them into a single, contiguous border security system for DHS. CBP carried out the SBI*net* program to better execute this vital mission. SBI*net* no longer exists as a branch of SBI. The Office of Technology, Innovation, and Acquisition (OTIA) has assumed the responsibilities of SBI and SBI*net*.

CBP implements the National Border Patrol Strategy with the goal of establishing and maintaining effective operational control of the borders. The U.S. Border Patrol (USBP) maximizes border security with an appropriate balance of personnel, technology, and infrastructure. Effective operational control exists when CBP is consistently able to: (1) detect illegal entries into the United States when they occur; (2) identify the entry and classify its level of threat; (3) efficiently and effectively respond to these entries; and, (4) bring each event to an appropriate law enforcement resolution.

This Supplemental Environmental Assessment (SEA) supplements the August 2009 *Environmental Assessment (EA) for the Proposed SBInet Detroit Project, U.S. Border Patrol, Detroit Sector, Michigan* (CBP 2009a). The final 2009 EA addressed the potential direct and indirect effects of the proposed construction, installation, operation, and maintenance of a system of six monopole towers and four equipment installations on existing structures and construction of access roads. In November 2009, an SEA was also previously prepared for this project, proposing the construction, operation, and maintenance of three additional towers along the St. Clair River (CBP 2009b).

The one monopole tower proposed for construction in this SEA would enhance the surveillance capabilities and extend the geographic scope of the SBI*net* Detroit Project to cover the entire United States coastline of Lake St. Clair.

PROJECT LOCATION: The affected area for this SEA covers the Lake St. Clair shoreline near Grosse Pointe, Grosse Pointe Farms, and Detroit, Michigan. The proposed tower is within Wayne County, Michigan.

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PURPOSE AND NEED: The purpose of the proposed project is to improve CBP's efficiency and probability of detection, identification, and apprehension of cross-border violators (CBVs). Achieving effective control of the borders of the U.S is a key mission of CBP. The objective of this SBI*net* project is to maximize surveillance along Lake St. Clair, which is part of the United States border in the Detroit Sector. The proposed project is needed to:

1) provide more efficient and effective means of assessing border activities;
2) provide rapid detection and accurate characterization of potential threats;
3) enable coordinated deployment of resources in the apprehension of CBVs; and
4) reduce crime in border communities and improve the quality of life and economic vitality of border regions through provision of the tools necessary for effective law enforcement.

ALTERNATIVES: Two alternatives were considered during the preparation of the SEA: the No Action Alternative and the Proposed Action Alternative, described below.

No Action Alternative: Under the No Action Alternative, the construction of the one monopole tower proposed in this SEA would not occur. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action are evaluated. While the No Action Alternative does not satisfy the stated purpose and need, its inclusion in the EA is required by NEPA regulations as a basis of comparison to the anticipated effects of the Proposed Action Alternative.

Proposed Action Alternative: The Proposed Action Alternative includes the construction, installation, and maintenance of one monopole tower at the Grosse Pointe Athletic Club in Grosse Pointe, Michigan along the shores of Lake St. Clair to extend the surveillance capabilities of the original SBI*net* Detroit Project. In general, the monopole tower would:

- be 60 feet tall;
- have a 50- by 50-foot impact footprint;
- send surveillance data to the USBP Detroit Sector via microwave or fiber-optic cable; and
- be connected to commercial electric grid power with a battery backup power system.

ENVIRONMENTAL CONSEQUENCES: Implementation of the Proposed Action Alternative would permanently disturb approximately 2,500 square feet for the construction of the tower. The proposed tower site is located in a previously disturbed, developed area. The Proposed Action Alternative would have no impacts on cultural resources with the implementation of mitigation measures. Aesthetic resources would be impacted; however, the impacts would be minor due to the previous disturbance and development (existing structures) in the area. CBP has determined that the Proposed Action Alternative would have no effect on any Federal- or state- listed threatened or endangered species.

Additionally, the Proposed Action Alternative would have temporary and minor impacts on air, roadways and traffic, and ambient noise levels during construction activities. No impacts on

floodplains would occur with implementation of the Proposed Action Alternative. Commercial grid power would not be adversely impacted as a result of the Proposed Action Alternative; however, long-term socioeconomic benefits could occur. The proposed project would result in overall beneficial impacts within the region through a reduction in border area crime.

All impacts described above would be in addition to those identified and discussed for the Proposed Action Alternative in the August 2009 final EA and the November 2009 SEA for the SBI*net* Detroit Sector Project. A total of 1.15 acre of permanent impacts are expected and the description of these impacts is incorporated by reference (CBP 2009a and 2009b).

No significant adverse effects on the natural or human environment, as defined in 40 Code of Federal Regulations (CFR) §1508.27 of the Council on Environmental Quality's Regulations for Implementing National Environmental Policy Act, are expected upon implementation of the Proposed Action Alternative.

MITIGATION: Mitigation measures are identified for each resource category that could be potentially affected. Many of these measures have been incorporated as standard operating procedures by CBP in similar past projects. Mitigation measures, including standard best management practices (BMP), are also identified in the SEA in Section 5.

Project Planning/Design Communication

The following measures were adapted from the *Interim Guidance on Siting, Construction, Operation, and Decommissioning of Communication Towers* (U.S. Fish and Wildlife Service [USFWS] 2000).

- CBP will minimize bird perching and nesting opportunities for new towers.
- CBP will not site towers in or near wetlands, other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. If this is not an option, mitigation will be required.
- CBP will not use guy wires for tower support to reduce the probability of bird and bat collisions.
- CBP will use security lighting for on-ground facilities and equipment that is down-shielded to keep light within the boundaries of the site.
- CBP will site, design, and construct towers and appurtenant elements to avoid or minimize habitat loss within and adjacent to the tower "footprint." CBP will minimize road access and fencing to reduce or prevent habitat fragmentation and disturbance, and to reduce above-ground obstacles to birds in flight.
- Where necessary and feasible, CBP will place electric power lines underground or on the surface as insulated, shielded wire to avoid electrocution of birds and bats. CBP will use recommendations of the Avian Power Line Interaction Committee (1994, 1996) for any required above-ground lines, transformers, or conductors. CBP will use raptor-protective devices on above-ground wires.

- CBP will control noxious weeds using herbicides approved by the U.S. Environmental Protection Agency.
- If rodent populations on the perimeter of the facility are to be controlled, CBP will not use rodenticides.
- Once CBP has determined that towers are no longer needed, CBP will remove them within 12 months. CBP will restore footprint of towers and associated facilities to pre-construction conditions.

Project Planning/Design – General

CBP will use disturbed areas or areas that will be used later in the construction period for staging, parking, and equipment storage.

CBP will develop and implement erosion control measures and appropriate BMPs before, during, and after soil-disturbing activities. To address areas with highly erodible soils, various erosion control techniques such as straw bales, silt fencing, aggregate materials, wetting compounds, and rehabilitation, where possible, to decrease erosion.

CBP will document any establishment of non-native plants and will implement appropriate control measures.

CBP will ensure that all construction will follow DHS Environmental Planning Management Directive 025-01 for Sustainable Practices for Environmental, Energy, and Transportation Management.

Construction contractor spill protection plans will be developed and implemented at construction and maintenance sites to ensure that any toxic substances are properly handled and that escape into the environment is prevented. Drip pans underneath equipment, containment zones used when refueling vehicles or equipment, and other measures are to be included.

CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for road construction and maintenance.

CBP security lighting at facilities will be designed to minimize light pollution beyond the designated tower footprints while achieving light levels needed for operational purposes. Because directed lighting for towers can extend ambient light levels well over 900 feet away from the source, the effects of lighting can extend beyond the immediate tower area. Security lights will not shine onto habitat areas at a level greater than 1.5 foot-candles. All security lights will be shielded from the top to prevent light disturbance outside the immediate tower area.

General Construction Activities

CBP will obtain materials such as gravel or topsoil from existing developed or previously used sources, not from undisturbed areas adjacent to the project area.

CBP will clearly demarcate the perimeter of all areas to be disturbed during construction or maintenance activities using flagging or temporary construction fence, and no disturbance outside that perimeter will be authorized.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation. CBP will minimize the number of vehicles traveling to and from the project site and the number of trips per day.

CBP water tankers that convey untreated surface water will not discard unused water within 2 miles of any aquatic or marsh habitat.

CBP storage tanks containing untreated water will be of a size that if a rainfall event were to occur, the tank (assuming open) will not be overtopped and cause a release of water into the adjacent drainages. Water storage on the project area will be in on-ground containers located on upland areas not in washes.

CBP will contain nonhazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and will reduce the amount of disturbed area needed for waste storage.

To prevent attracting predators of protected animals, CBP will dispose of all food-related trash items such as wrappers, cans, bottles, and food scraps in closed containers and remove them daily from the project site.

Waste water is water used for project purposes that is contaminated with construction materials or from cleaning equipment and that carries oils, other toxic materials, or other contaminants as defined by state regulations. CBP will store waste water in closed containers on-site until removed for disposal. Concrete wash water will not be dumped on the ground, but will be collected and moved off-site for disposal. This wash water is toxic to aquatic life.

If CBP construction or maintenance activities continue at night, all lights will be shielded to direct light only onto the work site and those areas necessary to ensure the safety and efficiency of the workers; the minimum foot-candles needed will be used, and the number of lights will be minimized. Any light extending beyond each tower construction or maintenance area will be no greater than 1.5 foot candles. CBP will minimize noise levels for day or night construction and maintenance.

Soils

Vehicular traffic associated with the tower construction activities and operational support activities will remain on established roads to the maximum extent practicable. Areas with highly erodible soils will be given special consideration when designing the proposed project towers and access roads to ensure incorporation of various erosion control techniques, such as straw bales, silt

fencing, aggregate materials, wetting compounds, and rehabilitation, where possible, to decrease erosion. Site rehabilitation will include re-vegetating or distributing organic and geological materials (i.e., boulders and rocks) over the disturbed area to reduce erosion while allowing the area to naturally vegetate. Additionally, erosion control measures and appropriate BMPs will be implemented before, during, and after construction activities, as appropriate.

Vegetation

CBP will use materials free of non-native plant seeds and other plant parts to limit potential for infestation for on-site erosion control in uninfested native habitats. Since natural materials cannot be certified as completely weed-free, if such materials are used, there will be follow-up monitoring to document establishment of non-native plants, and appropriate control measures will be implemented for a period of time to be determined in the site restoration plan.

CBP fill material brought in from outside of the project area will be identified as to source location and will be weed-free.

Wildlife Resources

The Migratory Bird Treaty Act (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting seasons (March 15 through August 31), surveys will be performed to identify active nests. If active nests are identified, avoidance and mitigation measures will be coordinated through the USFWS. Applicable permits would be obtained prior to construction or clearing activities. Another mitigation measure that would be implemented is to schedule all construction activities outside nesting seasons negating the requirement for nesting bird surveys. The proposed sensor and communication towers would also comply with USFWS guidelines for reducing fatal bird strikes on communication towers (USFWS 2000) to the greatest extent practicable. Guidelines recommend collocating new antennae arrays on existing towers whenever possible, building towers as short as possible, without guy wires or lighting, and using white strobe lights whenever lights are necessary for aviation safety.

Water Resources

Standard construction procedures will be implemented to minimize potential for erosion and sedimentation during construction. All work shall cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. All fuels, waste oils, and solvents will be collected and stored in tanks or drums within secondary containment areas consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 feet of drainages.

Cultural Resources

Proposed mitigations of potential impacts on historic properties included a limited tower height of 60 feet, a requirement that the tower be set back from the waterfront, painting the tower in accordance with the wishes of the Grosse Pointe Club representatives, and installation of a series of plantings/landscaping around the tower to help screen it from view after its construction, which would be carried out in accordance with plans developed by a landscape professional in consultation with the Grosse Pointe Club.

Air Quality

Mitigation measures will be incorporated to ensure that fugitive dust and other air quality constituent emission levels do not rise above the minimum threshold as required per 40 CFR 51.853(b)(1). Measures will include dust suppression methods to minimize airborne particulate matter created during construction activities. Additionally, all construction equipment and vehicles will be required to be maintained in good operating condition to minimize exhaust emissions.

Noise

During the construction phase, short-term noise impacts are anticipated. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. On-site activities would be restricted to daylight hours to the greatest extent practicable, although nighttime construction could occur if the construction schedule requires it. Construction equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level in and around tower construction sites.

Hazardous Materials

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill. To ensure oil pollution prevention, a Spill Prevention Control and Countermeasures Plan will be in place prior to the start of construction activities, and all personnel will be briefed on the implementation and responsibilities of this plan as is typical in CBP/OTIA projects. All spills will be reported to the designated CBP point of contact for the project. Furthermore, a spill of any petroleum liquids (e.g., fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies.

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All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures. Where handling of hazardous and regulated materials does occur, CBP will collect and store all fuels, waste oils and solvents in clearly labeled tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein.

Solid waste receptacles will be maintained at construction staging areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

Disposal of used batteries or other small quantities of hazardous waste will be handled, managed, maintained, stored, and disposed of in accordance with applicable Federal and state rules and regulations for the management, storage, and disposal of hazardous materials, hazardous waste and universal waste. Additionally, to the extent practicable, all batteries will be recycled locally.

FINDING: Based upon the analyses of the SEA and the mitigation measures to be incorporated as part of the action alternatives, it has been concluded that the proposed project will not result in any significant effects to the environment. Therefore, no further environmental impact analysis is warranted.

5-27-11

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Date

6/6/11

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FINAL

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED SBI*net* DETROIT PROJECT - GROSSE POINTE TOWER U.S. BORDER PATROL, DETROIT SECTOR, MICHIGAN

June 2011

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EXECUTIVE SUMMARY

INTRODUCTION

The Secure Border Initiative (SBI) was a comprehensive, multi-year plan established by the Department of Homeland Security (DHS) in November 2005 to secure the borders of the United States (U.S.) and reduce illegal immigration. The SBI mission was to promote border security strategies that protect against and prevent terrorist attacks and other transnational crimes. Additionally, the SBI initiative coordinated DHS efforts to ensure the legal entry and exit of people and goods moving across our borders and improve the enforcement of immigration, customs, and agriculture laws at our borders, within the country, and abroad.

SBI*net* was the component of SBI charged with developing and installing technology and attendant tactical infrastructure (TI) solutions to help U.S. Customs and Border Protection (CBP) gain effective control of our Nation's borders. SBI*net* no longer exists as a branch of SBI. The Office of Technology, Innovation, and Acquisition (OTIA) has assumed all responsibilities of SBI and SBI*net*.

CBP implements the National Border Patrol Strategy with the goal of establishing and maintaining effective control of the borders. The U.S. Border Patrol (USBP) maximizes border security with an appropriate balance of personnel, technology, and infrastructure. Effective control exists when CBP is consistently able to: (1) detect illegal entries into the United States when they occur; (2) identify the entry and classify its level of threat; (3) efficiently and effectively respond to these entries; and (4) bring each event to an appropriate law enforcement resolution.

This Supplemental Environmental Assessment (SEA) supplements the August 2009 *Environmental Assessment (EA) for the Proposed SBInet Detroit Project, U.S. Border Patrol, Detroit Sector, Michigan*. The final 2009 EA addressed the potential direct and indirect effects of the proposed construction, installation, operation, and maintenance of a system of six monopole towers and four equipment installations on existing structures and construction of access roads. In November 2009, an SEA was also previously prepared for this project, proposing the construction, operation, and maintenance of three additional towers along the St. Clair River.

The one additional monopole tower proposed for construction in this SEA would enhance the surveillance capabilities and extend the geographic scope of the SBI*net* Detroit Project to cover the entire United States coastline of Lake St. Clair, Michigan. The action proposed in this document is an addition to the existing SBI*net* Detroit Project. Therefore, the "SBI*net*" moniker will still be used to describe the existing project in this document even though the project will be managed, constructed, and operated under OTIA.

PURPOSE AND NEED

The purpose of the proposed project is to improve CBP's efficiency and probability of detection, identification, and apprehension of cross-border violators (CBVs). Achieving effective control

of the borders of the United States is a key mission of CBP. The objective of this SBI*net* project is to maximize surveillance along Lake St. Clair which is part of the United States border in the Detroit Sector.

The proposed project is needed to:

1) provide more efficient and effective means of assessing border activities;
2) provide rapid detection and accurate characterization of potential threats;
3) enable coordinated deployment of resources in the apprehension of CBVs; and
4) reduce crime in border communities and improve the quality of life and economic vitality of border regions through provision of the tools necessary for effective law enforcement.

DESCRIPTION OF PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative includes the construction, installation, and maintenance of one monopole tower at the Grosse Pointe Athletic Club in Grosse Pointe, Michigan along the shores of Lake St. Clair to extend the surveillance capabilities of the original SBI*net* Detroit Project. In general, the monopole tower would:

- be 60 feet tall;
- have a 50- by 50-foot impact footprint;
- send surveillance data to the USBP Detroit Sector via microwave or fiber-optic cable; and
- be connected to commercial electric grid power with a battery backup power system.

PROPOSED ACTION ALTERNATIVE AND ALTERNATIVES CONSIDERED

There are two alternatives analyzed: (1) the No Action Alternative and (2) the Proposed Action, which is described above.

Under the No Action Alternative, the construction of the one monopole tower proposed in this SEA would not occur. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action Alternative are evaluated.

ENVIRONMENTAL CONSEQUENCES

Implementation of the Proposed Action Alternative would permanently disturb approximately 2,500 square feet (0.06 acre) for the construction of the tower. The proposed tower site is located in a previously disturbed, developed area. The Proposed Action Alternative would have no adverse effects on cultural resources with the implementation of approved mitigation measures. Aesthetic resources would be impacted; however, the impacts would be minor due to the previous disturbance and development (existing structures) in the area. CBP has determined that the Proposed Action Alternative would have no effect on any Federal- or state-listed threatened or endangered species.

Additionally, the Proposed Action Alternative would have temporary and minor impacts on air, roadways and traffic, and ambient noise levels during construction activities. No significant impacts on floodplains would occur with implementation of the Proposed Action Alternative. Commercial grid power would not be adversely impacted as a result of the Proposed Action Alternative; however, long-term socioeconomic benefits could occur. The proposed project would result in overall beneficial impacts within the region through a reduction in border area crime.

All impacts described above would be in addition to those identified and discussed for the Proposed Action Alternative in the August 2009 final EA and the November 2009 SEA for the 13 surveillance equipment installations associated with the SBI*net* Detroit Sector Project. A total of 1.15 acres of permanent impacts are expected and the description of these impacts is incorporated by reference (CBP 2009a and 2009b).

No significant adverse effects on the natural or human environment, as defined in 40 Code of Federal Regulations (CFR) §1508.27 of the Council on Environmental Quality's Regulations for Implementing National Environmental Policy Act, are expected upon implementation of the Proposed Action Alternative.

FINDINGS AND CONCLUSIONS

Based upon the analyses of the SEA and the environmental design and mitigation measures to be implemented, the Proposed Action Alternative would not have a significant effect on the environment. Therefore, no additional environmental impact analysis is warranted.

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SECTION 1.0
BACKGROUND

1.0 BACKGROUND

1.1 INTRODUCTION

This Supplemental Environmental Assessment (SEA) supplements the August 2009 *Environmental Assessment (EA) for the Proposed SBInet Detroit Project, U.S. Border Patrol, Detroit Sector, Michigan* (United States [U.S.] Customs and Border Protection [CBP] 2009a), which analyzed the proposed U.S. Border Patrol (USBP) Detroit Sector project that would be carried out under the Secure Border Initiative (SBI) and implemented as a part of the SBI*net* program. SBI*net* was the component of SBI charged with developing and installing technology and attendant tactical infrastructure (TI) solutions to help CBP gain effective control of our Nation's borders. SBI*net* no longer exists as a branch of SBI. The Office of Technology, Innovation and Acquisition (OTIA) has assumed all responsibilities of SBI and SBI*net*.

This SEA addresses the potential direct and indirect effects, beneficial and adverse, of the proposed construction, operation, and maintenance of one additional monopole surveillance tower within the USBP's Detroit Sector, Michigan (Figure 1-1). The affected area for this SEA covers the Lake St. Clair shoreline area in Grosse Pointe, Michigan. The one monopole tower proposed for construction in this SEA would enhance the surveillance capabilities and extend the geographic scope of the SBI*net* Detroit Project to cover the entire United States coastline of Lake St. Clair. The action proposed in this document is an addition to the existing SBI*net* Detroit Project. Therefore, the "SBI*net*" moniker will still be used to describe the existing project in this document even though the project will be managed, constructed, and operated under OTIA.

Once this current SEA is completed, the SBI*net* Detroit Project would include 14 tower/equipment installation sites providing improved surveillance capabilities for the St. Clair River and Lake St. Clair border areas. The August 2009 final EA addressed the potential direct and indirect effects of the proposed construction, installation, operation, and maintenance of a system of six monopole towers and four equipment installations on existing structures and construction of access roads. The November 2009 SEA (CBP 2009b) proposed three new towers to be constructed as a supplement to the original SBI*net* Detroit Sector Project, as described in the August 2009 final EA.

This SEA was prepared in compliance with provisions of the National Environmental Policy Act (NEPA) of 1969 as amended (42 U.S. Code [U.S.C.]. 4321 *et seq.*), the Council on Environmental Quality's (CEQ) NEPA implementing regulations at 40 Code of Federal Regulations (CFR) Part 1500, and the Department of Homeland Security's (DHS) *Management Directive 023-01, Environmental Planning Program* (71 *Federal Register* [FR] 16790). Consistent with 40 CFR §1502.16, this SEA analyzes direct and indirect site-specific and cumulative environmental impacts of the SBI*net* Detroit project.

CBP has deployed technology-based solutions to assist with detection and deterrence of illegal entries along approximately 35 miles of the St. Clair River in the USBP's Detroit Sector. This project has supported CBP's mission by strengthening National security between ports of entry to prevent entry of terrorists, terrorist weapons, contraband, and cross-border violators (CBV) into the United States.

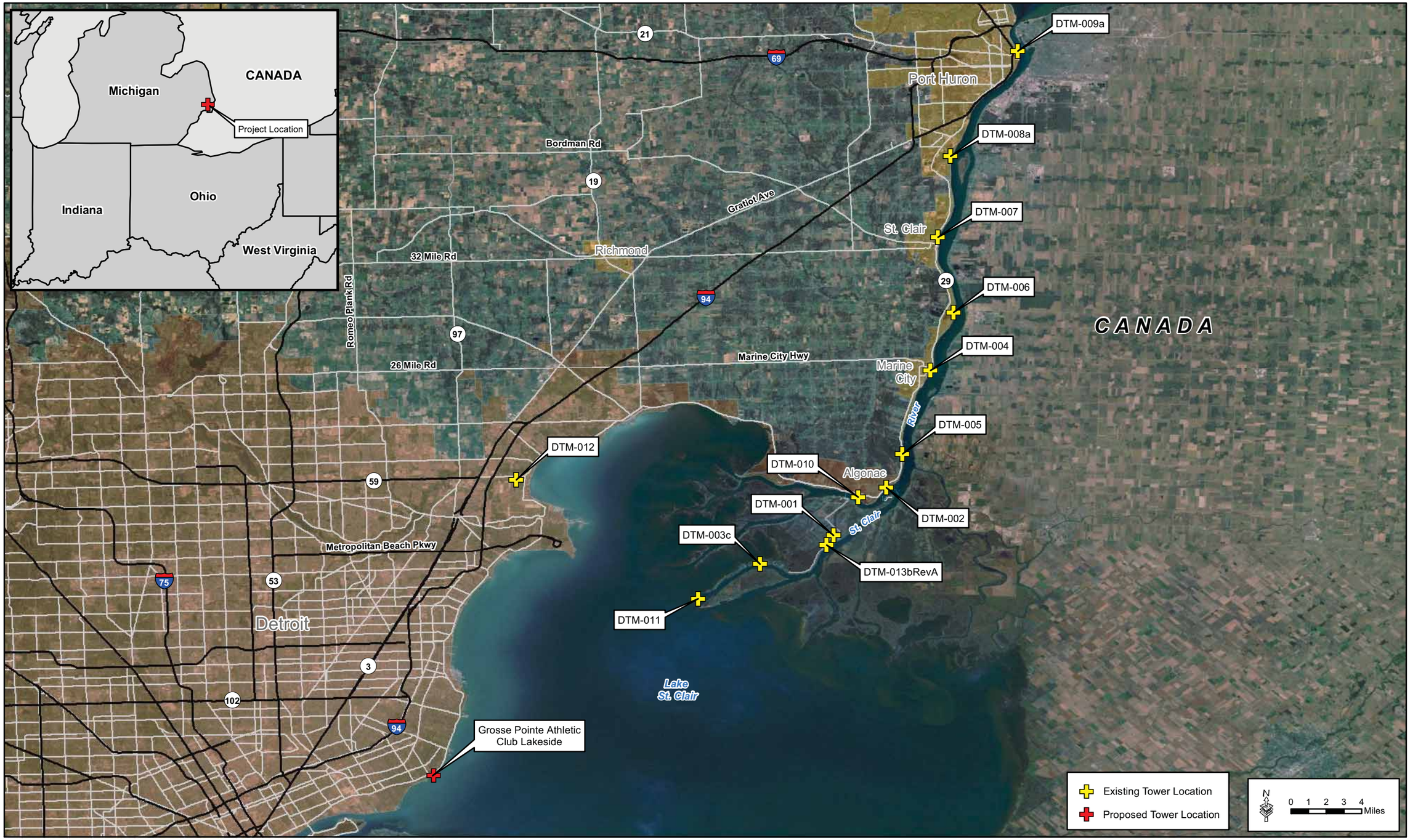

Figure 1-1: SBI*net* Detroit Sector Project Vicinity Map

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With the implementation of the SBI*net* Detroit project as described and analyzed in the August 2009 EA, the November 2009 SEA, and this SEA, it is anticipated that CBP will increase surveillance capabilities in its mission of improving border security. This SEA describes the project goals that SBI*net* is required to support and analyzes the potential environmental impacts from site selection, construction, upgrade, operation, and deployment of its component structures and facilities.

1.1.1 Program Background

The program background was described in the August 2009 EA and is incorporated herein by reference (CBP 2009a). In summary, SBI*net* was the component of SBI charged with developing and installing technology and attendant tactical infrastructure (TI) solutions to help CBP gain effective control of our Nation's borders. The goal of SBI*net* was to field the most effective, proven technology and response platforms, and integrate them into a single, comprehensive border security system for DHS. SBI*net* was the CBP program charged with carrying out the program to better execute this vital mission. OTIA assume the responsibility of the management, construction, and operation of this program.

1.1.2 Legislative Background

The legislative background was described in the August 2009 EA and is incorporated herein by reference (CBP 2009a). The three primary acts that govern CBP's program are the Immigration and Naturalization Act (8 U.S.C. 1103), the Homeland Security Act (6 U.S.C. 101), and the Illegal Immigration Reform and Immigrant Responsibility Act (8 U.S.C. 1101).

1.2 PURPOSE AND NEED

The purpose and need of the proposed SBI*net* Detroit project was described in detail in the August 2009 EA and is incorporated herein by reference (CBP 2009a). In summary, the SBI*net* Detroit project would meet the stated purpose and need of:

1) providing more efficient and effective means of assessing border activites;
2) providing rapid detection and accurate characterization of potential threats;
3) providing coordinated deployment of resources in the interdiction of CBVs; and
4) reducing crime in border communities and improving the quality of life and economic vitality of border regions through provision of the tools necessary for effective law enforcement.

The additional tower addressed in this SEA would enhance the system currently being installed, as addressed in the November 2009 EA. This new tower is needed to provide complete coverage to the affected shoreline.

1.3 PUBLIC INVOLVEMENT

1.3.1 Public Review

As directed by 40 CFR Sections 1501.7, 1503, and 1506.6, SBI*net* initiated public involvement and scoping activities to identify any significant issues related to this proposed project. This process began in the spring of 2010 through the initial site visits, which included participants

from state and Federal resource agencies. All potential tower sites were visited, potential impacts were identified, and potential impact mitigations were discussed.

A draft of this SEA and draft Finding of No Significant Impact (FONSI) were released for a 30-day public review on December 09, 2010. A Notice of Availability was published in the *Detroit News* to announce the public comment period and the availability of the draft SEA and draft FONSI. The proof of publication of the Notice of Availability from the *Detroit News* is included in Appendix A.

No comments were received during the 30-day public comment period. However, the Grosse Pointe Athletic Club requested that the tower be moved approximately 30 yards northwest of the proposed lakeside location. The new location would provide uninterrupted views of Lake St. Clair from the gathering rooms and sundecks of the Athletic Club. The tower would not lose any tactical capabilities in the new location nor would any additional environmental or cultural impacts be expected.

A second Notice of Availability (Exhibit 1) will be published in the *Detroit News* once the final SEA is published and the FONSI is signed for this project.

1.3.2 Agency Coordination

Coordination and consultation with stakeholder agencies and other potentially affected parties was initiated in June 2010 during the initial planning stages of this additional component of the SBI*net* Detroit Project. CBP issued agency coordination letters to potentially affected Federal, state, and local agencies in June 2010 inviting their participation and input regarding this SEA. Coordination with the Michigan State Historic Preservation Officer (SHPO) through the Michigan Department of History, Art and Libraries has been ongoing in accordance with the Michigan SHPO directives. Additionally, all pertinent Native American tribes have been contacted and notified of the project.

Copies of the coordination letters and any responses or additional correspondence generated during this project are included in Appendix A. Per 40 CFR Sections 1501.7 and 1502.25, coordination and consultation were conducted with the following:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Department of Agriculture, Natural Resources Conservation Service
- Michigan Department of Natural Resources
- Michigan Natural Features Inventory
- State of Michigan, Department of History, Arts and Libraries
- Michigan Department of Environmental Quality
- Wayne County, Michigan
- Michigan State Historic Preservation Officer

1.4 FRAMEWORK FOR ANALYSIS

The framework for analysis was discussed in detail in the 2009 EA and is incorporated herein by reference (CBP 2009a). This SEA was prepared in accordance with provisions of the NEPA of

1969 as amended (40 U.S.C. 4321 *et seq*.), CEQ's NEPA implementing regulations in 40 CFR Part 1500, and the DHS *Directive 023-01* (previously numbered 5100.1)*, Environmental Planning Program*.

Exhibit 1. Notice of Availability

NOTICE OF AVAILABILITY

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (SEA) AND FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR THE PROPOSED SBI*NET* DETROIT PROJECT – GROSSE POINTE TOWER, DETROIT SECTOR, MICHIGAN

U.S. Customs and Border Protection (CBP), a component of the Department of Homeland Security (DHS), announces the availability of the final SEA and FONSI for the proposed SBI*net* Detroit Project Grosse Point Tower. Pursuant to the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (U.S.C.) 4321 *et seq.*, CBP has prepared the SEA and FONSI to identify and assess the potential impacts associated with the proposed siting, construction, operation, and maintenance of a sensor and communications tower within the Detroit Sector. The location for the Proposed Action, which is known as the "SBI*net* Detroit Project," is the Grosse Pointe Athletic Club near the shoreline of Lake St. Clair (United States-Canada International Border) in Grosse Pointe within Detroit Sector, Michigan.

The SEA and FONSI were prepared in accordance with CBP's obligations under NEPA, the Council on Environmental Quality (CEQ) implementing regulations at 40 Code of Federal Regulations (CFR) Parts 1500–1508, and DHS Management Directive 023-01 (Environmental Planning Program). Copies of the Detroit Project SEA and FONSI can be downloaded from the project website at www.cbp.gov/sbi under the link *SBI NEPA Documents for Public Review and Comment*. Additionally, copies are available in the following libraries:

Grosse Pointe Public Library – Central Branch, 10 Kercheval Avenue, Grosse Pointe Farms, MI, 48236, (313)343-2074, and Grosse Pointe Public Library – Ewald Branch, 15175 E. Jefferson, Grosse Pointe Park, MI, 48230, (313)343-2071.

Copies of the documents may also be requested by contacting Ms. Paula Miller via one of the following methods: (1) by email: GrossePointeSEAComments@dhs.gov; (2) by mail: Ms. Paula Miller, Acting Environmental Planning and Compliance Manager, U.S. Customs and Border Protection, 1901 S. Bell Street, 7th Floor, Room 7-001, Arlington, VA 20598; or (3) by fax: (571) 468-7391.

SECTION 2.0
PROPOSED ACTION ALTERNATIVE AND ALTERNATIVES

2.0 PROPOSED ACTION ALTERNATIVE AND ALTERNATIVES

2.1 ALTERNATIVES AND ALTERNATIVE SELECTION

The alternative selection process was discussed in detail in the 2009 EA and is incorporated herein by reference (CBP 2009a). As the proponent agency preparing this SEA, CBP developed a range of alternatives with consideration of the purpose and need outlined above and of the potential effects on the environment. The purpose of this project is to support CBP's mission by maximizing USBP's surveillance capabilities along Lake St. Clair. CBP considered various technological systems and equipment capable of providing spatially and temporally continuous surveillance across the geographic scope of this project. The No Action Alternative, described in Section 2.4, is assessed as required by NEPA and CEQ regulations at 40 CFR §1502.14(d).

2.2 CRITERIA FOR TOWER SITE SELECTION

Criteria for the selection of tower sites were discussed in detail in the 2009 EA, and that discussion is incorporated herein by reference (CBP 2009a). Briefly, the tower site selection process identifies potential suitable site locations and their alternatives. Key tower site evaluation considerations take into account constructability, operability, and environmental factors. Four potential tower sites, as identified in Table 2-1, were considered for this SEA.

Table 2-1. Alternate Sites Considered for SBI*net* Detroit Project

Site Number	Site Name/Property Owner
SEA Site 1	Grosse Pointe War Memorial
SEA Site 2	Hillside – Grosse Pointe Athletic Club
SEA Site 3	Lakeside – Grosse Pointe Athletic Club
SEA Site 4	Alter Road Park/Mariner Park – Wayne County

<u>Grosse Pointe War Memorial and Grosse Pointe Athletic Club Hillside (SEA Sites 1 and 2)</u>
SEA Sites 1 and 2 have been removed from consideration in this SEA, due to potential adverse effects on the viewsheds of two historic properties listed on the National Register of Historic Places (NRHP) (Johnson 2010). If either of these proposed towers would be constructed, they would be seen from the Russell A. Alger House and the Grosse Pointe Memorial Church. Figure 2-1 illustrates the proximity of the historic properties and Sites 1 and 2.

<u>Alter Road Park/Mariner Park (SEA Site 4)</u>
SEA Site 4 at Alter Road Park/Mariner Park (Figure 2-2) was removed from consideration in this SEA due to operational concerns. While the location appeared to be ideal, testing showed that the tower would not provide adequate radar coverage of small boat threats on Lake St. Clair when partnered with the existing tower on Gull Island (DTM-11). Therefore, this tower was eliminated from further consideration.

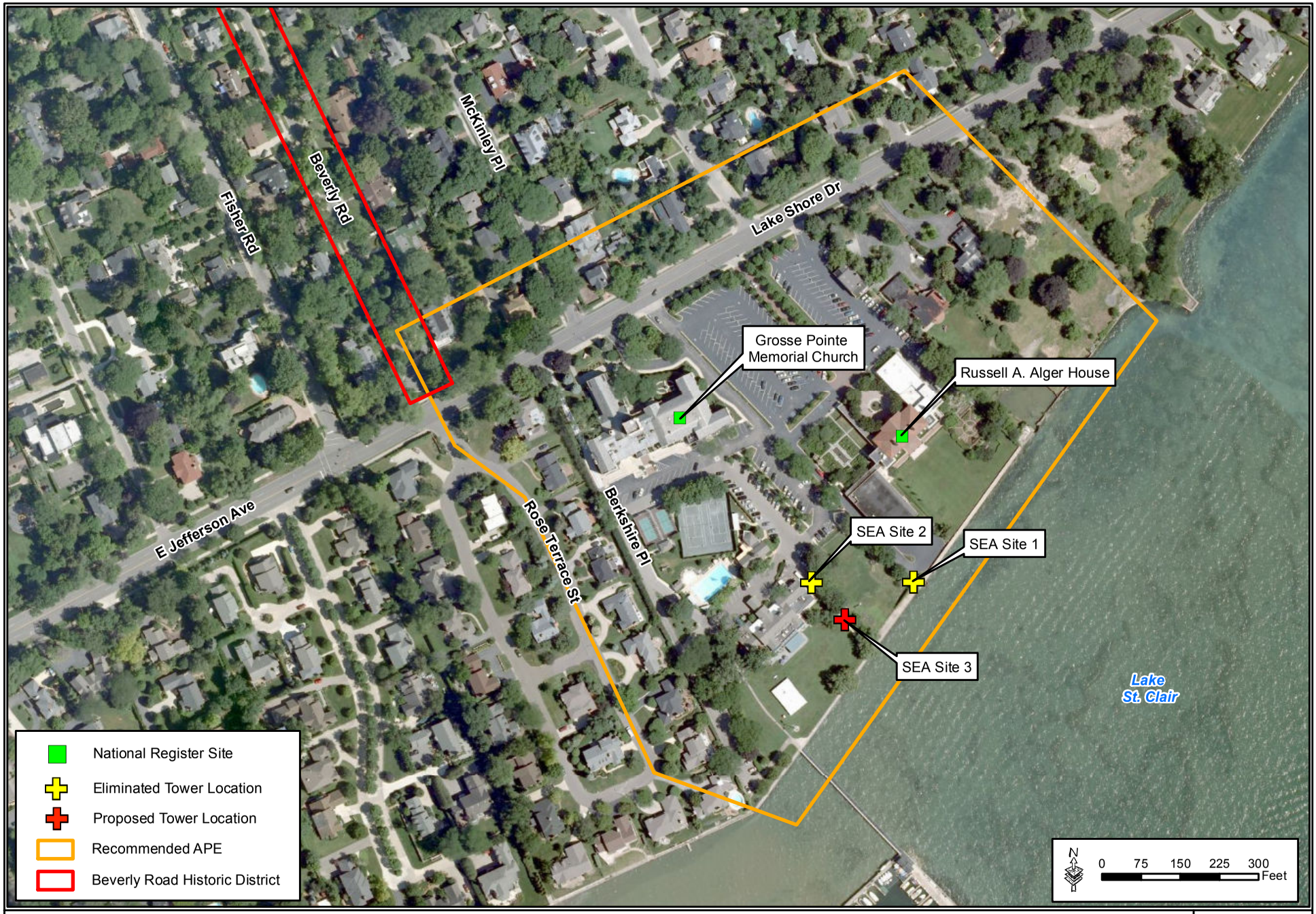

Figure 2-1: SBI*net* Detroit Sector Project Proposed Alternative Tower Locations and Adjacent Cultural Resources

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Figure 2-2: Alter Road Park Tower Location Map

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2.3 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative analyzed in this SEA is a USBP sector-based project and component of the SBI*net* program known as the SBI*net* Detroit project. The Proposed Action Alternative includes the construction of one monopole surveillance tower and its operation and maintenance. A summary of the proposed tower construction site is provided in Section 2.3.1.

Following the completion of the August 2009 final EA and signed FONSI, CBP determined that a tower located along Lake St. Clair in the Grosse Pointe area would facilitate full surveillance coverage of the United States' shores of Lake St. Clair. Connectivity through microwave or fiber-optic cable would feed all data collected by the tower to the Detroit Sector Headquarters. The Proposed Action Alternative, as described in the August 2009 final EA (CBP 2009a) and the November 2009 SEA (CBP 2009b), included the construction of towers, installation of equipment, and construction of access roads. Therefore, upon completion, the SBI*net* Detroit Sector Project would include a total of 14 tower/installation sites.

The Proposed Action Alternative described in this SEA represents CBP's plan to develop technology, infrastructure, and deployment of CBP personnel to achieve effective control of the border along the St. Clair River and Lake St. Clair in the Detroit Sector. Technology consists of surveillance cameras. Infrastructure development included in this plan consists of roadways to/from surveillance assets, communications and sensor towers, and utilities. No roads are required for this additional monopole tower.

The Proposed Action Alternative would construct a monopole tower at the Grosse Pointe Athletic Club – Lakeside (Site 3) location as previously identified in Figure 2-1. To construct the proposed tower, CBP plans to lease private land and to obtain necessary construction permits.

A typical drawing of a monopole tower design is provided as Figure 2-3. The proposed tower would have the following design components:

- tower height – approximately 60 feet
- power source – commercial grid power. Power lines would be installed either overhead or in buried cables from the main trunk line to the tower. The installation of overhead or buried lines would occur within the established road right-of-way or existing utility easement. There will also be a battery backup system at the tower, in the event of loss of commercial electrical grid power.
- communications capabilities - send surveillance data to the USBP Detroit Sector via microwave or fiber-optic cable.
- tower site footprint – a maximum of 50- by 50-foot

The 50- by 50-foot footprint for the proposed tower would be cleared of all vegetation except grass. Tower construction staging areas would be located within the construction footprint. The construction time is expected to be approximately 45 days and, in general, would occur during daylight hours. However, it is possible that due to construction schedule constraints, some nighttime construction could occur.

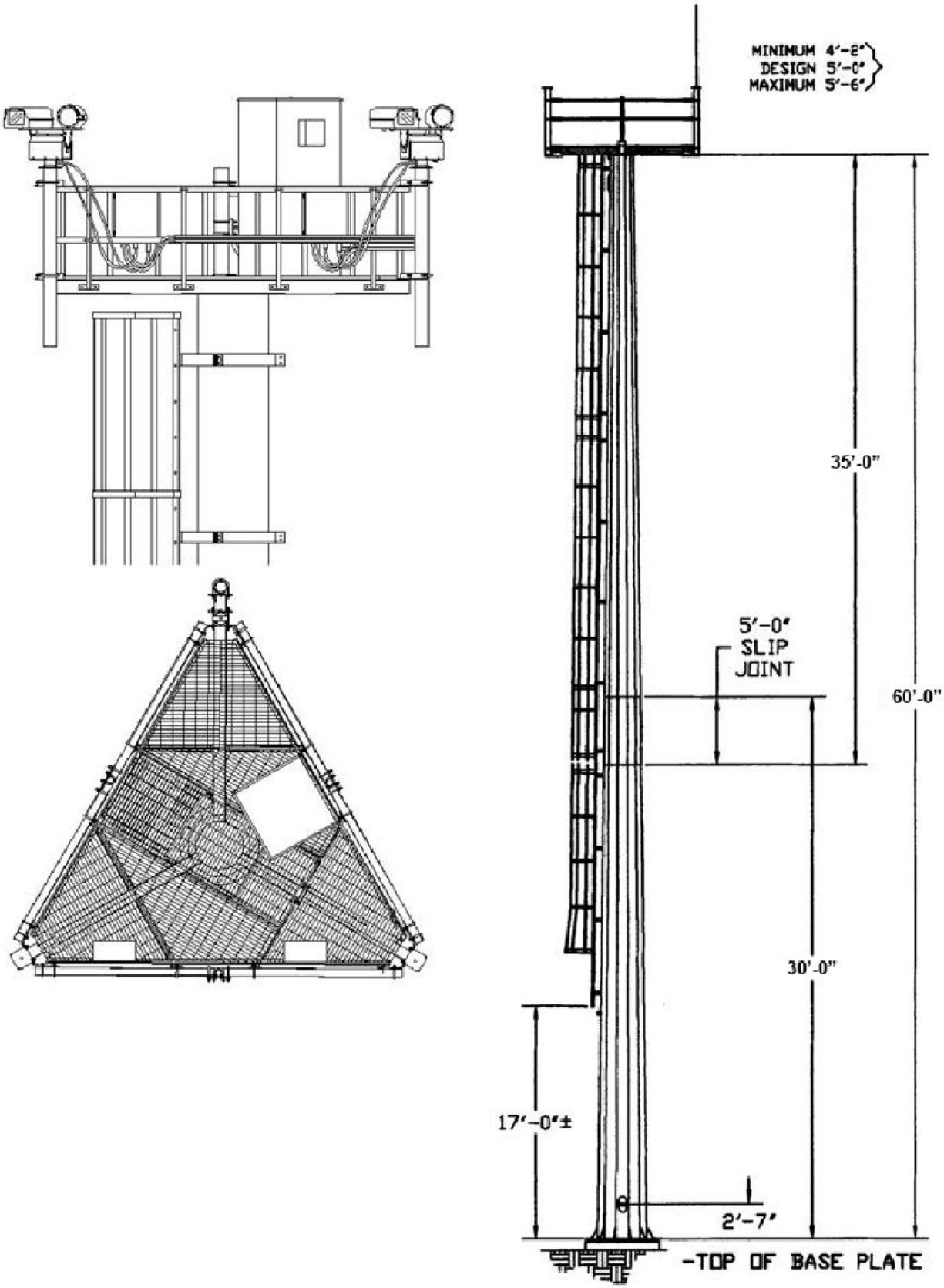

Figure 2-3: Typical SBI*net* Tower Monopole Design

Towers generally require line-of-sight placement to ensure clear microwave transmission signals from tower to tower. Components would be mounted on the tower between approximately 40 to 60 feet above ground level, depending on the local terrain. Additionally, one or more solid parabolic antennas would be mounted on platform railings or on a separate antenna mount (not to exceed 13 feet). If fiber optics are used for data communication to the USBP Detroit Sector Headquarters, cables would run underground from the tower to the nearest established connection available. Cameras would be installed at heights to ensure satisfactory views and provide clear communications pathways.

Any tower lighting would be installed in accordance with Federal Aviation Administration (FAA) regulations, standards, and guidelines for the lighting of tower structures found in 14 CFR Section 77 and FAA Advisory Circulars (AC) 150/5345-43f and AC 70/7460-1K. When tower facility lighting is deemed necessary to meet FAA regulations or CBP operational needs, USFWS (2000) *Service Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation and Decommissioning* would be followed to reduce nighttime atmospheric lighting and the potential for adverse effects of nighttime lighting on migratory birds and nocturnal flying species. Security lighting would utilize low sodium bulbs, prevent illumination outside the footprint of the tower site, and when possible, be activated by motion detectors.

2.3.1 Proposed Tower Description

This section provides an in-depth description of the proposed tower site, including the type of infrastructure necessary for deployment. See Figure 2-3 for a typical drawing of a monopole tower design. Appendix A contains a biological survey report to the Michigan Department of Natural Resources (DNR), which provides specific information about the proposed tower locations relative to the extant level of disturbance.

Tower ID:	**Grosse Pointe Athletic Club Lakeside**
Site Function:	Sensor and Communications relay tower
Tower Type:	Monopole tower
Tower Height:	60 feet
Land Use:	Private Club
Location:	The proposed tower site is located approximately 110 feet north northwest of Lake St. Clair, at the Grosse Pointe Athletic Club, Grosse Pointe, Michigan (Figure 2-4). More specifically, the tower would be constructed approximately 110 feet from the bulkhead at the lakeside within a landscaped lawn.
Tower Access:	Access to the proposed site is via existing roads and parking lots. The existing access points are adequate for installation and maintenance.
Power Source:	Commercial grid electric power is located within 100 feet of the site.

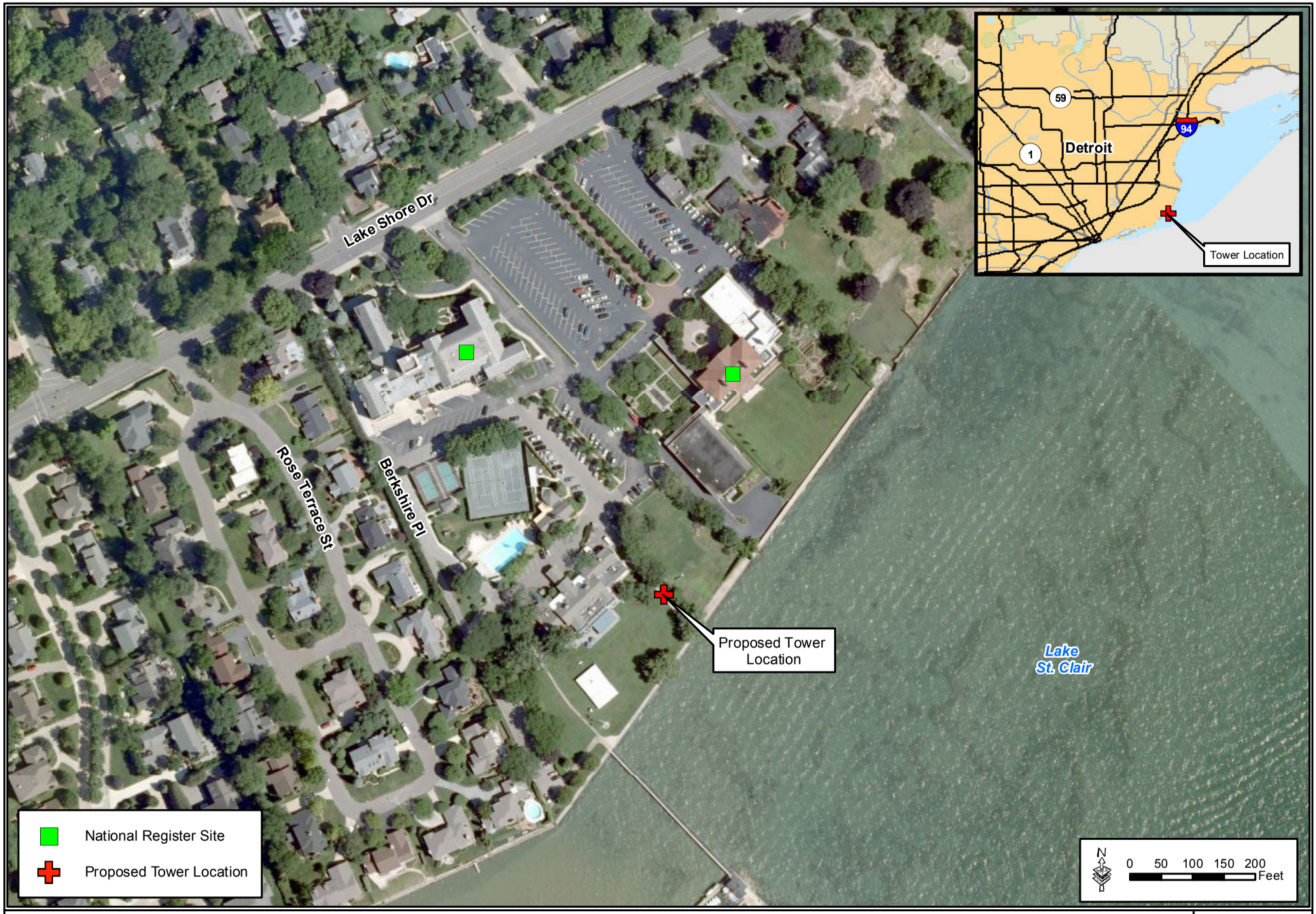

Figure 2-4: SBI*net* Detroit Tower Site Location - Proposed Action

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2.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the tower proposed in this SEA would not be constructed. The No Action Alternative would partially satisfy the stated purpose and need and its inclusion in this SEA is required by NEPA regulations (40 CFR 1502.14(d)) as a basis of comparison to the anticipated effects of the Proposed Action Alternative. The construction of the other towers and installation of surveillance equipment on existing structures, as described in the August 2009 EA and November 2009 SEA, would continue, even if the No Action Alternative is selected during this SEA process. Implementation of the No Action Alternative would not maximize USBP's surveillance capabilities along the St. Clair River. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action Alternative are evaluated.

2.5 ALTERNATIVES ELIMINATED FROM ANALYSIS

CBP considered a range of alternatives during the planning process for the Proposed Action Alternative. The alternatives that were eliminated from further detailed analysis for various reasons are incorporated from the 2009 EA herein by reference (CBP 2009a). The alternatives discussed in the 2009 EA included: 1) unmanned aircraft systems; 2) remote-sensing satellites; 3) increased CBP workforce; and 4) increased aerial reconnaissance/operations.

2.6 SUMMARY

The two alternatives selected for further analysis are the No Action Alternative and the Proposed Action Alternative. An alternative matrix (Table 2-2) shows how each of these alternatives satisfies the stated purpose and need. Table 2-3 presents a summary matrix of the impacts from the two alternatives analyzed and how they affect the environment and environmental resources in the proposed tower areas.

Table 2-2. Alternative Matrix of Purpose and Need and Alternatives

Purpose and Need	No Action Alternative	Proposed Action Alternative
Providing more efficient and effective means of assessing border activities	Partial	Yes
Providing rapid detection and accurate characterization of potential threats	Partial	Yes
Providing coordinated deployment of resources in the apprehension of smugglers and CBVs	Partial	Yes
Reducing crime in border communities and improving the quality of life and economic vitality of border regions through provision of the tools necessary for effective law enforcement	Partial	Yes

Table 2-3. Summary Matrix

Affected Environment	No Action Alternative	Proposed Action Alternative
Land Use (Section 3.2)	No additional impacts would occur.	No significant impacts on land use are expected. Approximately 0.06 acre of land would be converted from the original land use category (private club) into border infrastructure.
Soils and Prime Farmland (Section 3.3)	No additional impacts would occur.	Under the Proposed Action Alternative, approximately 0.06 acre of soil would be directly impacted due to the construction of the proposed tower. All practicable best management practices (BMP) would be used to minimize impacts. No prime farmland soils would be impacted.
Surface Waters, Waters of the U.S., and Floodplains (Section 3.4)	No additional impacts would occur.	A National Pollution Discharge Elimination System (NPDES) permit would not be necessary for this project; however, all pertinent BMPs would be implemented to minimize erosion into surface waters. No wetlands would be impacted by the Proposed Action Alternative. The proposed tower is located within an area mapped as a special flood hazard area, without base flood elevations determined. No structures would impede the conveyance of flood waters, decrease floodplain capacity, or increase flood elevations, frequencies, or durations. The implementation of the Proposed Action Alternative would have no significant effect on floodplain management.
Vegetation (Section 3.5.1)	No additional impacts would occur.	Impacts on vegetation would be minor, as all sites were pre-screened to provide the least physical impacts. Construction of the proposed tower would impact approximately 0.06 acre of non-native vegetation.
Fish and Wildlife (Section 3.5.3)	No additional impacts would occur.	Tower construction would impact a maximum of 0.06 acre of poor-quality terrestrial wildlife habitat.
Protected Species (Section 3.5.5)	No additional impacts would occur.	No Federally or state-listed protected species occur within or near the proposed tower sites. The Proposed Action Alternative is expected to have no effect on any protected species or habitat.
Cultural Resources (Section 3.6)	No additional impacts would occur.	The Proposed Action Alternative would have no adverse effects on cultural resources.
Air Quality (Section 3.7)	No additional impacts would occur.	Temporary and minor increases in air pollution would occur from the use of construction equipment and the disturbance of soils during construction of the new tower.

Table 2-3, continued

Affected Environment	No Action Alternative	Proposed Action Alternative
Noise (Section 3.8)	No additional impacts would occur.	Noise generated by heavy construction equipment would be intermittent and last 1 to 2 weeks to excavate and prepare the foundation to install the tower, after which noise levels would return to ambient levels. The noise impacts from construction activities would be short-term and minor and would not significantly impact the noise environment.
Radio Frequency Environment (Section 3.9)	No additional impacts would occur.	The equipment would emit radio frequency energy and electromagnetic radiation; therefore, some minor potential for adverse effects could occur. However, any adverse effects on human safety and wildlife would be negligible due to the minimal exposure risk and the elevated locations in which the antennae would be positioned.
Utilities and Infrastructure (Section 3.10)	No additional impacts would occur.	The SBI*net* Detroit project would not have significant impacts on the local power grid.
Roadways and Traffic (Section 3.11)	No additional impacts would occur.	The Proposed Action Alternative would not significantly impact roadways and traffic. Minor, short-term impacts during construction would occur.
Aesthetics and Visual Resources (Section 3.12)	No additional impacts would occur.	Impacts on the aesthetic and visual resources from the Proposed Action Alternative would occur. Deployment of the tower presents minor visual impacts to aesthetics, but the tower, once operational, would deter illegal activity, vandalism, and littering. The tower would not affect use of the private club.
Hazardous Waste (Section 3.13)	No additional impacts would occur.	The Proposed Action Alternative would not result in significant exposures of the environment or public to any hazardous materials. The potential exists for minor releases of petroleum, oil, and lubricant (POL) during construction or operational activities. BMPs would be put in place to minimize any potential contamination at the proposed site during construction activities and operation.
Socioeconomics (Section 3.14)	No additional impacts would occur.	The Proposed Action Alternative would not cause any changes to local employment rates, poverty levels, or local incomes.
Environmental Justice and Protection of Children (Section 3.15)	No additional impacts would occur.	Implementation of the Proposed Action Alternative would cause no direct impacts on minority and low-income populations.
Sustainability and Greening (Section 3.16)	No additional impacts would occur.	Under the Proposed Action Alternative, applicable Federal sustainability and greening practices would be implemented to the greatest extent practicable.

SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 PRELIMINARY IMPACT SCOPING

This section of the SEA describes the natural and human environment that exists within the project area and Region of Influence (ROI), and the potential impacts of the No Action and Proposed Action Alternative as outlined in Section 2.0 of this document. The ROI for the proposed tower project is Wayne County, Michigan. Only those resources with the potential to be affected by the Proposed Action Alternative are described, per CEQ regulations (40 CFR 1501.7 [3]). Impacts can vary in magnitude from a slight to a total change in the environment. The impact analysis presented in this SEA is based upon existing regulatory standards, scientific and environmental knowledge and best professional opinions. The impacts on each resource are described as significant, moderate, minor (minimal), insignificant or no impact. Some topics are limited in scope due to the lack of direct effect from the proposed project on the resource, or because that particular resource is not located within the project area. Resources such as geology, climate, and wild and scenic rivers are not addressed for the following reasons:

Geology
The Proposed Action Alternative would not affect any geological features within or near the project area.

Climate
The climate would not be impacted by the construction and operation of the Proposed Action Alternative.

Wild and Scenic Rivers
The Proposed Action Alternative would not affect any designated Wild and Scenic Rivers (16 U.S.C. 551, 1278[c], 1281[d]) because no rivers designated as such are located within or near the project area.

Impacts (consequence or effect) can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. Direct impacts are those effects that are caused by the action and that occur at the same time and place (40 CFR 1508.8[a]). Indirect impacts are those effects that are caused by the action and that are later in time or further removed in distance, but that are still reasonably foreseeable (40 CFR 1508.8[b]). As discussed in this section, the No Action and Proposed Action Alternatives may create temporary (lasting the duration of the project), short-term (up to 3 years), long-term (3 to 10 years following construction), or permanent impacts or effects.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. Significant impacts are those effects that would result in substantial changes to the environment (40 CFR 1508.27) and should receive the greatest attention in the decision-making process. Insignificant impacts are those that would result in minimal changes to the environment. The following discussions describe and, where possible, quantify the potential effects of each alternative on the resources within or near the project area. All impacts described below are considered to be adverse unless stated otherwise.

Permanent impacts for the construction of the proposed tower are determined using the 50- by 50-foot tower footprint. All construction activities would occur within this proposed footprint, impacting 2,500 square feet or 0.06 acre. It is the largest impact area expected for construction. Once erected, the standing tower base would measure less than 10 by 10 feet within the 0.06 acre impact area.

All impacts described would be in addition to those identified and discussed for the Proposed Action Alternative in the August 2009 final EA for the SBI*net* Detroit Sector Project and the November 2009 final SEA for the SBI*net* Detroit Sector Project (CBP 2009a and 2009b). A total of 1.15 acres of permanent impacts are expected for the construction of nine towers, installation of equipment on four existing structures, and construction of access roads. The impacts on the human and natural environment from the construction, operation, and maintenance of these structures are incorporated by reference (CBP 2009a and 2009b).

3.2 LAND USE

3.2.1 Affected Environment

Current land use at the proposed tower site is a privately owned club, the Grosse Pointe Athletic Club. The proposed tower placement is approximately 110 feet northwest of the lakeside bulkhead within a landscaped lawn. The club is used for non-contact lake and river access and has a marina and floating dock facility.

3.2.2 Environmental Consequences

3.2.2.1 No Action Alternative

No additional impacts are expected on land use from the No Action Alternative, as the proposed tower would not be constructed. Impacts on land use as discussed in the August 2009 EA and November 2009 SEA would continue as communications and surveillance equipment is operated as part of the Detroit Sector SBI*net* project. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.2.2.2 Proposed Action Alternative

The placement of the tower would not impact the intended use of the facility. Full access to Lake St. Clair and the club's grounds would remain intact. Due to the small impact footprint of the towers, the future land use surrounding the tower sites would not be significantly limited or otherwise restricted. No significant impacts on current land use are anticipated, and construction, operation, and maintenance activities at the proposed tower sites would not alter overall land use in the region.

No significant impacts on land use are expected with the implementation of the Proposed Action Alternative. Less than 1 acre (approximately 0.06 acre) would be permanently converted into border infrastructure.

3.3 SOILS AND PRIME FARMLAND

3.3.1 Affected Environment

Soils at the proposed tower site include Urbanland-Lenawee-Blount soil association as identified by the State Soil Geographic Database (STATSGO) (Natural Resources Conservation Service

[NRCS] 1994). Urbanland is a group classification used when soils are generally difficult to classify due to urban development or if the soil is built by fill material from numerous sources. The Lenawee series consists of very deep, poorly drained soils formed on lake plains and depressional areas. Permeability is moderately slow or slow, and surface runoff is very slow or ponding often occurs (NRCS 2004). The Blount series are very deep soils that are somewhat poorly drained soil with slow permeability. The potential for surface runoff is low to medium (NRCS 2008). Limitations for development of structures on these soil types include avoiding areas that are susceptible to flooding, erosion, or sinking.

3.3.2 Environmental Consequences

3.3.2.1 No Action Alternative

No additional impacts are expected on soils from the No Action Alternative, as the proposed tower would not be constructed. Impacts on soils as discussed in the August 2009 EA and November 2009 SEA would continue as communications and surveillance equipment is installed on four existing structures and nine monopole towers and associated access roads are constructed as part of the Detroit Sector SBI*net* project. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.3.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, approximately 0.06 acre of soil would be directly impacted due to the construction of the proposed tower. BMPs to prevent soil erosion and soil displacement would be implemented during construction to prevent soil loss. The impacted soils are common in the general area and are not classified as prime farmland soils, so their disturbance would not constitute a significant impact.

A National Pollutant Discharge Elimination System (NPDES) permit for development would not be necessary, because the total impacts at the construction site are expected to be less than 1 acre (40 CFR Section 122.26 (b) (15) (i)).

3.4 WATER RESOURCES

3.4.1 Affected Environment

Surface Waters

Surface waters were discussed in detail in the August 2009 EA, and that discussion is incorporated herein by reference (CBP 2009a). The project area is located in the Lake St. Clair Federal watershed. The Lake St. Clair watershed is currently not meeting fish consumption standards for water quality attainment status. The suspected causes of impairment are mercury and polychlorinated biphenyl bioaccumulation in fish tissue from atmospheric deposition (Michigan Department of Environmental Quality [MDEQ] 2008).

Floodplains

Pursuant to the National Flood Insurance Act of 1968, as amended (42 U.S.C. 4001, *et seq.*), and the Flood Disaster Protection Act of 1973 (Public Law 93-234, 87 Statute 975), Executive Order (EO) 11988, Floodplain Management, requires that each Federal agency take actions to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and preserve the beneficial values that floodplains serve. EO 11988 requires that agencies evaluate

the potential effects of actions within a floodplain and avoid floodplains unless the agency determines that there is no practicable alternative. Where the only practicable alternative is to site in a floodplain, a planning process is followed to ensure compliance with EO 11988. In summary, this process includes the following steps:

- Determine whether or not the action is in the regulatory floodplain
- Conduct early public notice
- Identify and evaluate practicable alternatives
- Identify impacts of the action
- Minimize the impacts
- Reevaluate alternatives
- Present the findings and a public explanation
- Implement the action

This process is further outlined on the Federal Emergency Management Agency's (FEMA), Environmental Planning and Historic Preservation Program web site (FEMA 2006). As a planning tool, the NEPA process incorporates floodplain management through analysis and public coordination, ensuring that the floodplain management planning process is followed. In addition, floodplains are managed at the local municipal level with the assistance and oversight of FEMA. Therefore, any action within these areas would require appropriate coordination and evaluation of the potential effects. The proposed tower site is located within the 100-year floodplain; however, base flood elevations and flood hazard factors have not been determined for this area (FEMA 1982).

3.4.2 Environmental Consequences

3.4.2.1 No Action Alternative

No additional impacts are expected to occur on surface waters or floodplains from the No Action Alternative, as the proposed tower would not be constructed. Impacts on surface waters and floodplains as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.4.2.2 Proposed Action Alternative

Surface Waters

Under the Proposed Action Alternative, temporary short-term impacts on downstream surface waters could potentially occur during the construction period due to soil erosion. Although an NPDES permit would not be required for this project because only 0.06 acre would be impacted, BMPs during construction would alleviate or minimize potential or temporary impacts on downstream surface waters (40 CFR 122).

During tower construction activities, water quality within ephemeral and perennial streams would be protected through the implementation of BMPs (e.g., silt fences). The construction contractor's Spill Prevention, Control and Countermeasure Plan (SPCCP) would also be in place prior to the start of construction. BMPs outlined in the SPCCP plan would reduce potential migration of soils, oil and grease, and construction debris into local watersheds.

Floodplains
To effectively operate as St. Clair River/United States border surveillance along the shoreline, the towers must be constructed within proximity of the river. Consequently, avoiding the 100-year floodplain would be difficult or, in some cases impossible, but would still be able to achieve the required line of sight and avoid impacts associated with a taller tower, which would be required if the site were to be located away from the river. The development, issuance, and analysis provided by this SEA constitute compliance with EO 11988 as outlined by the 8-part process described above.

Additionally, the proposed tower would not impede the conveyance of flood waters, decrease floodplain capacity, increase flood elevations, frequencies, or durations. The implementation of the Proposed Action Alternative would have no significant effect on floodplain management.

3.5 NATURAL RESOURCES

3.5.1 Vegetation
The vegetation at the proposed tower site includes a landscaped area with hydrangea bushes (*Hydrangea macrophylla*), silver maple (*Acer saccharinum*), and a large corkscrew willow (*Salix matsudana*) at the edge of a maintained lawn. The surrounding area has been developed for residential, municipal, commercial, and industrial uses. The proposed tower site is used exclusively for recreational activities.

3.5.2 Environmental Consequences
3.5.2.1 No Action Alternative
No additional impacts are expected to occur on vegetation from the No Action Alternative, as the proposed tower would not be constructed. Impacts on vegetation as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.5.2.2 Proposed Action Alternative
Construction of the proposed tower would result in minimal impacts on non-native vegetation, as all of the proposed sites were pre-screened to minimize physical impacts. Additionally, the proposed tower site is located in low-quality habitat dominated by non-native plants and maintained landscaping.

Construction of a monopole tower would impact a maximum of 0.06 acre of vegetation. Minor trimming of overhanging branches and limbs of adjacent silver maples may be necessary. All precautions would be taken to avoid adverse impacts on adjacent trees.

3.5.3 Fish and Wildlife
The biological environment of the project area was discussed in detail in the August 2009 EA, and is herein incorporated by reference (CBP 2009a). The habitat near the proposed tower is similar to a suburban home. There is little available quality habitat surrounding the proposed tower site. During the May 2010 survey, the following species were observed: red-winged blackbird (*Agelaius phoeniceus*), European starling (*Sturnus vulgaris*), tree swallow (*Tachycineta bicolor*), and American robin (*Turdus migratorius*).

3.5.4 Environmental Consequences

3.5.4.1 No Action Alternative

No additional impacts are expected to occur on wildlife from the No Action Alternative, as the proposed tower would not be constructed. Impacts on wildlife as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.5.4.2 Proposed Action Alternative

The Proposed Action Alternative would result in extremely minimal to no impacts on fish or wildlife habitat. Tower construction would disturb soils and impact a maximum of 0.06 acre of landscaped and maintained vegetation wildlife habitat. The proposed tower site is within a developed area containing wildlife species adapted to habitation in developed areas. Negligible adverse effects on wildlife populations would be expected since habitat similar to those being impacted exists adjacent to the proposed sites. Construction activities would be limited to short periods. Impacts from soil displacement, such as erosion, could impact aquatic resources; however, due to the limited size of the proposed site and the use of general construction BMPs (Section 5), these effects would be minimized. Therefore, negligible effects on the area's fish and wildlife populations would be expected from construction of the towers. Once the towers are installed, the operation and maintenance of the towers would also have negligible effects on the area's wildlife.

The area along Lake St. Clair has been used as a traditional migration area for waterfowl and other migratory birds. Therefore, if construction occurs during migratory bird nesting season (March 15 through August 31), a trained biologist will perform a pre-construction migratory bird survey to determine if birds are nesting in the proposed construction area. If active nests are discovered within the proposed construction area, a certified wildlife rehabilitator will be contacted to relocate the nesting birds and eggs.

3.5.5 Protected Species

Gulf South Research Corporation (GSRC) obtained a list of Federally protected species from the current USFWS database (USFWS 2009). Five Federally protected species have the potential to occur within Wayne County: the Indiana bat (*Myotis sodalis*) (Endangered), eastern massasauga (*Sistrurus catenatus catenatus*) (Candidate), northern riffleshell (*Epioblasma torulosa rangiana*) (Endangered), rayed bean (*Villosa fabalis*) (Candidate), and eastern prairie fringed orchid (*Plantathera leucophaea*) (Threatened) (USFWS 2009). The Indiana bat, rayed bean and eastern prairie fringed orchid were discussed in detail in the August 2009 EA, and that discussion is herein incorporated by reference (CBP 2009a). No critical habitat has been designated that encompasses any of the proposed sites.

Photograph 3-1. Eastern Massasauga. Photograph courtesy of USFWS.

The eastern massasauga (Photograph 3-1) is a rattlesnake that generally prefers low-lying wet woods, bogs, or marshes as wintering grounds and drier grassy areas with low shrubs during the summer.

The massasauga is most active during the warmer months of the year, from April through October. New litters are born in July or August (NatureServe 2009).

Northern riffleshell mussels occur in riffle areas of swift streams. They were reintroduced into the Detroit River in 1992 (Trdan and Hoeh 1993 as cited in NatureServe 2009); however, the northern riffleshell is currently listed as possibly extirpated in Wayne County (NatureServe 2009).

The Michigan Natural Features Inventory of state-listed species of concern, endangered, threatened, and probably extirpated species within Wayne County contains 46 animal species and 62 plant species (Michigan State University Extension 2010). The complete 2009 Michigan Natural Features Inventory list for Wayne County can be found in Appendix B. Of these 108 species, Henslow's sparrow (*Ammodramus henslowii*), grasshopper sparrow (*Ammodramus savannarum*), peregrine falcon (*Falco peregrinus*), dickcissel (*Spiza americana*), and western meadowlark (*Sturnella neglecta*) may use the proposed tower area for foraging habitat. None of these species were observed during the site survey in May 2010.

3.5.6 Environmental Consequences

3.5.6.1 No Action Alternative

No additional impacts are expected to occur on protected species from the No Action Alternative, as the proposed tower would not be constructed. Impacts on protected species as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.5.6.2 Proposed Action Alternative

No Federally listed protected species occur within or near the proposed tower site, as the appropriate habitat does not exist within the impact area of the Proposed Action Alternative. Five of the state-listed species (Henslow's sparrow, grasshopper sparrow, peregrine falcon, dickcissel, and western meadowlark) may use the proposed tower area and surrounding grassland for foraging habitat. As all five are birds, CBP anticipates that pre-construction migratory bird surveys would be conducted at the proposed tower site if construction would begin within migratory bird nesting season (March 15 through August 31) and would include these species. The habitat available for foraging is of marginal quality because the grass is mowed frequently. The grass seldom reaches seeding stage and does not reach a height sufficient to offer cover to small mammals, limiting food sources for both the seed eaters (i.e., sparrows, western meadowlark, dickcissel) and the falcon. Therefore, CBP has determined that no impacts or any Federal or state listed species would occur as a result of the Proposed Action Alternative.

3.6 CULTURAL RESOURCES

3.6.1 Cultural Overview

The cultural overview of the project region was described in detail in the August 2009 EA and is incorporated herein by reference (CBP 2009a). Section 106 of the National Historic Preservation Act (NHPA) requires the USBP to identify and assess the effects of its actions on cultural resources.

3.6.2 Cultural History

The cultural history of the project region was described in detail in the August 2009 EA and is incorporated herein by reference (CBP 2009a). Briefly, prehistoric occupation in the United States is generally divided into three major periods that vary regionally: the Paleo-Indian Period, dating from circa 12,000 B.C. to circa 10,000 B.C., the Archaic Period (circa 8,000 B.C. to circa 0 B.C.), and the Woodland Period (circa 0 to 1600). These periods are commonly subdivided into smaller temporal phases based on particular characteristics of the artifact assemblages encountered in each of the archaeological regions of the United States. The prehistoric periods and corresponding phases are defined by the presence of particular diagnostic artifacts such as projectile points, certain types of pottery, and occasionally, particular site locations. For the Historic Period, documentary information more often is used to distinguish certain phases; nevertheless, particular artifacts also can be used to recognize certain historic affiliations.

3.6.3 Previously Recorded Properties

A search of the Historic Sites Online of the Michigan Historical Center was conducted in May 2010. The following discussion summarizes the three historic properties listed on the NRHP located within a 0.25-mile radius of the proposed tower site. The locations of these properties were depicted previously in Figure 2-1.

The Russell A. Alger, Jr. House (32 Lakeshore Drive) is an Italian Renaissance style mansion built in 1910, and is significant as a major work of the nationally prominent architect, Charles Adam Platt of New York. Alger was the son of Michigan's Governor Russell Alger and was one of the founders of the Packard Motor Car Company. He resided in this home, known as the Moorings, from 1910 until his death in 1930. In 1949, the estate was donated to the Grosse Pointe War Memorial Fund for use as a community cultural center (Johnson 2010).

The Grosse Pointe Memorial Church (16 Lakeshore Drive) was constructed between 1923 and 1927 with an education wing added in 1962. It is a fine example of the late Gothic Revival style. It was designed by a noted Detroit architect, W.E.N. Hunter. The church contains significant wood carvings by German carver Alois Lang and stained glass windows by the Willet Studios of Philadelphia (Johnson 2010).

The Beverly Road Historic District (23 through 45 Beverly Road) is comprised of 15 residential buildings between Lakeshore Drive and Grosse Pointe Boulevard. It covers the original area of the Beverly Park Subdivision, which was platted by Henry B. Joy in 1911. It was one of the earliest upper-class subdivisions in Grosse Pointe, and was occupied by prominent company executives, businessmen, and lawyers. The homes are primarily large in scale and have complementary garages, which are characteristic of early streetcar suburbs. The homes were designed by some of Detroit's premiere architects in the period revival styles popular at that time (Johnson 2010).

The proposed tower location is at the Grosse Pointe Athletic Club, which is also known as the Grosse Pointe Club or the "Little Club." It is an exclusive social club where wealthy Detroiters and Grosse Pointers have gathered since the 1880s. The original clubhouse was replaced in 1927 by the current Colonial Revival style structure. The Grosse Pointe Club is eligible for listing in the NRHP under criterion A for its history associated with social clubs of Grosse Pointe and

criterion C for its architecture and design by Robert O. Derrick. This may be the only clubhouse designed by Derrick. The original design is still evident and the rear porches were enclosed and connected over 50 years ago. The alterations to the building that occurred less than 50 years ago include the addition to the front entrance of the building, the new screened enclosure at the rear, alteration of some arched windows at the lower level, and installation of sliding glass doors at the upper level to access the added deck. The siding, painted brick, and remaining windows appear to be original to the building (Johnson 2010).

3.6.4 Environmental Consequences

3.6.4.1 No Action Alternative

No additional adverse effects are expected to occur on cultural resources from the No Action Alternative, as the proposed tower would not be constructed. Due to the execution of a Memorandum of Agreement with Michigan SHPO and the Advisory Council on Historic Preservation dated 6 November 2009, there were no adverse effects on historical properties from the implementation of the Detroit Sector SBI*net* Project previously addressed in the August 2009 EA and November 2009 SEA (CBP 2009a and 2009b).

3.6.4.2 Proposed Action Alternative

No known prehistoric cultural resources are located within the footprint of the proposed tower. In general, the area where the tower would be constructed has been previously disturbed from urban development. As a result, no adverse effects on prehistoric cultural resources are anticipated from the implementation of the Proposed Action Alternative.

Reviews of the records and databases at the Michigan Historical Center indicated that there are two historic structures and a Historic District within 0.25 mile of the proposed tower site. Once constructed, in accordance with the finding of the Michigan SHPO, the tower would have no adverse effects on the viewsheds of the historic properties due to the topography, vegetation, and other buildings in the area (Johnson 2010). Therefore, no adverse effects on historical properties would occur from the Proposed Action Alternative.

CBP coordinated this project in accordance with NHPA Section 106 with the Michigan SHPO. During development of the December 2010 draft EA, the Michigan SHPO, upon reviewing the Section 106 materials, issued a non-concurrence opinion regarding the proposed tower at the Grosse Pointe Athletic Club. The Michigan SHPO determined that the proposed tower would have potentially adverse effects on the historic viewshed of the Grosse Pointe Athletic Club, a property which the SHPO believed to be eligible for listing in the NRHP, and that such effects would diminish the integrity of the property's significant historic features.

CBP conducted further consultations with the SHPO, pursuant to 36 CFR §800.6, to avoid, minimize or mitigate adverse effects. Other previously reviewed alternative sites were unavailable for the purpose of constructing a tower, or were not operationally feasible. At the Michigan SHPO's request, SBI*net* submitted a case study outlining efforts to find and review another site for operational suitability that would also have the least potential adverse impact on historic properties. Investigations into tower and tower site modifications included review of tower camouflage options and tower height alternatives.

In December 2010, in accordance with 36 CFR §800.6(a)(4), CBP made information regarding the SHPO's findings available to the public (see Appendix A) and provided the public with the opportunity to express their views on resolving adverse effects of the project via the draft SEA during the 30-day public comment period, December 9, 2010 to January 9, 2011. Pursuant to 36 CFR §800.11(e), viewpoints provided by consulting parties and the public were made available to the Michigan SHPO as part of the case study on potential impacts of a tower on historic properties. CBP proposed mitigations of potential impacts on historic properties, which included a limited tower height of 60 feet, a requirement that the tower be set back from the waterfront, painting the tower in accordance with the wishes of the Grosse Pointe Club representatives, and installation of a series of plantings/landscaping around the tower to help screen it from view after its construction, which would be carried out in accordance with plans developed by a landscape professional in consultation with the Grosse Pointe Club.

These mitigation actions were approved by the Michigan SHPO and are outlined in the Michigan SHPO's May 2, 2011 letter to CBP. The mitigations are prerequisites for construction and operation of a tower on the Grosse Pointe Athletic Club property. These mitigation actions also are required to support the Michigan SHPO's finding that the proposed tower construction will have no adverse effect on the Grosse Pointe Club which would otherwise meet the criteria for listing in the National Register of Historic Places (see May 2, 2011 letter from Brian D. Conway, State Historic Preservation Officer, Michigan State Housing Development Authority, SHPO, Appendix A).

3.7 AIR QUALITY

3.7.1 Affected Environment

National Ambient Air Quality Standards (NAAQS) represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. NAAQS were fully described in the August 2009 EA and are incorporated herein by reference (CBP 2009a).

Areas that do not meet these NAAQS standards are called non-attainment areas or maintenance areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects.

A conformity analysis determines whether a Federal agency's project is subject to a determination of conformance with a State Implementation Plan if the project is proposed in an area of non-attainment or maintenance regarding NAAQS for constituent pollutants. It requires the responsible Federal agency to evaluate the nature of the Proposed Action Alternative and associated air pollutant emissions, calculate emissions as a result of the Proposed Action Alternative, and mitigate emissions if *de minimis* thresholds are exceeded.

The proposed tower site is located in Wayne County which is a non-attainment area for particulate matter smaller than 2.5 microns (PM-2.5) (U.S. Environmental Protection Agency [USEPA] 2010). Air emissions from internal combustion engines produce volatile organic compounds and nitrogen oxides, which are precursor constituents that react with oxygen in the

atmosphere to create PM-2.5. PM-2.5 are also aerosols which refer to particles and the gas together. Sources of PM-2.5 can be man-made or natural. Human activities, such as the burning of fossil fuels in vehicles, power plants, and various industrial processes also generate significant amounts of aerosols. Increased levels of fine particles in the air are linked to health hazards such as heart disease, altered lung function, and lung cancer.

Greenhouse Gases and Climate Change

Global climate change refers to a change in the average weather on the earth. Greenhouse Gases (GHG) are gases that trap heat in the atmosphere. They include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), fluorinated gases including chlorofluorocarbons (CFC) and hydrochlorofluorocarbons (HFC), and halons, as well as ground-level ozone (California Energy Commission 2007).

The major GHG-producing sectors in society include transportation, utilities (e.g., coal and gas power plants), industry/manufacturing, agriculture, and residential. End-use sector sources of GHG emissions include transportation (40.7 percent), electricity generation (22.2 percent), industry (20.5 percent), agriculture and forestry (8.3 percent), and other (8.3 percent) (California Energy Commission 2007). The main sources of increased concentrations of GHG due to human activity include the combustion of fossil fuels and deforestation (CO_2), livestock and rice farming, land use and wetland depletions, landfill emissions (CH_4), refrigeration system and fire suppression system use and manufacturing (CFC), and agricultural activities, including the use of fertilizers (California Energy Commission 2007).

Final Mandatory GHG Inventory Rule

In response to the Consolidation Appropriations Act (House Resolution 2764; Public Law 110–161), USEPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires large sources that emit 27,578 tons or more per year of GHG emissions to report GHG emissions in the United States, collect accurate and timely emissions data to inform future policy decisions, and submit annual GHG reports to the USEPA. The final rule was signed by the Administrator on September 22, 2009, published on October 30, 2009, and made effective December 29, 2009.

Executive Order 13514

EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, signed on October 5, 2009, directs Federal agencies to reduce GHG emissions and address climate change in NEPA analysis. It expands upon the energy reduction and environmental performance requirements of EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*. It identifies numerous energy goals in several areas, including GHG management, management of sustainable buildings and communities, and fleet and transportation management.

GHG Threshold of Significance

The CEQ provided draft guidelines for determining meaningful GHG decision-making analysis. The CEQ GHG guidance is currently undergoing public comment at this time; however, the draft guidance states that if the Proposed Action would be reasonably anticipated to cause direct emissions of 27,578 tons or more of CO_2 GHG emissions on an annual basis, agencies should

consider this an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public. For long-term actions that have annual direct emissions of less than 27,578 tons of CO_2, CEQ encourages Federal agencies to consider whether the action's long-term emissions should receive similar analysis. CEQ does not propose this as an indicator of a threshold of significant effects, but rather as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate NEPA analysis for agency actions involving direct emissions of GHGs (CEQ 2010).

3.7.2 Environmental Consequences

3.7.2.1 No Action Alternative

No additional impacts are expected to occur on air quality from the No Action Alternative, as the proposed tower would not be constructed. Impacts on air quality as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.7.2.2 Proposed Action Alternative

Temporary and minor increases in air pollution and GHG would occur from the use of construction equipment (combustible emissions) and the disturbance of soils (fugitive dust) during construction of the new tower. The following paragraphs describe the air calculation methodologies utilized to estimate air emissions produced by the Proposed Action Alternative.

Air pollutant and GHG emissions relative to the Proposed Action Alternative were calculated using the same methods and assumptions as described in the August 2009 EA, and are incorporated herein by reference (CBP 2009a). The total air quality emissions were calculated for the construction activities to compare to the General Conformity Rule. Summaries of the total emissions for the Proposed Action Alternative are presented in Table 3-1. Details of the analyses are presented in Appendix C.

Table 3-1. Total Air Emissions (tons/year) from the Proposed Action Alternative Construction versus the *de minimis* Threshold Levels

Pollutant	Total (tons/year)	*de minimis* Thresholds (tons/year)[1]
Carbon monoxide	1.86	NA
Volatile Organic Compounds	0.40	100
Nitrogen oxides	3.49	100
PM-10	0.72	NA
PM-2.5	0.32	100
Sulfur Dioxide	0.43	NA
CO_2 GHG	1,420	25,000

Source: 40 CFR 51.853 and GSRC model projections.
[1] Note that Wayne County is in non-attainment for PM-2.5.

As can be seen from the table above, the proposed construction activities do not exceed Federal *de minimis* thresholds for NAAQS and GHG, and thus, do not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state

implementation plans, there will be no significant impacts on air quality from the implementation of the Proposed Action Alternative.

During the construction of the proposed project, proper and routine maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods would be implemented to minimize fugitive dust. In particular, wetting solutions would be applied to construction areas to minimize the emissions of fugitive dust. By using these environmental design measures, air emissions from the Proposed Action Alternative would be temporary and would not significantly impair air quality in the region.

3.8 NOISE

3.8.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (i.e., hearing loss, damage to structures) or subjective judgments (e.g., community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as sound level. The threshold of human hearing is approximately 0 dB, and the threshold of discomfort or pain is around 120 dB. Noise was discussed in the August 2009 EA and the November 2009 SEA and is incorporated herein by reference (CBP 2009a and 2009b). The proposed tower site is located near sensitive noise receptors such as residential homes, churches, and recreational areas.

3.8.2 Environmental Consequences and Mitigation Measures

3.8.2.1 No Action Alternative

No additional impacts are expected to occur on the ambient noise levels from the No Action Alternative as the proposed tower would not be constructed. Impacts on the ambient noise levels as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.8.2.2 Proposed Action Alternative

The construction of the new tower would require the use of common construction equipment. Table 3-2 describes noise emission levels for construction equipment which range from 76 A-weighted decibels (dBA) to 84 dBA at a distance of 50 feet (Federal Highway Administration [FHWA] 2007).

Assuming the worst case scenario of 84 dBA, the noise model projected that noise levels of 84 dBA from an identified source (i.e., bulldozer) would have to travel 450 feet before the noise would be attenuated to an acceptable level of 65 dBA. To achieve an attenuation of 84 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 140 feet.

The Grosse Pointe Athletic Club and the adjacent properties would be exposed to noise emissions that are unacceptable during tower excavation activities. The main clubhouse and a portion of the west wing of the Russell Alger House/Grosse Pointe War Memorial are located

within the 65 dBA and 75 dBA noise contour created by the construction equipment. In addition, residences along Berkshire Place would experience noise levels near 75 dBA during construction.

Table 3-2. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances[1]

Noise Source	50 feet	100 feet	200 feet	500 feet	1000 feet
Backhoe	78	72	68	58	52
Crane	81	75	69	61	55
Dump truck	76	70	64	56	50
Excavator	81	75	69	61	55
Front-end loader	79	73	67	59	53
Concrete mixer truck	79	73	67	59	53
Pneumatic tools	81	75	69	61	55
Auger drill rig	84	78	72	64	58
Bulldozer	82	76	70	62	56
Generator	81	75	69	61	55

Source: FHWA 2007 and GSRC

[1] The dBA at 50 feet is a measured noise emission (FHWA 2007). The 100- to 1,000-foot results are modeled estimates (California Department of Transportation 1998).

Noise generated by heavy construction equipment would be intermittent and last 1 to 2 weeks to excavate and prepare the foundation to install the tower, after which noise levels would return to ambient levels. Therefore, the noise impacts from construction activities would be short-term and minor and would not significantly impact the noise environment.

3.9 RADIO FREQUENCY ENVIRONMENT

3.9.1 Affected Environment

The radio frequency (RF) environment was discussed in the August 2009 EA and is incorporated herein by reference (CBP 2009a). In summary, all frequencies used by CBP would be coordinated through the Federal Communications Commission (FCC) and National Telecommunications and Information Administration (NTIA) as required in 40 CFR Part 2 Sections 2.103 Federal Use of non-Federal Frequencies and Section 2.107 Radio Astronomy.

3.9.2 Environmental Consequences

3.9.2.1 No Action Alternative

No additional impacts are expected from the No Action Alternative, as the proposed tower would not be constructed. Impacts due to the increased transmission of RFs as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.9.2.2 Proposed Action Alternative

With the implementation of the Proposed Action Alternative, the tower equipped with radio wave and microwave communication systems would be installed for use by CBP. As with any RF transmitter, all of these systems would emit RF energy and electromagnetic radiation. A potential for adverse effects would occur; however, any adverse effects on human safety and wildlife would be unlikely due to the minimal exposure potential associated with the equipment

used and the elevated locations in which they would be positioned on the towers at approximately 40 to 60 feet.

Transmitters and sensors associated with the SBI*net* Detroit project would operate below 30 gigahertz. Installation and operation of RF-emitting equipment would be performed by qualified workers operating under applicable Occupational Safety and Health Administration (OSHA) standards. Therefore, likelihood of exposure to adverse levels of RF radiation is low. The RF environment created by the installation, operation, and maintenance of the communication systems on the proposed towers would not result in significant adverse impacts on human safety or the natural and biological environment. All frequencies used by CBP would be coordinated through the FCC and NTIA as required by NTIA regulations.

The RF energy emitted by the data and communications systems in the Proposed Action Alternative are well below the maximum possible exposure (MPE) limits as described by Kelly (2007). Communication systems would be installed on the top of the proposed towers, approximately 40 or 60 feet off the ground and therefore, positioned at a safe operating distance from any humans or wildlife (The Boeing Company 2008). Thus, maintenance and operational personnel working within the secure tower site would not be exposed to any RF energy that exceeds MPE limits set by the IEEE (Institute of Electrical and Electronics Engineers) (IEEE C95.1).

Though greater research is required to have a better understanding of the effects of RF energy on avian or other nocturnal flying species, the potential effects on passing birds is expected to be negligible as well. Any disorientating effect, if experienced, would be short-term and would occur only at close distances to the antennae.

3.10 UTILITIES AND INFRASTRUCTURE

3.10.1 Affected Environment

The entire project area is serviced by the DTE Energy power company. Power to the towers within the proposed SBI*net* Detroit Project area would be from nearby commercial power grids. As required by the Proposed Action Alternative, power would be extended from the service or secondary pole to the proposed tower utilizing either overhead lines or lines buried within conduit.

It is assumed that new power lines would be installed within the surveyed utility corridors. If it is necessary to deviate from either the established road right-of-way or the utility corridors, then biological and archaeological monitors would be utilized to ensure compliance with NHPA Section 106, Endangered Species Act, Migratory Bird Treaty Act, Clean Water Act, and all applicable mitigation measures and BMPs identified in this SEA. In addition, supplemental NEPA documentation might be required. Auxiliary power for each tower site would be provided by a battery backup system.

3.10.2 Environmental Consequences

3.10.2.1 No Action Alternative

No additional impacts are expected to occur on utilities from the No Action Alternative, as the proposed tower would not be constructed. Impacts on utilities as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.10.2.2 Proposed Action Alternative

Negligible demands on power utilities are expected. The fully operational tower would draw approximately 3,650 kilowatt-hours per month, which is approximately twice as much as the average residential-use frost-free deep freezer (1,835 kilowatt-hours per month) (Springfield, Illinois City Water, Light and Power 2010). All of the proposed towers and equipment installations of the SBI*net* Detroit Project would utilize the local commercial power and would not significantly impact the local power grid.

3.11 ROADWAYS AND TRAFFIC

3.11.1 Affected Environment

The proposed tower site is located within a privately owned recreational facility, the Grosse Pointe Athletic Club, in eastern Wayne County. Access to the proposed tower site would occur via existing roadways. The Grosse Pointe Athletic Club is located at the terminus of Berkshire Place at the lakefront at Lake St. Clair. The tower construction site would be accessed via Lakeshore Drive, Berkshire Place, and existing parking lots.

3.11.2 Environmental Consequences

3.11.2.1 No Action Alternative

No additional impacts are expected to occur on roadways and traffic from the No Action Alternative, as the proposed tower would not be constructed. Impacts on roadways and traffic as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.11.2.2 Proposed Action Alternative

Construction and staging for the foundation and tower would create minor short-term impacts on roadways and traffic within the project region. An increase of vehicular traffic would result from supply materials and work crews at the tower site for a short period of time. The tower would be constructed within a 14-day work period. The initial construction phase would include creation of a staging area within the proposed tower footprint for materials and equipment storage. Once a staging area is established, traffic near each construction site would be from ingress and egress of construction activities.

There are no anticipated long-term impacts on traffic from the installation of the tower. Once construction work is completed, occasional maintenance visits to the site would be required. These visits would not increase normal traffic activity locally or regionally.

3.12 AESTHETIC AND VISUAL RESOURCES

3.12.1 Affected Environment

The proposed tower site is in a developed area where businesses, industries, residences, and recreational facilities are present. For this reason, the aesthetic and visual qualities of the site are limited. The proposed tower site is located at the eastern corner of the Grosse Pointe Athletic Club property. The Athletic Club is a privately owned club, which is primarily used for social events, lake access, and non-contact water access, such as boating.

3.12.2 Environmental Consequences

3.12.2.1 No Action Alternative

No additional impacts are expected to occur on aesthetics and visual resources from the No Action Alternative, as the proposed tower would not be constructed. Impacts on aesthetics and visual resources as discussed in the August 2009 EA and November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.12.2.2 Proposed Action Alternative

The predominant impacts on the aesthetic and visual resources from the Proposed Action Alternative would occur at the Grosse Pointe Athletic Club and neighboring properties. The tower would be located in an area where nearby trees and landscaping would limit the view of the tower from the Athletic Club and neighboring properties, and thus, would not significantly impact the aesthetic qualities in the surrounding areas.

Temporary aesthetic impacts during the construction phase of the project would occur at the proposed tower construction site, and these impacts would include the presence of construction equipment. Areas that would be temporarily disturbed during construction of the tower would be re-vegetated using native plant species or species which would coordinate with the existing landscaping.

3.13 HAZARDOUS MATERIALS

3.13.1 Affected Environment

Solid and hazardous wastes are regulated in Michigan by a combination of laws promulgated by the Federal, state and regional Councils of Government. CBP performs a Phase I Environmental Site Assessment (Phase I ESA) for all state and private properties that are being considered for lease or purchase. A Phase I ESA allows CBP to know if a property is likely to have any recognized environmental conditions that would indicate the possibility of soil, surface water or groundwater contamination within the property's boundaries. For all proposed tower sites that were not evaluated in a Phase I ESA, a Transaction Screen was performed. Transaction Screens included searches conducted on the USEPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). In addition, GSRC contracted Environmental Data Resources Inc. (EDR) to produce radius reports which examine Federal and state environmental databases that track activities associated with hazardous waste and incidents that have resulted in major environmental impairment. These databases are prepared and maintained by various Federal and state environmental agencies, such as the USEPA and the

MDEQ. CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities, including sites that are on the National Priorities List (NPL) or being considered for the NPL. CERCLIS and radius reports search found no active NPL sites within a 1-mile radius of the proposed tower site (EDR 2010).

Field pedestrian site surveys for the proposed sites were performed by GSRC in May 2010. Site surveys were conducted according to the American Society for Testing and Materials (ASTM) guidelines (ASTM E1527-05), which define good commercial and customary practices in the United States for conducting a Phase I ESA of a parcel of commercial real estate. ASTM E1527-05 pertains to a range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. 9601 and petroleum products (ASTM 2008).

The EDR report indicated that the proposed tower site is not listed in any state or Federal environmental database for impacts by hazardous materials, waste or petroleum products. No recognized environmental conditions were indicated on the site (EDR 2010).

Nearby properties were listed as follows:

- **Grosse Pointe Athletic Club, 6 Berkshire Place:** The Grosse Pointe Athletic Club is the location of the proposed tower site. The Club is listed in the Resource Conservation and Recovery Act-Conditionally Exempt Small Quantity Generator (CESQG) database. The types of waste stored and produced at the Athletic Club include batteries, lamps, pesticides, thermostats, devices containing elemental mercury, mercury thermometers, and mercury switches. No violations were found on the property.

- **Stamper and Co., 335 Fisher Road:** This site is also listed as Fisher and Maumee Automotive and is located within 0.5 mile of the proposed tower site. It is listed in the underground storage tank (UST) and leaking underground storage tank (LUST) database. Leaks occurred on March 29, 1993, releasing gasoline/diesel and on December 15, 1995, releasing used oil. Both leaks have been confirmed as closed. There have been four USTs removed from the site since 1993. The USTs stored gasoline, diesel and used oil. No further environmental risk is present at this site.

- **Farm Fresh, 355 Fisher Road:** This site is a grocery with a fueling island and is located within 0.5 mile of the proposed tower site. It is listed in the LUST database. The leak occurred on July 19, 2006, releasing gasoline. Remediation has not yet been confirmed for this leak, so the database reports its status as open. No further environmental risk is present at this site.

3.13.2 Environmental Consequences

3.13.2.1 No Action Alternative

No additional impacts from hazardous wastes are expected from the No Action Alternative as the proposed tower would not be constructed. Impacts from hazardous wastes as discussed in the August 2009 EA and the November 2009 SEA would continue as the Detroit Sector SBI*net*

Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.13.2.2 Proposed Action Alternative

Construction Activities

During construction of the new tower, the potential exists for POL contamination at the construction site due to storage of POL material for maintenance and refueling of vehicles and fuel storage tanks. However, these activities would include primary and secondary containment measures. Clean-up materials (e.g., oil mops) would be maintained at each site for appropriate spill response and cleanup in case an accidental spill occurs. Drip pans would be provided for the power generators and other stationary equipment to capture any POL that is accidentally spilled during maintenance activities or leaks from equipment. To ensure oil pollution prevention, an SPCCP would be in place prior to the start of construction activities as outlined in Section 5.

Portable sanitary facilities would be provided during construction activities and waste products would be collected and disposed of by licensed contractors. Disposal contractors would use only established roads to transport equipment and supplies, and all waste would be disposed of in compliance with Federal, state, and local regulations, in accordance with contractors' permits.

With implementation of these practices, the Proposed Action Alternative would not result in a significant environmental or public exposure to any hazardous materials.

Maintenance and Operations Activities

All solid and hazardous wastes and materials, including universal waste (such as batteries, fluorescent light bulbs, etc.), would be handled in accordance with applicable Federal and state laws and guidelines governing these items.

3.14 SOCIOECONOMICS

3.14.1 Affected Environment

Population and Demographics

The ROI of the Proposed Action Alternative consists of Wayne, Michigan. The population and racial mixes of Michigan and across the ROI are presented in Table 3-3. Population in Wayne County was 1,980,262 in the 3-year census ending in 2008 (U.S. Census Bureau 2008a and 2008b). There was an 8.8 percent population decrease in Wayne County between 1990 and 2009 (U.S. Census Bureau 1990, 2008a, and 2008b). About 41 percent of Wayne County reported being African American in the 3-year census ending in 2008, while only 4.9 percent of persons reported having Hispanic origin.

Table 3-3. 3-Year Census Ending in 2008 Population and Race Estimates within the Region of Influence

	Michigan	Wayne County
White	7,994,783 (79.6%)	1,041,010 (52.6%)
African American	1,403,987 (14.%)	806,991 (40.8%)
Native American	51,894 (0.5%)	5,660 (0.3%)
Asian	232,937 (2.3%)	48,172 (2.4%)
Native Hawaiian	2,372 (<0.1%)	0
Some Other Race	162,499 (1.6%)	45,265 (2.3%)
Two or More Races	197,225 (2.0%)	32,915 (1.7%)
Hispanic Origin	406,214 (4.0%)	97,805 (4.9%)
Total Population	10,045,697	1,980,262

Source: U.S. Census Bureau 2008a, 2008b.

Employment and Income

Table 3-4 summarizes the total number of jobs in the ROI and Michigan.

Table 3-4. Total Number of Jobs within the Region of Influence

Location	1996	2006	Percent Change
Michigan	5,247,019	5,397,807	2.9%
Wayne County	995,952	935,377	-6.1%

Source: U.S. Bureau of Economic Analysis 1996a, 1996b, 2008a, 2008b.

Wayne County saw a decrease of 6.1 percent in the number of jobs over a 12-year period ending in 2008 (U.S. Bureau of Economic Analysis 1996a, 1996b, 2008a, and 2008b; see Table 3-4). The government and government enterprises sector provided 117,686 jobs in 2008, while the largest industry was health care and social assistance (132,600 jobs), followed by state and local jobs (97,802) and manufacturing (88,033 jobs). The unemployment rate for Wayne County and the State of Michigan has risen between 9.7 and 10 percentage points since 1996 (Table 3-5).

Table 3-5. Unemployment Rate (Percent) within the Region of Influence

Location	1996 Unemployment Rate	2010 Unemployment Rate
Michigan	4.9	14.6
Wayne County	6.1	16.1

Source: Michigan Labor Market Information 2010a and 2010b.

The 2008 per capita personal income (PCPI) for Wayne County was $32,094 and ranked 23rd in the state (Table 3-6; U.S. Bureau of Economic Analysis 2008c). The PCPI was 92 percent of the state average ($34,953) and 80 percent of the National average ($40,166). The 1996 to 2006 average annual growth rate of the counties in the ROI was 2.0 percent for Wayne county, lower than both the average annual growth rate for the state (2.8 percent) and the Nation (5 percent) (U.S. Bureau of Economic Analysis 2008c).

Table 3-6. Income for the Nation, Michigan, and Wayne County

Location	2006 Per Capita Personal Income (PCPI)	PCPI 1996-2006 Average Annual Growth Rate (percent)
United States	$40,166	5.0
Michigan	$34,953	2.8
Wayne County	$32,094	2.0

Sources: U.S. Bureau of Economic Analysis 2008c

Housing

The total number of housing units in the ROI in the 3-year census ending 2008 was 838,760, with 16.1 percent vacancy (Table 3-7). There is a higher percentage of renter-occupied houses in the ROI than in the state.

Table 3-7. Housing Units by Location (3-year Census Ending 2007)

Location	Vacant Housing Units	Occupied Housing Units		Total Housing Units
		Owner	Renter	
Michigan	680,579 (15.0%)	2,871,698 (74.7%)	972,883 (25.3%)	4,525,160
Wayne County	135,335 (16.1%)	429,820 (68.2%)	223,605 (31.8%)	838,760

Source: U.S. Census Bureau 2008a, 2008b.

3.14.2 Environmental Consequences

3.14.2.1 No Action Alternative

No additional impacts are expected to occur on socioeconomics of the ROI from the No Action Alternative, as the proposed towers would not be constructed. Impacts on socioeconomics as discussed in the August 2009 EA and the November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.14.2.2 Proposed Action Alternative

The labor for the Proposed Action Alternative would be provided by private contractors, resulting in only temporary increases in the population of the project area. When possible, materials and other project expenditures would predominantly be obtained through merchants in the local community, resulting in minor, temporary economic benefits. All construction activities would be limited to daylight hours only, to the maximum extent practicable. Safety buffer zones would be designated around the construction site to ensure public health and safety. No displacement of residential or commercial properties would result from this action. Adequate housing and contracting resources are available in the ROI for private contractor involvement in constructing the proposed tower. Only minor, direct impacts on housing or employment in the project areas would result from temporary, short-term increases in the tower construction workforce that would last for the approximate 14-day construction work schedule. No changes to local employment rates, poverty levels, or local incomes would occur as a result of this program.

The increased surveillance and improved CBP response times to apprehend cross-border violations would reduce this illegal activity in the project area. Reductions in illegal traffic resulting from increased surveillance from the implementation of the SBI*net* Detroit Project are expected to reduce crime in the area and enhance the safety of United States residents.

3.15 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

3.15.1 Affected Environment

Environmental justice and the protection of children was discussed in the August 2009 EA, and that discussion is incorporated herein by reference (CBP 2009a). Essentially, EO 12898 and 13045 require the CBP to identify and address disproportionately high and adverse effects of its programs, policies, and activities on minority and low-income populations, to identify and assess environmental health risks and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

3.15.2 Environmental Consequences

3.15.2.1 No Action Alternative

No additional impacts are expected from the No Action Alternative as the proposed tower would not be constructed. Environmental consequences as discussed in the August 2009 EA and the November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.15.2.2 Proposed Action Alternative

The Proposed Action Alternative would have a net beneficial effect on the ROI, regardless of race and income level. The Proposed Action Alternative would not result in disproportionately high or adverse environmental health or safety impacts on minority or low-income populations or children. This conclusion is based on the fact that the project area is not in proximity to any low-income or minority populations, and there would be no displacement of persons (minority, low-income, children, or otherwise) as a result of implementing the Proposed Action Alternative.

Safety zones would be established to ensure that no unauthorized persons, including children, would enter the construction site.

3.16 SUSTAINABILITY AND GREENING

3.16.1 Affected Environment

In accordance with EO 13423 – Strengthening Federal Environmental, Energy, and Transportation Management (72 FR 3919), CBP would incorporate practices in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient and sustainable manner in support of their mission. CBP implements practices throughout the agency to: 1) improve energy efficiency and reduce greenhouse emissions, 2) implement renewable energy projects, 3) reduce water consumption, 4) incorporate sustainable environmental practices such as recycling and the purchase of recycled-content products, and 5) reduce the quantity of toxic and hazardous materials used and disposed of by the agency. Additionally, new facility construction would comply with the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings* set forth in the *Federal Leadership in High Performance and Sustainable Memorandum of Understanding*. DHS will also reduce total consumption of petroleum products as set forth in the EO and use environmentally sound practices with respect to the purchase and disposition of electronic equipment.

3.16.2 Environmental Consequences

3.16.2.1 No Action Alternative

No additional impacts are expected from the No Action Alternative, as the proposed tower would not be constructed. Environmental consequences as discussed in the August 2009 EA and the November 2009 SEA would continue as the Detroit Sector SBI*net* Project is implemented. Those impacts are incorporated herein by reference (CBP 2009a and 2009b).

3.16.2.2 Proposed Action Alternative

Due to the nature of the Proposed Action Alternative, the opportunities to facilitate the goals of EO 13423 were limited. However, CBP intends to attain the goal of reducing petroleum-based product use with a Fleet Management Plan facilitated through CBP's Asset Management Division. This project would adhere to this management plan.

SECTION 4.0
CUMULATIVE IMPACTS

4.0 CUMULATIVE IMPACTS

The NEPA regulations define cumulative impacts as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR §1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time by various agencies (Federal, state, and local) or individuals. Informed decision making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

This cumulative impacts analysis summarizes expected environmental effects from the combined impacts of past, current, and reasonably foreseeable future projects within the proposed action areas. Projects were identified for this analysis by reviewing CBP documents, news/press releases and published media reports, and through consultation with planning and engineering departments of local governments, and state and Federal agencies, including DHS/CBP/OTIA project proponents. Projects not planned in proximity to the proposed tower sites would not contribute to cumulative impacts within the project area and were not considered. Since the ROI for the SBI*net* Detroit Sector Project is the lakefront of Lake St. Clair and the St. Clair River in Macomb, St. Clair and Wayne counties, Michigan, the following analyses will address cumulative impacts only within the northeastern portion of USBP Detroit Sector.

4.1 REASONABLY FORESEEABLE CBP PROJECTS WITHIN THE DETROIT SECTOR

CBP has been conducting law enforcement actions along the United States-Canada border since its inception in 1924, and has continually transformed its methods as new missions, CBV modes of operations, smuggling trends, agent needs, and National enforcement strategies have evolved. Development and maintenance of training ranges, station and sector facilities, detention facilities, and roads have affected thousands of acres with synergistic and cumulative impacts on soil, wildlife habitats, water quality, and noise.

With continued funding and implementation of CBP's environmental measures, including environmental education and training of its agents, use of biological and archaeological monitors, and restoration activities, adverse impacts of future and ongoing projects would be prevented or minimized. However, recent, ongoing, and reasonably foreseeable proposed projects will result in cumulative impacts. A list of the past, ongoing, and other proposed CBP projects within the ROI surrounding the Detroit Sector is presented in Table 4-1.

Table 4-1. Recently Completed or Reasonably Foreseeable CBP Projects within and near the Detroit Sector

Project	Approximate Acres Permanently Impacted
Construction of a new station in Northern Michigan.	30
Installation of additional RVS camera systems along Detroit River	5
Acquisition or lease of additional dock space for marine vehicles in Marysville Station Area of Operations	0.25

In addition to these projects, CBP might be required to implement other activities and operations that are currently not foreseen or not within the ROI and therefore not discussed in this document. These actions could be in response to National emergencies or security events like the terrorist attacks on September 11, 2001, or to changes in the mode of operations of CBVs.

4.2 OTHER AGENCY/ORGANIZATIONS PROJECTS

Plans by other agencies that would also affect the region's natural and human environment include various projects by Michigan Department of Transportation (MDOT), county and municipal governments. The majority of these projects would occur along existing corridors and/or within previously disturbed sites. The magnitude of the impacts would depend upon the length and width of the road right of way (ROW) and the extant conditions within and adjacent to the ROW.

Numerous projects are proposed by MDOT and Wayne County within the City of Detroit. Most of the projects occur within the current footprints of the infrastructure to be improved, in the case of road resurfacing, or within the existing ROW for road widening or improvements to highway access ramps.

Several MDOT projects were identified for 2010-2011. The majority of these projects are within the current highway or bridge ROW. Table 4-2 provides a listing of the projects planned by MDOT and some county governments which are approved for funding through the American Recovery and Reinvestment Act.

Additional projects in progress or in planning stages within the ROI include:

Blue Water Bridge Plaza Study
The Blue Water Bridge Plaza Study Area is located in the City of Port Huron and Port Huron Township, in St. Clair County, Michigan. The study area begins at the western end of the Blue Water Bridge and ends at the Interstate (I) 94/I-69 interchange approximately 2.2 miles to the west. The Blue Water Bridge provides access to destinations across Michigan, 47 other states, Mexico, and Canada. The study area includes the Black River Bridge, the Water Street/Lapeer connector interchange, the existing plaza area, and a potential location for a relocated welcome center and a plaza alternative in Port Huron Township (MDOT 2009b).

Table 4-2. List of American Recovery and Reinvestment Act Projects in the SBI*net* Detroit ROI

Responsible Agency	Project Name	Project Description	Phase
BWATC	BWATC Transit Facilities	New transit/facility terminal	T-Cap
BWATC	BWATC Transit Operating	Operate transit	T-Ops
BWATC	BWATC Transit Operating	Rural operating	T-Ops
BWATC	BWATC Job Access Project	Job Access/Reverse Commute	T-Ops
BWATC	Non-urban County	New Freedom Operating	T-Ops
BWATC	BWATC Job Access Capital	Capital for Job Access Program	T-Cap
Marysville	Cuttle Road	Reconstruct road	CON
MDOT	I-94	Crossovers for 80911	CON
MDOT	M-19	Miscellaneous bridge repairs	CON
MDOT	I-69	Road reconstruction/bridge rehabilitation	CON
MDOT	M-19	Mill and resurface	CON
MDOT	M-19	Bridge replacement over Pine River	CON
MDOT	I-94	ROW Purchase for Blue Water Bridge Plaza	PE
MDOT	I-94	ROW for Blue Water Bridge Plaza expansion	ROW
MDOT	1-69	Storm sewer separation	CON
MDOT	1-94	New Carpool lot at Gratiot	CON
Port Huron	Dove Road	Rehabilitate roadway	CON
Port Huron	Gratiot/State Alignment	Align and reconstruct	CON
St. Clair	Fred Moore Hwy/Clinton	Rehabilitate roadway	CON
St. Clair CRC	Wadhams	Rehabilitate bridge over Black River	CON
St. Clair CRC	Port Huron NAFTA Corridor Congestion Mitigation	Realign Highway, closure at railroad crossings, and new grade separation	CON
St. Clair CRC	Port Huron NAFTA Corridor Congestion Mitigation	Realign Highway, closure at railroad crossings, and new grade separation	PE
St. Clair CRC	Port Huron NAFTA Corridor Congestion Mitigation	Realign Highway, closure at railroad crossings, and new grade separation	ROW
MDOT	Bus Shelters	Construct bus shelters	T-Cap
MDOT	Bus Stop Signage	Replace bus signs	T-Cap
MDOT	Buses	Replacement and new hybrid revenue buses	T-Cap
MDOT	Communications Equipment	Purchase communications equipment and applications	T-Cap
MDOT	Facilities	Construction and Improvements	T-Cap
MDOT	Operating Transit	Transit Operations	T-Ops

Table 4-2, continued

Responsible Agency	Project Name	Project Description	Phase
MDOT	Preventive maintenance	Purchase transit maintenance equipment and parts	T-Cap
MDOT	Service and Support	Purchase service and support equipment	T-Cap
MDOT	Support Vehicles	Replacement and non-revenue service support vehicles	T-Cap
Detroit	Traffic Signal Modernization	At 29 locations on E Jefferson from Alter to Rivard	CON
Detroit	Streetscape improvements	From Randolph to St. Antoine and from Lafayette St. to Gratiot Ave.	CON
Detroit	Larned Bridge	Rehabilitate bridge	CON
Detroit	Livernois Avenue	Construct concrete median	CON
Detroit	Michigan Avenue	Streetscape Improvement	CON
Detroit	Midtown Loop	Streetscape improvement	CON
Detroit	Various Major Streets	Resurface roads	CON
Detroit	W Vernor Highway	Install mid-block crossing	CON
DTC	People Mover	Rail modernization	T-Cap
Grosse Pointe City	St. Clair Road	Resurface road	CON
Grosse Pointe Farms	Fisher Road	Resurface road	CON
Grosse Pointe Farms	Jefferson Avenue	Resurface road	CON
Grosse Pointe Shores	Vernier Road	Resurface road	CON
MDOT	Bates at Atwater Waterfront Dock	Construction of off shore warf	CON
MDOT	Bates at Atwater Waterfront Dock	Construction of off shore warf	PE
MDOT	Bates at Atwater Waterfront Dock	Terminal building expansion	CON
MDOT	I-94	Resurface road	CON
Wayne County	E 7 Mile Road	Resurface from Gratiot to Hayes Road	CON
Wayne County	Lake Shore Drive	Resurface from Moross to Verneir	CON

BWATC = Blue Water Area Transportation Commission CON = Construction
CRC = Citizen's Research Council T-Cap = Transit Capital
NAFTA = North American Free Trade Agreement T-Ops = Transit Operations
PE = Preliminary Engineering
Source: MDOT 2009a, Southeast Michigan Council of Governments 2010

The Purpose of the Blue Water Bridge Plaza for the foreseeable future is to provide safe, efficient and secure movement of people and goods across the United States-Canada border in the Port Huron area to support the economies of Michigan, Ontario, Canada, and the United States, and also to support the mobility and security needs associated with national and civil defense (MDOT 2009b). The proposed action expands the existing plaza within the City of Port Huron and brings most of the elevated plaza down to street level. This action meets all of the plaza's operational and traffic circulation needs projected through the year 2030.

St. Clair County

Development in St. Clair County is active, with recent additions or improvements in several non-residential use areas including: Industrial/Research/Hi-Tech, Office, Medical, Mixed-use, and Institutional. The 10 largest non-residential developments in St. Clair County for 2008 are included below in Table 4-3.

Table 4-3. Ten Largest Non-residential Developments in St. Clair County, Michigan in 2008

Community	Project/ Building Type	Project Name	Status	Development Type	Size (square feet)
Marysville	Industrial/ Research/ Hi-Tech	The Chrysler Group Axle Plant	UC	New	700,000
Capac	Industrial/Research /Hi-Tech	Keihin Michigan Manufacturing	C	New	120,000
Port Huron	Office	St. Clair County Mental Health Administration Offices	C	Renovation	12,592
Ira Township	Industrial/Research /Hi-Tech	PTM Building 2	C	New	65,740
Port Huron	Entertainment/ Recreational	YMCA Riverfront	C	New	62,000
Port Huron	Medical	Port Huron Hospital-New Medical Office Building	UC	New	40,000
Clay Township	Mixed-Use	Great Lakes Inn	UC	Renovation	19,852
Fort Gratiot Township	Office	Hamzavi Dermatology Clinic	C	New	18,240
Port Huron Township	Industrial/ Research/ Hi-Tech	105 24th Street	UC	Addition	15,607
Fort Gratiot Township	Institutional	Social Security Administration Building	C	New	13,600

UC = Under Construction, C = Completed
Source: Southeast Michigan Council of Governments 2009

The National Oceanic and Atmospheric Administration (NOAA) currently supports a gauge house on-site at the Algonac Water Filtration Plant. A new project proposed by NOAA and the USACE Detroit District would replace the existing structures, which are in disrepair, with new gauge houses to collect lake/river level data for overall collection for the Great Lakes Region. It is estimated that the gauge house would be maintained on-site for the next 50 years (USACE 2004).

A summary of the anticipated cumulative impacts of the Proposed Action Alternative is presented in the following sections. Discussions are presented for each of the resources described previously.

4.3 IDENTIFICATION OF CUMULATIVE EFFECTS ISSUES

4.3.1 Water, Soils, and Air

The pollution of water, soils, and air resulting from independently small actions can have additive and synergistic effects on single resources, ecosystems, and human communities when combined with the cumulative effects of similar actions in a region.

The effects of water pollution on wildlife, sensitive fish, migratory birds, Lake St. Clair and the St. Clair River riparian communities have been significant. Water quality in the river basin is affected by current and historical commercial and industrial development along both the United States and Canadian sides of the river. Planned and existing improvements to industrial and commercial practices can reduce pollutants and reduce effects on resources ecosystems, and human communities.

Each new residential or commercial development action in the ROI's river basins would likely implement mitigation measures to reduce the potential effects of pollutants associated with the handling of POLs, volatile organic compounds, and hazardous materials. Each new development would also likely comply with wastewater treatment regulations, and most would probably connect to the existing wastewater treatment system. Therefore, the point- and non-point sources of pollution created by the Proposed Action Alternative and other similar developments would not result in significant cumulative effects.

The characteristics of river basin soils create an increased potential for soil loss; however, each new development would likely be incorporated into local and regional site-specific SWPPPs. The pollution of soils, which can synergistically affect other resources and ecosystems, would also be mitigated through use of a SWPPP and associated BMPs. Therefore, the cumulative effects of the Proposed Action Alternative, when combined with other similar developments, would be minimal.

4.3.2 Floodplains

Most of the 100-year floodplain in St. Clair, Macomb, and Wayne counties is along Lake St. Clair and the St. Clair River. The land is primarily marshland, shoreline, or occupied by industrial, commercial, and private developments. The Proposed Action Alternative is not expected to result in substantial impacts on the 100-year floodplain. Federal and local laws governing floodplains limit development within the 100-year floodplain. Therefore, CBP has determined that the SBI*net* Detroit Sector Project, when combined with other similar developments, would not result in significant cumulative adverse impacts on floodplains.

4.3.3 Vegetation Communities and Wildlife

All of the proposed tower sites/camera installation sites are located in previously disturbed or developed lands. The Proposed Action Alternative and the other projects listed above are not expected to result in substantial new development of previously undisturbed lands. The

Proposed SBI*net* Detroit Sector Project would have negligible effects on vegetation and wildlife (approximately 1.21 acres of total impact) and would not create additional opportunities for the spread of invasive plants and noxious weeds. Therefore, there is a minimal potential for the Proposed Action Alternative, when combined with other similar developments, to cumulatively affect vegetation or wildlife habitats.

4.4 DEFINING CUMULATIVE EFFECTS ASSESSMENT GOALS

Two cumulative effects issues, floodplains and aesthetics, have been identified as potentially substantial. These issues are interdependent due to the role of Lake St. Clair and the St. Clair River and its high volume of recreational users. Ultimately, the construction, upgrade, operation, and maintenance of the proposed towers represent a minimal proportion of the planned and reasonably foreseeable development in northeastern Michigan, which would occur regardless of the action implemented by CBP. Therefore, relative to the baseline conditions (i.e., No Action Alternative), implementation of the Proposed Action Alternative would have a minimal cumulative effect (approximately 0.06 acre would be impacted). The entire SBI*net* Detroit Sector Project would have an impact of approximately 1.21 acre.

4.5 SUMMARY OF OTHER PROJECTS CONTRIBUTING TO CUMULATIVE EFFECTS ISSUES

The following sections describe current and proposed actions by CBP and other entities which, when combined with the Proposed Action Alternative, could result in cumulative impacts on the natural and human environment.

4.5.1 Cumulative Environmental Effects

4.5.1.1 Proposed Action Alternative

A summary of the anticipated cumulative impacts relative to the Proposed Action Alternative is presented below. These discussions are presented for each of the resources described previously.

4.5.1.2 Floodplains

The SBI*net* Detroit Sector Project would affect approximately 1.21 acres of developed/disturbed lands when combined with other CBP projects. Though the placement of the towers is within the 100- to 500-year floodplain, the amount of impervious surfaces added to the watershed would be minimal. The only impervious materials proposed are the metal tower and the cement footing, which is approximately 10 feet by 10 feet. The access roads proposed for construction consist of crushed rock or graded *in situ* materials. This action, therefore, is not expected to result in significant cumulative adverse effects when considered with other potential impacts within the floodplain.

4.5.1.3 Aesthetics

No significant cumulative impacts on visual resources would occur from implementing the Proposed Action Alternative, due in part to the small footprint of the towers and access roads and the large amount of existing industrial, commercial and residential development that exists within the vicinity of the proposed project area. The tower site selection process placed as many towers as possible in previously disturbed or developed areas or on existing structures with

appropriate views of the St. Clair River and Lake St. Clair. However, the river and lake support a high volume of recreational users during warm weather months. The Proposed Action Alternative, as well as other proposed developments, may affect the recreational quality of the ROI. Conversely, the Proposed Action Alternative may beneficially impact the recreational quality and aesthetics of the St. Clair River and Lake St. Clair by serving as a deterrent to CBVs, vandalism, littering, and other crimes. The relatively low tower heights and the lack of guy wires could also alleviate the potential for the proposed project to obstruct aesthetic vistas or otherwise impact visual resources of the project area. Additionally, most of the proposed towers would be constructed at least 3 miles apart. So, depending on topography, no single viewshed would be impacted by more than one or two towers. Construction, operation, and maintenance of the proposed towers and installation of the cameras and communications on existing structures, when considered with existing and proposed developments in the surrounding area, would not result in significant cumulative impacts on the visual quality of the region.

SECTION 5.0
MITIGATION MEASURES

5.0 MITIGATION MEASURES

Mitigation measures are those actions that can be planned or taken to alleviate the severity of an impact. It is CBP's policy to reduce impacts through a sequence of avoidance, minimization, mitigation, and compensation. This chapter describes those measures that would be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. Many of these measures have been incorporated as standard operating procedures by CBP on past projects. Mitigation measures are presented for each resource category potentially affected. These are general mitigation measures; development of specific mitigation measures would be required for certain activities implemented under the Proposed Action Alternative. The specific mitigation measures would be coordinated through appropriate agencies and land managers or administrators, as required. Mitigation measures vary and include activities such as restoration of habitat in other areas, acquisition of lands, implementation of BMPs, and are typically coordinated with the USFWS and other appropriate Federal and state resource agencies.

5.1 PROJECT PLANNING/DESIGN SENSOR AND COMMUNICATION TOWERS

The following measures were adapted from the *Interim Guidance on Siting, Construction, Operation, and Decommissioning of Communication Towers* (USFWS 2000). It should be noted, however, that currently there are no towers planned that exceed a height of 199 feet.

- CBP will minimize bird perching and nesting opportunities for new towers.
- CBP will not site towers in or near wetlands, other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. If this is not an option, mitigation will be required.
- CBP will not use guy wires for tower support to reduce the probability of bird and bat collisions.
- CBP will use security lighting for on-ground facilities and equipment that is down-shielded to keep light within the boundaries of the site.
- CBP will site, design, and construct towers and appendant elements to avoid or minimize habitat loss within and adjacent to the tower "footprint." CBP will minimize road access and fencing to reduce or prevent habitat fragmentation and disturbance, and to reduce aboveground obstacles to birds in flight.
- Where feasible, CBP will place electric power lines underground or on the surface as insulated, shielded wire to avoid electrocution of birds and bats. CBP will use recommendations of the Avian Power Line Interaction Committee (1994, 1996) for any required aboveground lines, transformers, or conductors. CBP will use raptor-protective devices on aboveground wires.
- CBP will control noxious weeds using USEPA-approved herbicides.
- If rodent populations on the perimeter of the facility are to be controlled, CBP will not use rodenticides.

- Once CBP has determined that towers are no longer needed, CBP will remove them within 12 months. CBP will restore the footprint of towers and associated facilities to pre-construction conditions.

5.2 PROJECT PLANNING/DESIGN – GENERAL

CBP will use disturbed areas or areas that will be used later in the construction period for staging, parking, and equipment storage.

CBP will develop and implement erosion control measures and appropriate BMPs before, during, and after soil-disturbing activities. To address areas with highly erodible soils, various erosion control techniques will be implemented, such as straw bales, silt fencing, aggregate materials, wetting compounds, and rehabilitation, where possible, to decrease erosion.

CBP will document any establishment of non-native plants and will implement appropriate control measures.

CBP will ensure that all construction will follow DHS Directive 025-01, *Sustainable Practices for Environmental, Energy and Transportation Management*.

A construction contractor SPCCP will be developed and implemented at construction and maintenance sites to ensure that any toxic substances are properly handled and that escape into the environment is prevented. Agency standard protocols will be used. Drip pans underneath equipment, containment zones used when refueling vehicles or equipment, and other measures are to be included.

CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for road construction and maintenance.

CBP security lighting at facilities will be designed to minimize light pollution beyond the designated security zone while achieving light levels needed for operational purposes. Security lights will not shine onto habitat areas at a level greater than 1.5 foot-candles. All security lights will be shielded from the top to prevent uplighting.

5.3 GENERAL CONSTRUCTION ACTIVITIES

CBP will clearly demarcate the perimeter of all areas to be disturbed during construction or maintenance activities using flagging or temporary construction fence, and no disturbance outside that perimeter will be authorized.

CBP will obtain materials such as gravel or topsoil from existing developed or previously used sources, not from undisturbed areas adjacent to the project area. Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

CBP water tankers that convey untreated surface water will not discard unused water within 2 miles of any aquatic or marsh habitat.

CBP storage tanks containing untreated water will be of a size that if a rainfall event were to occur, the tank (assuming open) will not be overtopped and cause a release of water into the adjacent drainages. Water storage on the project area will be in on-ground containers located on upland areas, not in washes.

CBP will contain nonhazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and will reduce the amount of disturbed area needed for waste storage.

To prevent attracting predators of protected animals, CBP will dispose of all food-related trash items such as wrappers, cans, bottles, and food scraps in closed containers and remove them daily from the project site.

Waste water is water used for project purposes that is contaminated with construction materials or from cleaning equipment and that carries oils, other toxic materials, or other contaminants as defined by state regulations. CBP will store waste water in closed containers on-site until removed for disposal. Concrete wash water will not be dumped on the ground, but will be collected and moved off-site for disposal. This wash water is toxic to aquatic life.

CBP will minimize the number of vehicles traveling to and from the project site and the number of trips per day.

If CBP construction or maintenance activities continue at night, all lights will be shielded to direct light only onto the work site and those areas necessary to ensure the safety and efficiency of the workers; the minimum foot-candles needed will be used, and the number of lights will be minimized. Any light extending beyond the construction or maintenance area will be no greater than 1.5 foot-candles.

CBP will minimize noise levels for day or night construction and maintenance.

5.4 SOILS

Vehicular traffic associated with the tower construction activities and operational support activities will remain on established roads to the maximum extent practicable. Areas with highly erodible soils will be given special consideration when designing the proposed project towers and access roads to ensure incorporation of various erosion control techniques, such as straw bales, silt fencing, aggregate materials, wetting compounds, and rehabilitation, where possible, to decrease erosion. Site rehabilitation will include re-vegetating or the distributing organic and geological materials (i.e., boulders and rocks) over the disturbed area to reduce erosion while allowing the area to naturally vegetate. Additionally, erosion control measures and appropriate BMPs will be implemented before, during, and after construction activities as appropriate.

5.5 VEGETATION

CBP will use materials free of non-native plant seeds and other plant parts to limit potential for infestation for on-site erosion control in uninfested native habitats. Since natural materials cannot be certified as completely weed-free, if such materials are used, there will be follow-up monitoring to document establishment of non-native plants, and appropriate control measures will be implemented for a period of time to be determined in the site restoration plan.

CBP fill material brought in from outside of the project area will be identified as to source location and will be weed-free.

5.6 WILDLIFE RESOURCES

The Migratory Bird Treaty Act (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting seasons (March 15 through August 31), surveys will be performed to identify active nests. Another mitigation measure that would be considered is to schedule all construction activities outside nesting seasons, negating the requirement for nesting bird surveys. The proposed sensor and communication towers would also comply with USFWS guidelines for reducing fatal bird strikes on communication towers (USFWS 2000) to the greatest extent practicable. Guidelines recommend collocating new antenna arrays on existing towers whenever possible, building towers as short as possible, without guy wires or lighting, and using white strobe lights whenever lights are necessary for aviation safety.

5.7 CULTURAL RESOURCES

CBP proposed mitigations of potential impacts on historic properties, which included a limited tower height of 60 feet, a requirement that the tower be set back from the waterfront, painting the tower in accordance with the wishes of the Grosse Pointe Club representatives, and installation of a series of plantings/landscaping around the tower to help screen it from view after its construction, which would be carried out in accordance with plans developed by a landscape professional in consultation with the Grosse Pointe Club.

These mitigation actions were approved by the Michigan SHPO and are outlined in the Michigan SHPO's May 2, 2011 letter to CBP. The mitigations are prerequisites for construction and operation of a tower on the Grosse Pointe Athletic Club property. These mitigation actions also are required to support the Michigan SHPO's finding that the proposed tower construction will have no adverse effect on the Grosse Pointe Club, which would otherwise meet the criteria for listing in the National Register of Historic Places.

5.8 WATER RESOURCES

Standard construction procedures will be implemented to minimize potential for erosion and sedimentation during construction. All work would cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. All fuels,

waste oils, and solvents will be collected and stored in tanks or drums within secondary containment areas consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 feet of drainages.

5.9 AIR QUALITY

Mitigation measures will be incorporated to ensure that fugitive dust and other air quality constituents emission levels do not rise above the minimum threshold as required per 40 CFR 51.853(b)(1). Measures will include dust suppression methods to minimize airborne particulate matter created during construction activities. Additionally, all construction equipment and vehicles will be required to be maintained in good operating condition to minimize exhaust emissions.

5.10 NOISE

During the construction phase, short-term noise impacts are anticipated. All applicable OSHA regulations and requirements will be followed. On-site activities would be restricted to daylight hours to the greatest extent practicable, although nighttime construction could occur if the construction schedule requires it. Construction equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level in and around tower construction sites.

5.11 HAZARDOUS MATERIALS

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill. To ensure oil pollution prevention, an SPCCP will be in place prior to the start of construction activities, and all personnel will be briefed on the implementation and responsibilities of this plan as is typical in CBP/OTIA projects. All spills will be reported to the designated CBP point of contact for the project. Furthermore, a spill of any petroleum liquids (e.g., fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with

all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles will be maintained at construction staging areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

Disposal of used batteries or other small quantities of hazardous waste will be handled, managed, maintained, stored, and disposed of in accordance with applicable Federal and state rules and regulations for the management, storage, and disposal of hazardous materials, hazardous waste and universal waste. Additionally, to the extent practicable, all batteries will be recycled locally.

Where handling of hazardous and regulated materials does occur, CBP will collect and store all fuels, waste oils, and solvents in clearly labeled tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein.

SECTION 6.0
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6.0 REFERENCES

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SECTION 7.0
ACRONYMS AND ABBREVIATIONS

7.0 ACRONYMS AND ABBREVIATIONS

AC	advisory circulars
ASTM	American Society for Testing and Materials
BMP	best management practice
CBP	Customs and Border Protection
CBV	cross-border violator
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CEQ	Council on Environmental Quality
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
CH_4	methane
CO_2	carbon dioxide
dB	decibel
dBA	A-weighted decibel
DHS	Department of Homeland Security
DNR	Department of Natural Resources
EA	Environmental Assessment
EDR	Environmental Data Resources, Incorporated
EO	Executive Order
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FR	Federal Register
GHG	green house gas
GSRC	Gulf South Research Corporation
IEEE	Institute of Electrical and Electronics Engineers
LUST	leaking underground storage tank
MDEQ	Michigan Department of Environmental Quality
MDOT	Michigan Department of Transportation
MPE	maximum possible exposure
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTIA	National Telecommunications and Information Administration
OSHA	Occupational Safety and Health Administration
PCPI	per capita personal income

Phase I ESA	Phase I Environmental Site Assessment
PM-2.5	particulate matter smaller than 2.5 microns
POL	petroleum, oil, and lubricants
RF	radio frequency
ROI	region of influence
ROW	right of way
SEA	Supplemental Environmental Assessment
SBI	Secure Border Initiative
SHPO	State Historic Preservation Office
SPCCP	Spill Prevention, Control, and Countermeasure Plan
SRHP	State Register of Historic Places
STATSGO	State Soil Geographic Database
TI	tactical infrastructure
U.S.	United States
USBP	U.S. Border Patrol
U.S.C.	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank

SECTION 8.0
LIST OF PREPARERS

8.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this Environmental Assessment.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/ EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Patience E. Patterson, RPA	Customs and Border Protection, OTIA	Archaeology	31 years professional archaeologist/cultural resource and NEPA manager	EA Review
Paula Miller	Customs and Border Protection, OTIA	NEPA/Legal	31 years of environmental compliance law and NEPA compliance	EA Review
Suna Adam Knaus	Gulf South Research Corporation	Forestry/Wildlife	21 years natural resources	EA review
Chris Ingram	Gulf South Research Corporation	Biology/Ecology	31 years EA/EIS studies	EA review
Howard Nass	Gulf South Research Corporation	Forestry/Wildlife	19 years of natural resources studies and NEPA	Project Coordinator (EA review)
Maria Bernard Reid	Gulf South Research Corporation	Environmental Studies	10 years NEPA and natural resources	Project Manager (field survey, EA preparation and review)
Sherry Ethell	Gulf South Research Corporation	Biology	19 years of NEPA and natural resources	EA review
Steve Kolian	Gulf South Research Corporation	Environmental Science	13 years environmental science	EA preparation
Ann Howard	Gulf South Research Corporation	Environmental Studies	2 years NEPA and natural resources	EA preparation
Chris Cothron	Gulf South Research Corporation	GIS/graphics	5 years GIS/graphics	GIS/graphics

APPENDIX A
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U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

James Buford, Director
Wayne County Department of Homeland Security and Emergency Management

10250 Middlebelt Road, 2nd Floor
Detroit, MI 48242

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Mr. Buford,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

The SEA will tier from the August 2009 final Environmental Assessment and analyze the potential for significant adverse or beneficial impacts of the proposed actions. At the present time, the proposed action includes the construction of one sensor and communications tower. Presently, there is one preferred location and three alternative sites for construction of the tower. The table below shows the location (latitude and longitude in decimal degrees) for each proposed tower site. Enclosed is a map showing the project location for the SEA.

Proposed Tower Sites Name	Latitude	Longitude
Preferred Location – Grosse Pointe War Memorial	42.38598	-82.89724
Alternative Site 1 – Grosse Pointe Club hillside	42.38597	-82.89797
Alternative Site 2 – Grosse Pointe Club lakeside	42.38564	-82.89749
Alternative Site 3 – Alter Road Park	42.35809	-82.92884

All of the proposed tower sites are located on maintained lawns or within landscaped beds. Photographs 1, 2, 3, and 4 show an overview of the preferred location for the proposed tower and each of the three alternative locations. The gentleman in Photographs 2, 3, and 4 represents the approximate location of the alternative tower locations.

Photograph 1. Preferred Location, Grosse Pointe War Memorial, overview facing south.

Photograph 2. Alternative Site 1, Grosse Pointe Club hillside, overview facing south.

Photograph 3. Alternative Site 2, Grosse Pointe Club lakeside, overview facing east.

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We are currently in the process of gathering the most current information available regarding Federal and state listed species potentially occurring within this area. CBP respectfully requests that your agency provide input regarding protected species, designated critical habitat, descriptions of the sensitive resources (*e.g.,* rare or unique plant communities, threatened and endangered and candidate species), and unique or environmentally sensitive areas that you believe may be affected by the proposed USBP activities.

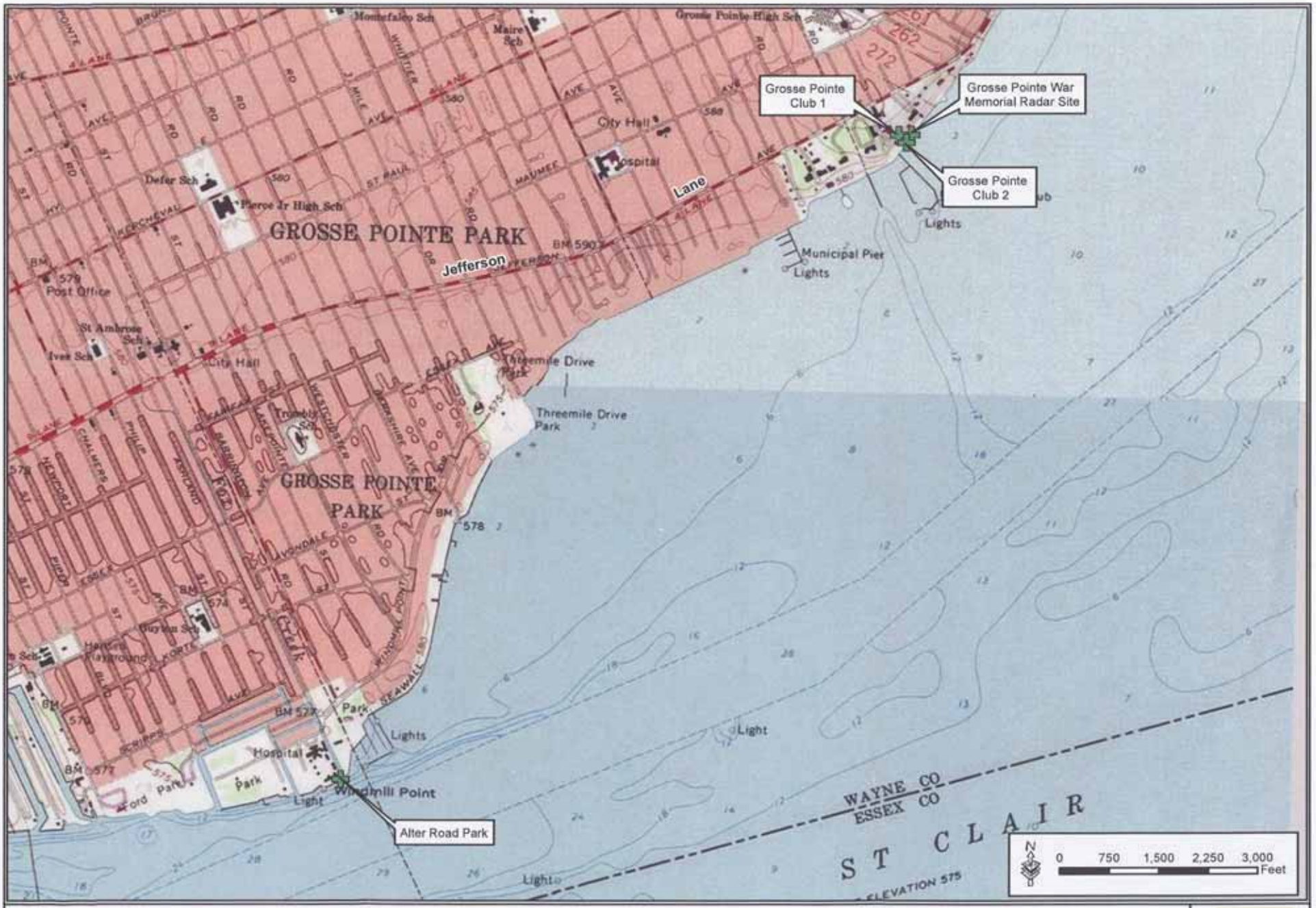
We intend to provide your agency with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James Riordan
Executive Program Director, SBI*net*

Enclosure:



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and Border Protection

June 17, 2010

Honorable Fred Cantu, Jr., Tribal Chief
Saginaw Chippewa Indian Tribe

7070 E. Broadway
Mt. Pleasant, MI 48858

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Chief Cantu,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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All of the proposed tower sites are located on maintained lawns or within landscaped beds. Inserted in the letter are photographs 1, 2, 3, and 4 showing an overview of the preferred location for the proposed tower along with each of the three alternative locations. The gentleman in Photographs 2, 3, and 4 represents the approximate location of the alternative tower locations.

Photograph 1. Preferred Location, Grosse Pointe War Memorial, overview facing south.

Photograph 2. Alternative Site 1, Grosse Pointe Club hillside, overview facing south.

Photograph 3. Alternative Site 2, Grosse Pointe Club lakeside, overview facing east.

Photograph 4. Alternative Site 3, Alter Road Park, overview facing east.

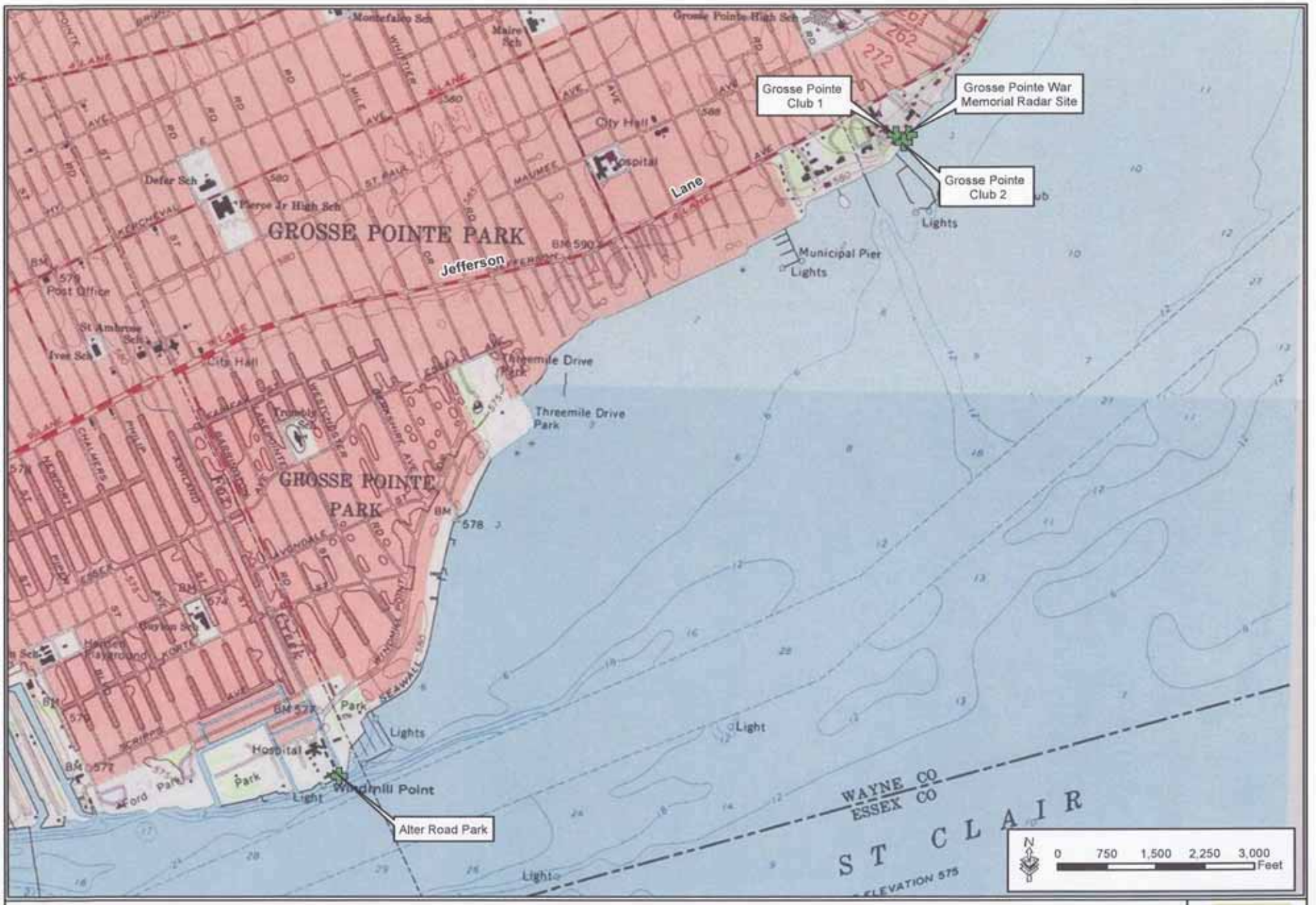
We are currently in the process of gathering the most current information available regarding cultural resources occurring within this area. We have completed a cultural resources survey of the preferred and alternative locations and will be forwarding that to you as soon as possible with the appropriate review and comment.

We intend to provide you with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James Riordan
Executive Program Director, SBI*net*

Enclosure



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Mr. Craig Czarnecki, Field Supervisor
U.S. Fish and Wildlife Service
East Lansing Michigan Ecological Services Field Office

2651 Coolidge Road
East Lansing, MI 48823

RE: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Mr. Czarnecki:

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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We intend to provide your agency with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed.

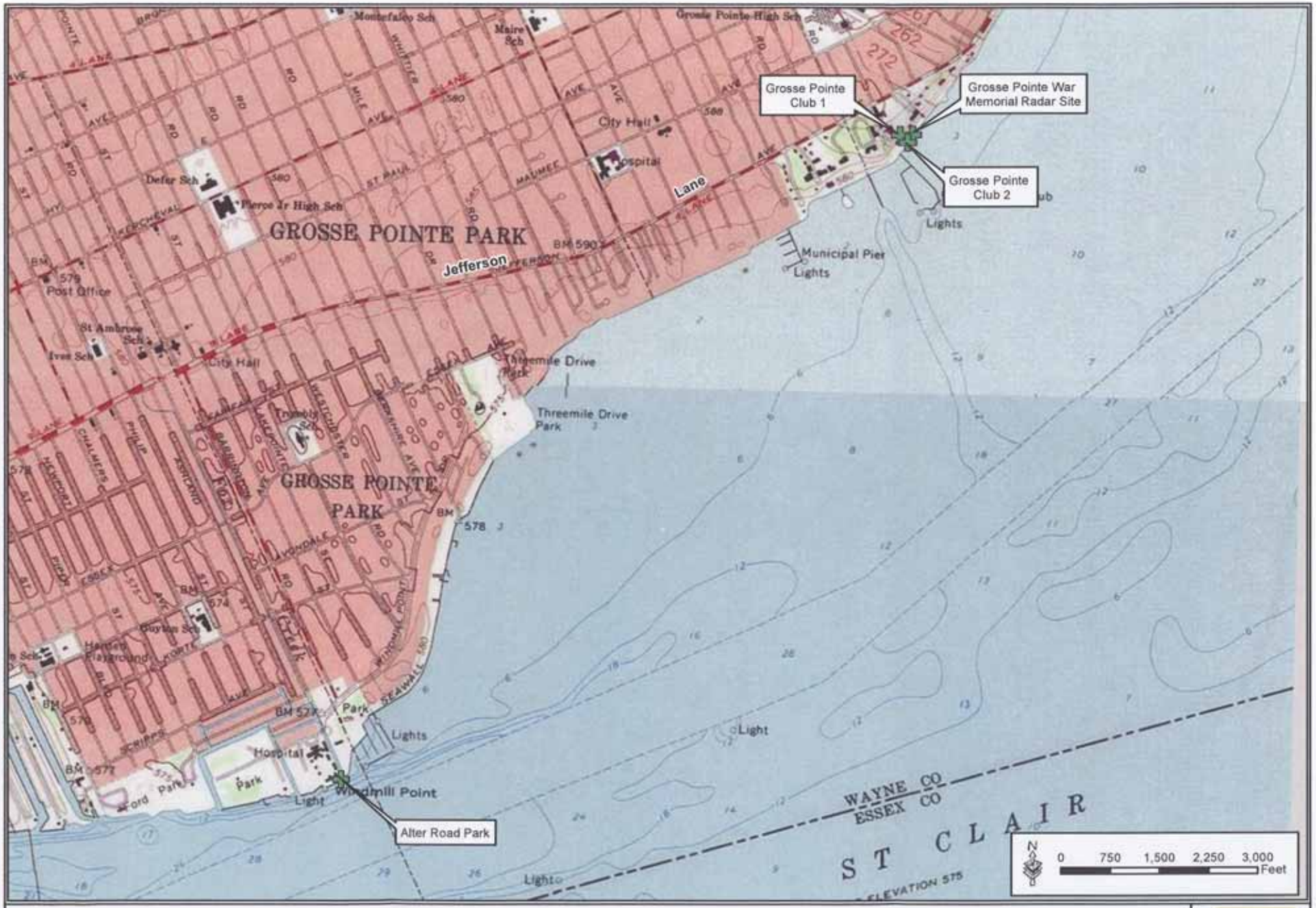
Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James L. Riordan
Executive Program Director, SBI*net*

Enclosure:

cc: Barbara Hosler
Chris Mensing



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

David Dortman
Michigan Department of Environmental Quality
Land and Water Management Division

27700 Donald Ct.
Warren, MI 48092-2793

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Mr. Dortman,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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We are currently in the process of gathering available information regarding Federal and state permits or requirements necessary for this project. CBP respectfully requests that your office provide input regarding any rare, unique, or environmentally sensitive areas that you believe may be affected by the proposed USBP activities.

We intend to provide your agency with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed.

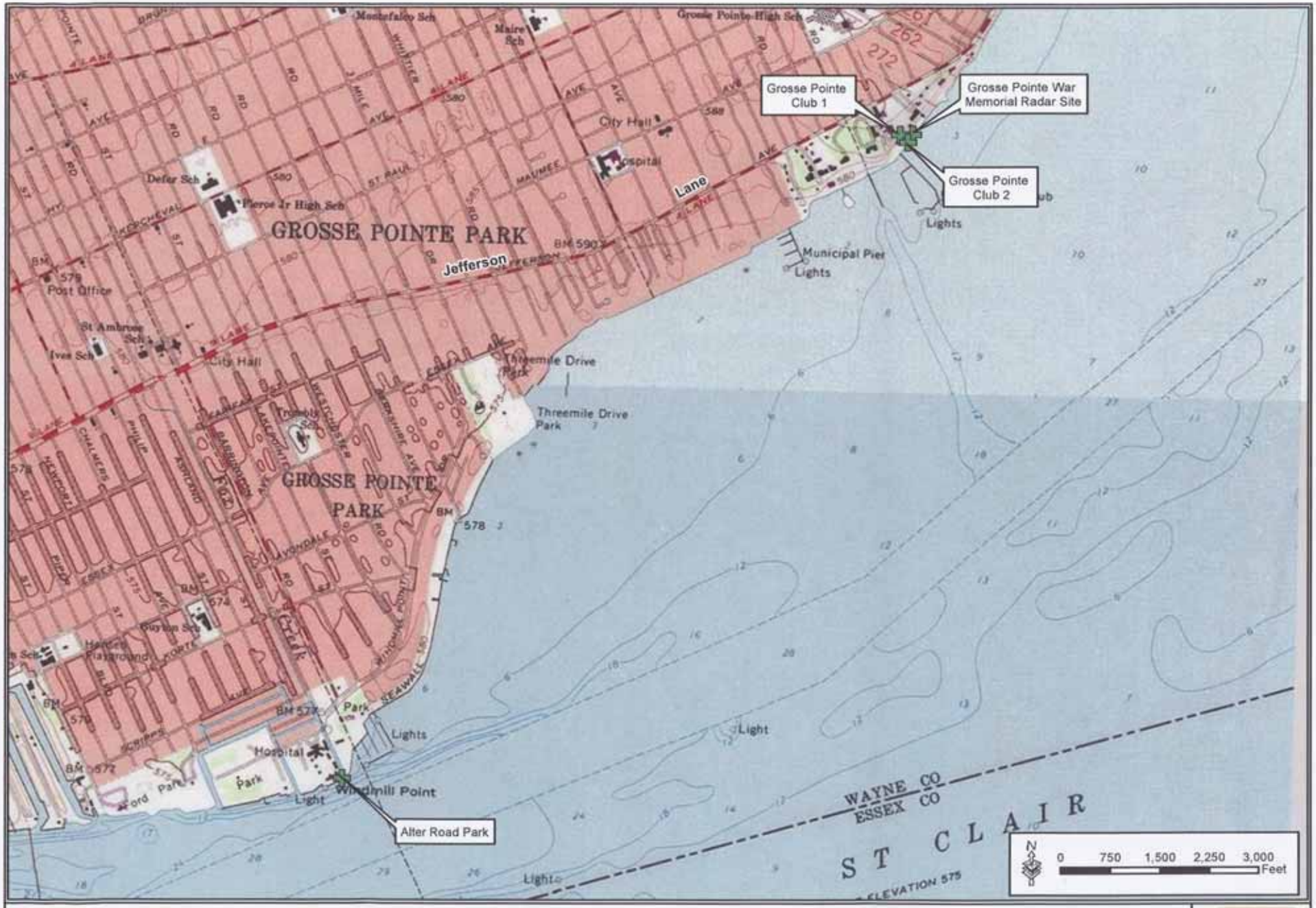
Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James Riordan
Executive Program Director, SBI*net*

Enclosure:

cc: Andrew Hartz
Anne Hokanson



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Andrew Hartz
Michigan Department of Environmental Quality
Land and Water Management

27700 Donald Ct
Warren, MI 48092-2793

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Mr. Hartz,

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Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

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Executive Program Director, SBI*net*

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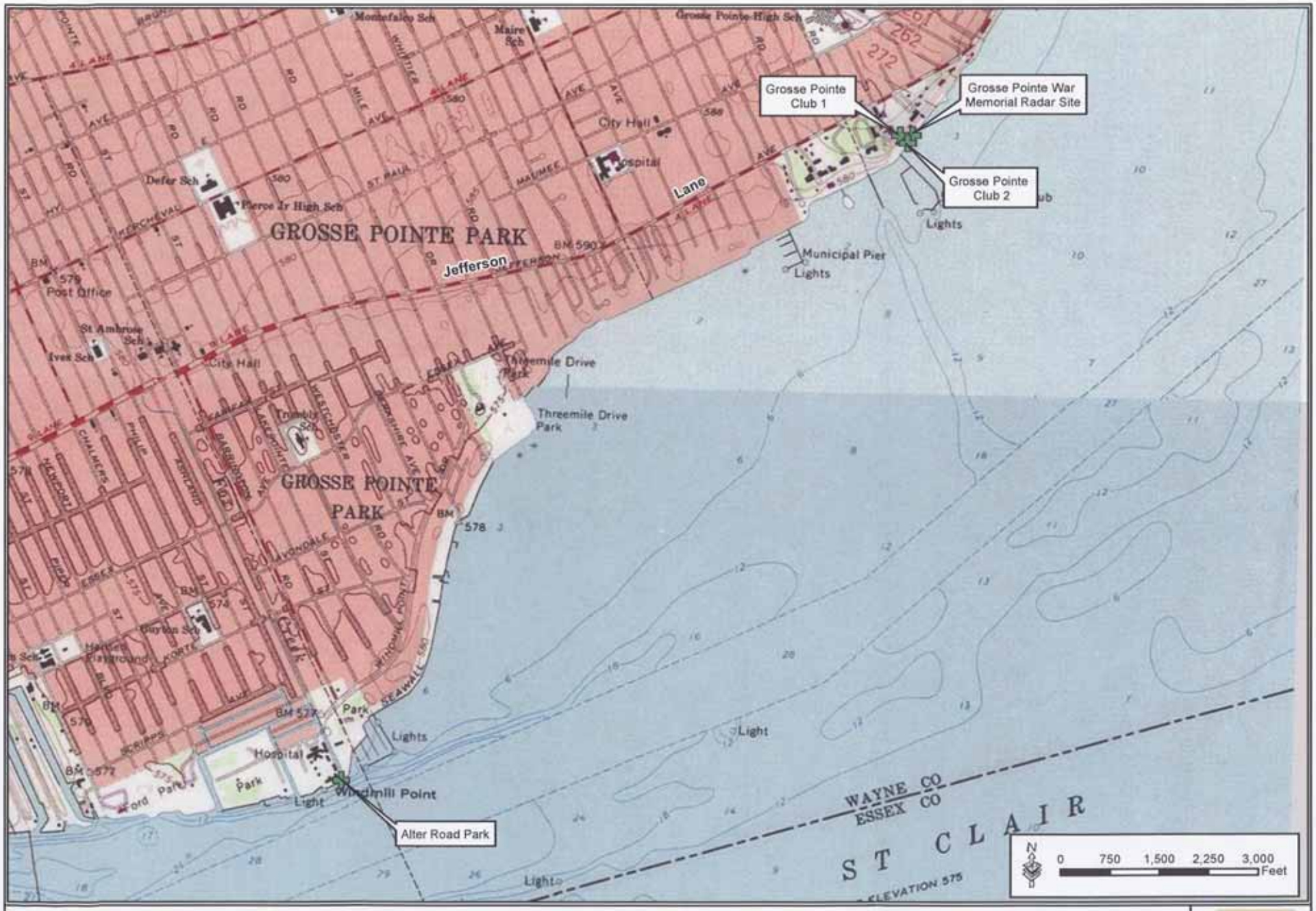

Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

ATTN: Anne Hokanson
Michigan Department of Environmental Quality
Land and Water Management Division

27700 Donald Ct.
Warren, MI 48092-2793

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Ms. Hokanson,

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Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

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Executive Program Director, SBI*net*

Enclosure:

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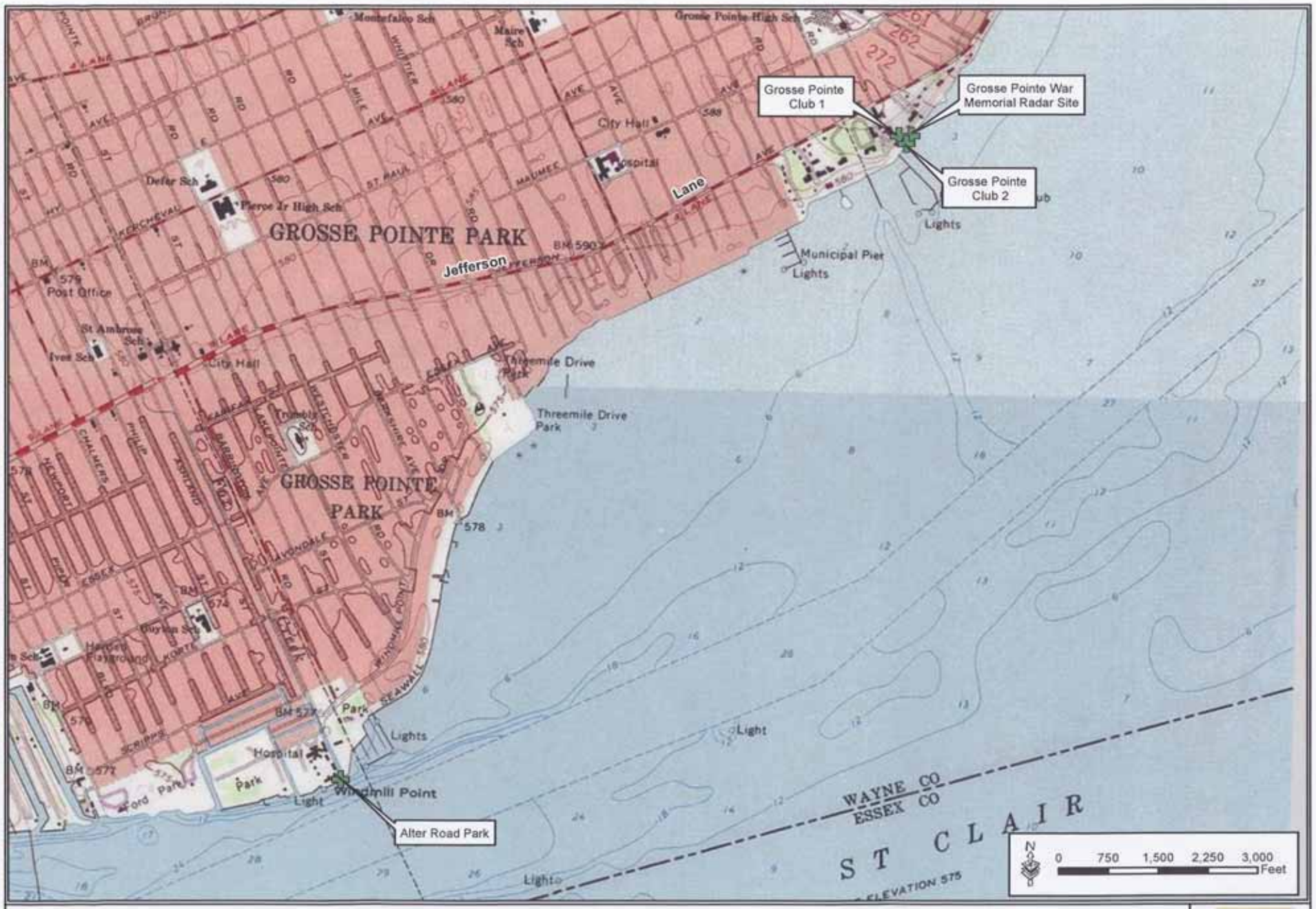

Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Chris Mensing, Biologist
U.S. Fish and Wildlife Service
East Lansing Michigan Ecological Services Field Office

2651 Coolidge Road
East Lansing, MI 48823

RE: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

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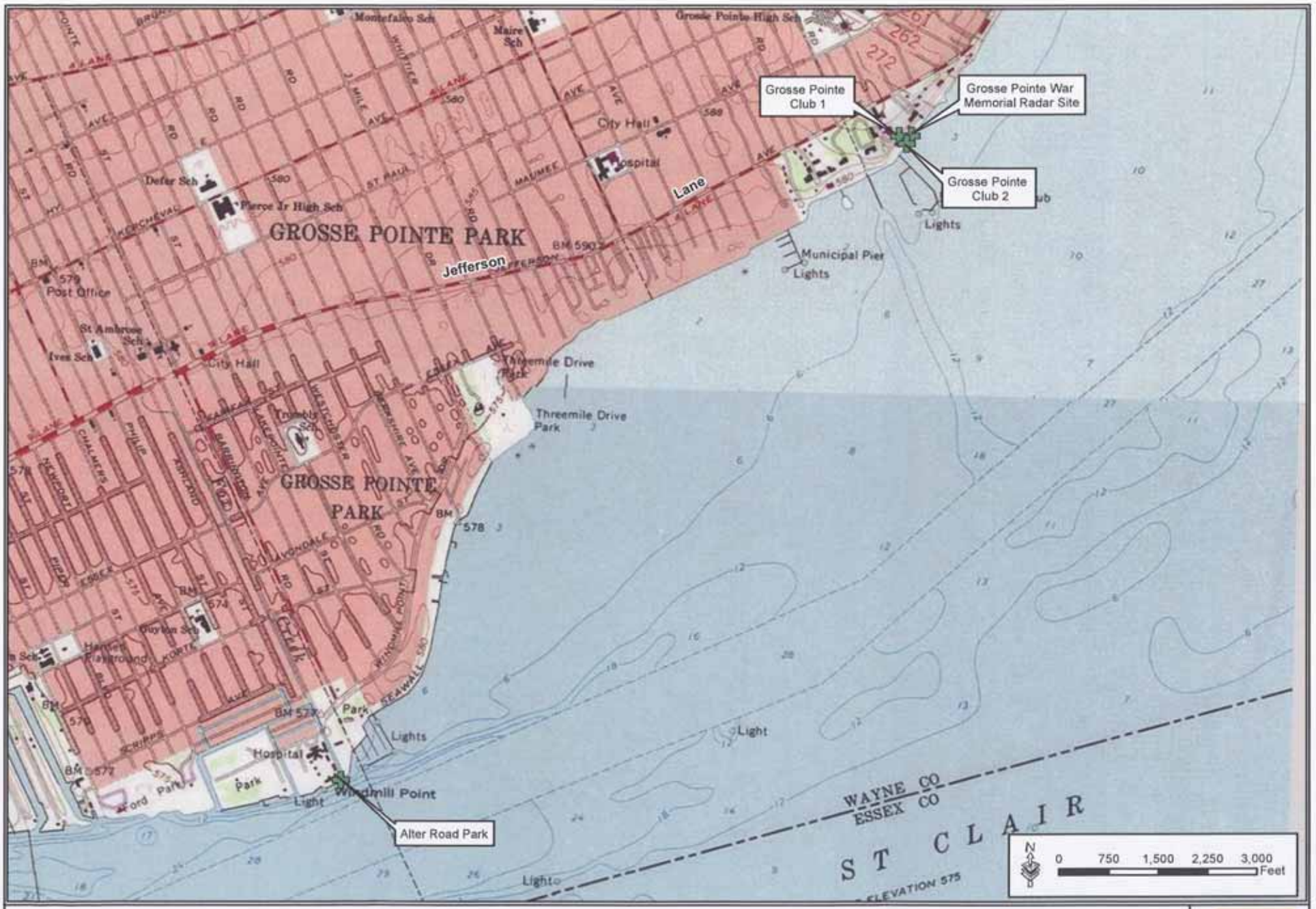

Project Location Map

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May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Barbara Hosler, Project Biologist
U.S. Fish and Wildlife Service
East Lansing Michigan Ecological Services Field Office

2651 Coolidge Road
East Lansing, MI 48823

RE: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

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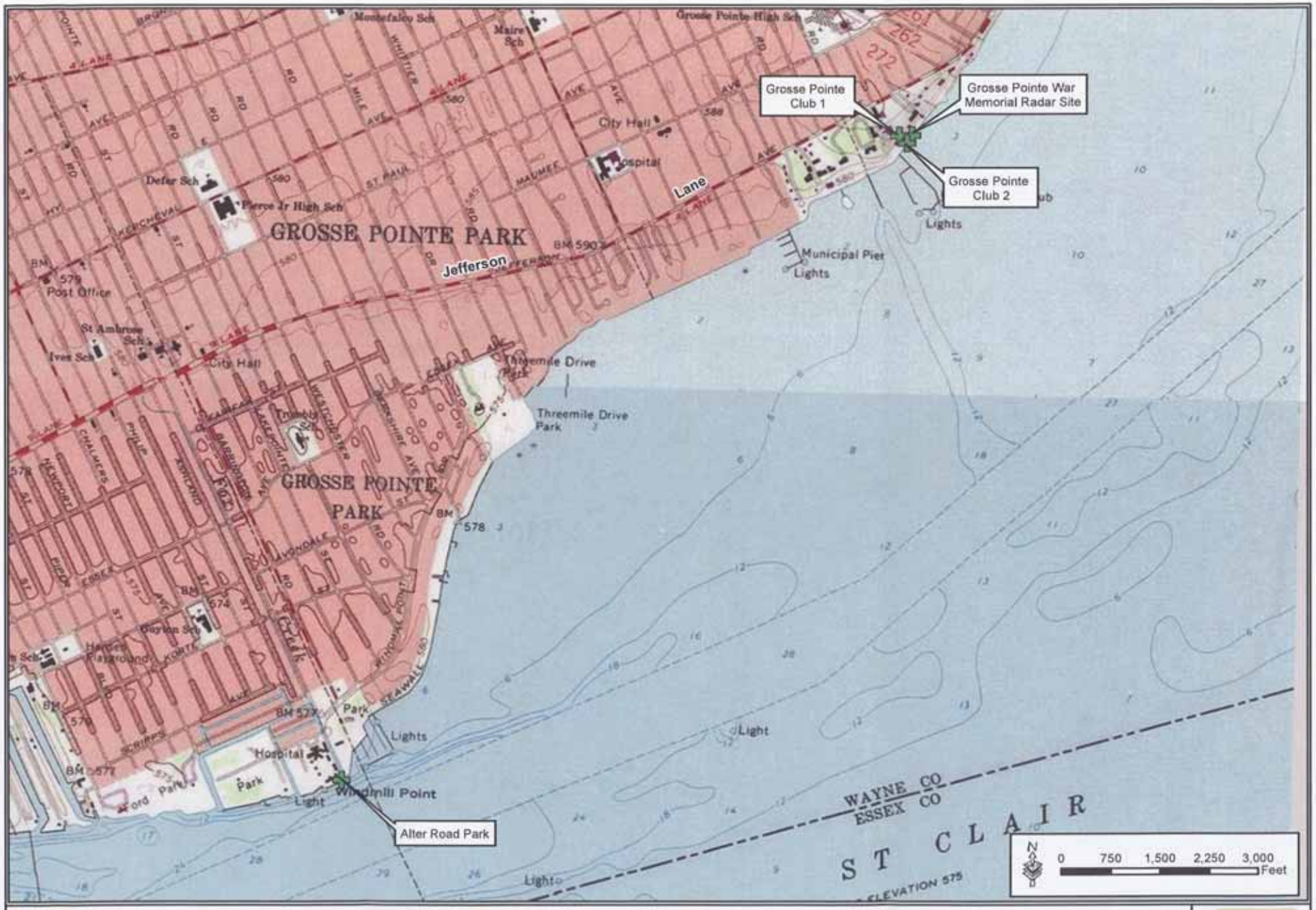

Project Location Map

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May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 17, 2010

Honorable John Miller, Chairman
Pokagon Band of Potawatomi Indians

714 N. Front St
Dowagiac, MI 49057

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Chairman Miller,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

The SEA will tier from the August 2009 final Environmental Assessment and analyze the potential for significant adverse or beneficial impacts of the proposed actions. At the present time, the proposed action includes the construction of one sensor and communications tower. Presently, there is one preferred location and three alternative sites for construction of the tower. The table below shows the location (latitude and longitude in decimal degrees) for each proposed tower site. Enclosed is a map showing the project location for the SEA.

Proposed Tower Sites Name	Latitude	Longitude
Preferred Location – Grosse Pointe War Memorial	42.38598	-82.89724
Alternative Site 1 – Grosse Pointe Club hillside	42.38597	-82.89797
Alternative Site 2 – Grosse Pointe Club lakeside	42.38564	-82.89749
Alternative Site 3 – Alter Road Park	42.35809	-82.92884

All of the proposed tower sites are located on maintained lawns or within landscaped beds. Inserted in the letter are photographs 1, 2, 3, and 4 showing an overview of the preferred location for the proposed tower along with each of the three alternative locations. The gentleman in Photographs 2, 3, and 4 represents the approximate location of the alternative tower locations.

Photograph 1. Preferred Location, Grosse Pointe War Memorial, overview facing south.

Photograph 2. Alternative Site 1, Grosse Pointe Club hillside, overview facing south.

Photograph 3. Alternative Site 2, Grosse Pointe Club lakeside, overview facing east.

Photograph 4. Alternative Site 3, Alter Road Park, overview facing east.

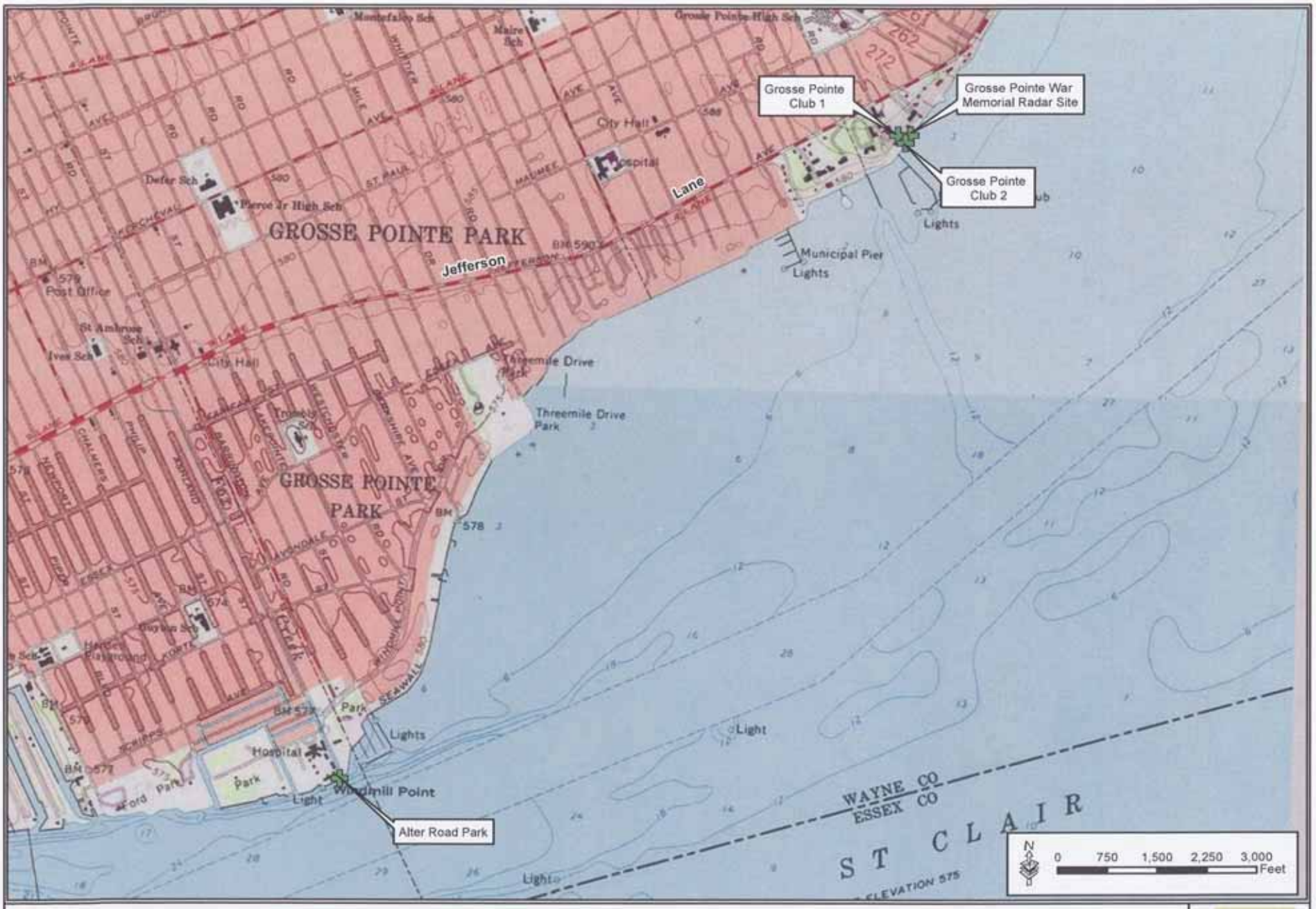
We are currently in the process of gathering the most current information available regarding cultural resources occurring within this area. We have completed a cultural resources survey of the preferred and alternative locations and will be forwarding that to you as soon as possible with the appropriate review and comment.

We intend to provide you with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James Riordan
Executive Program Director, SBI*net*

Enclosure



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Kathleen M. Mooney, General Manager
Grosse Pointe Club

6 Berkshire Place
Grosse Pointe Farms, MI 48236

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Ms. Mooney,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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We are currently in the process of gathering available information regarding Federal and state permits or requirements necessary for this project. CBP respectfully requests that your office provide input regarding any rare, unique, or environmentally sensitive areas that you believe may be affected by the proposed USBP activities.

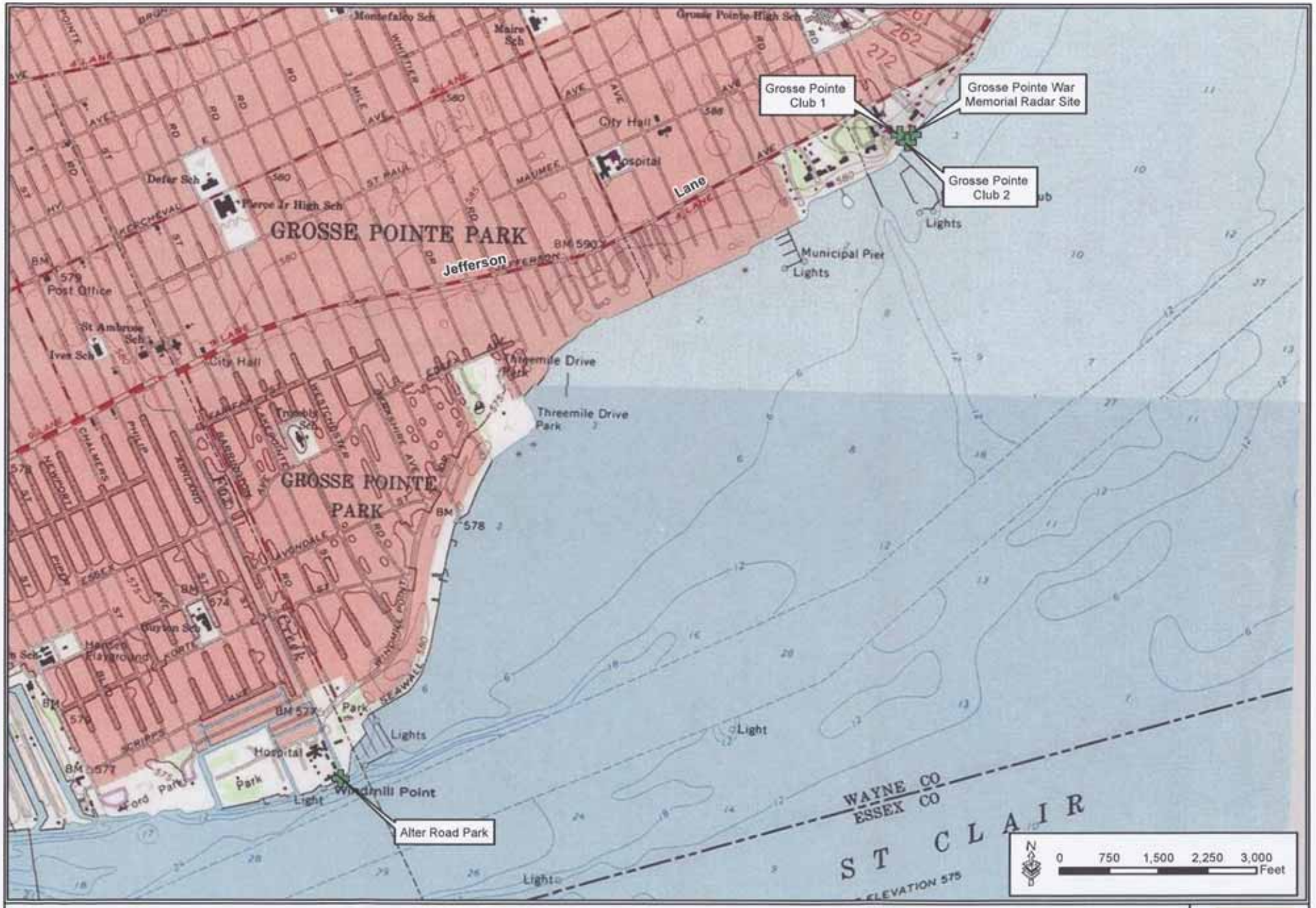
We intend to provide your agency with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James Riordan
Executive Program Director, SBI*net*

Enclosures:



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Jennifer Olson, Environmental Review
Michigan Natural Features Inventory
4th Floor Stevens T. Mason Building

530 W. Allegan Street
Lansing, MI 48933

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Ms. Olson,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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We are currently in the process of gathering the most current information available regarding Federal and state listed species potentially occurring within this area. CBP respectfully requests that your agency provide input regarding protected species, designated critical habitat, descriptions of the sensitive resources (*e.g.,* rare or unique plant communities, threatened and endangered and candidate species), and unique or environmentally sensitive areas that you believe may be affected by the proposed USBP activities.

We intend to provide your agency with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

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James Riordan
Executive Program Director, SBI*net*

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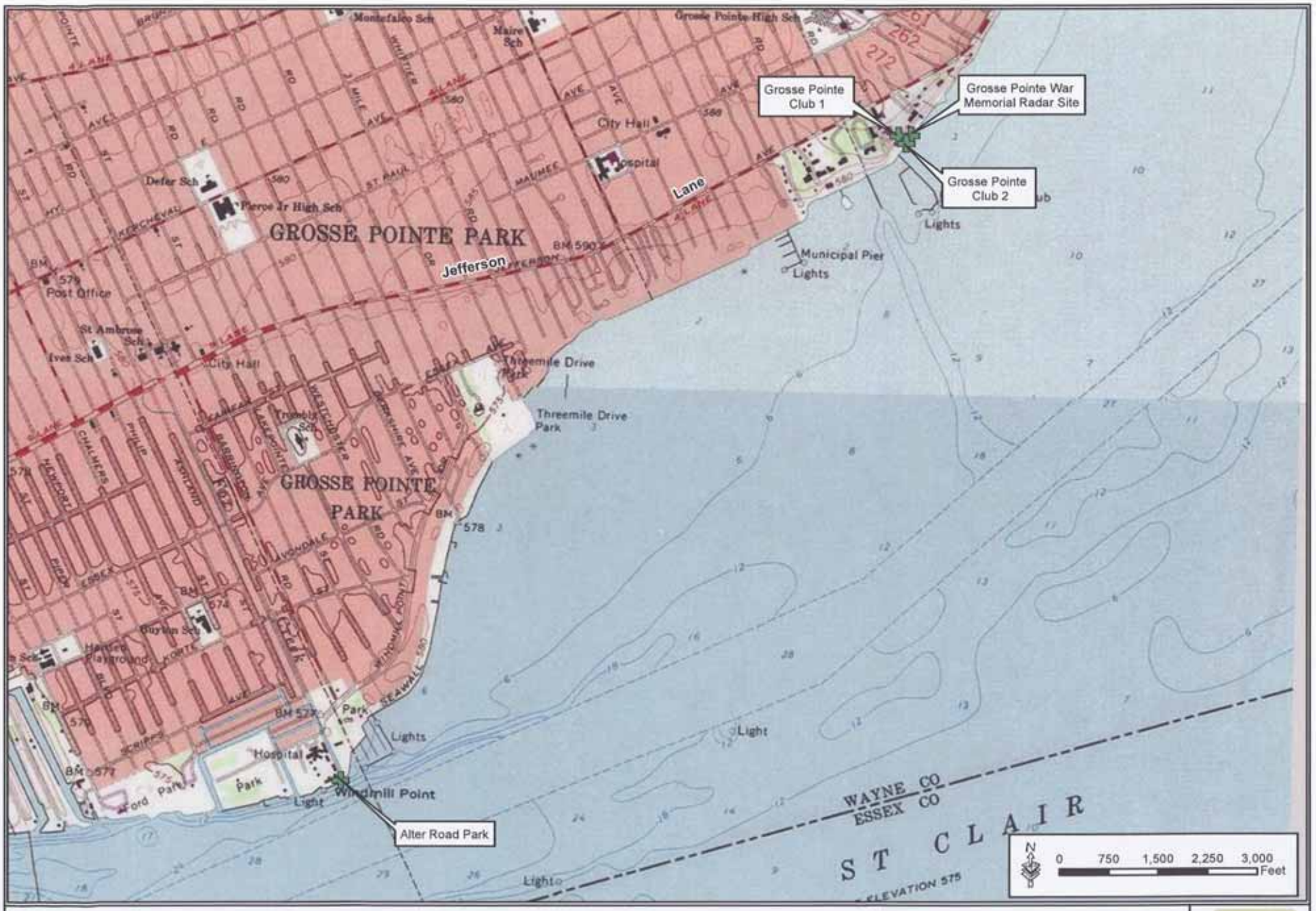

Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Mark R. Webber
Grosse Pointe War Memorial

32 Lake Shore Drive
Grosse Pointe Farms, MI 48236

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Dr. Webber,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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We intend to provide your agency with a copy of the Draft SEA for the SBI*net* Detroit Project – Grosse Pointe Tower once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

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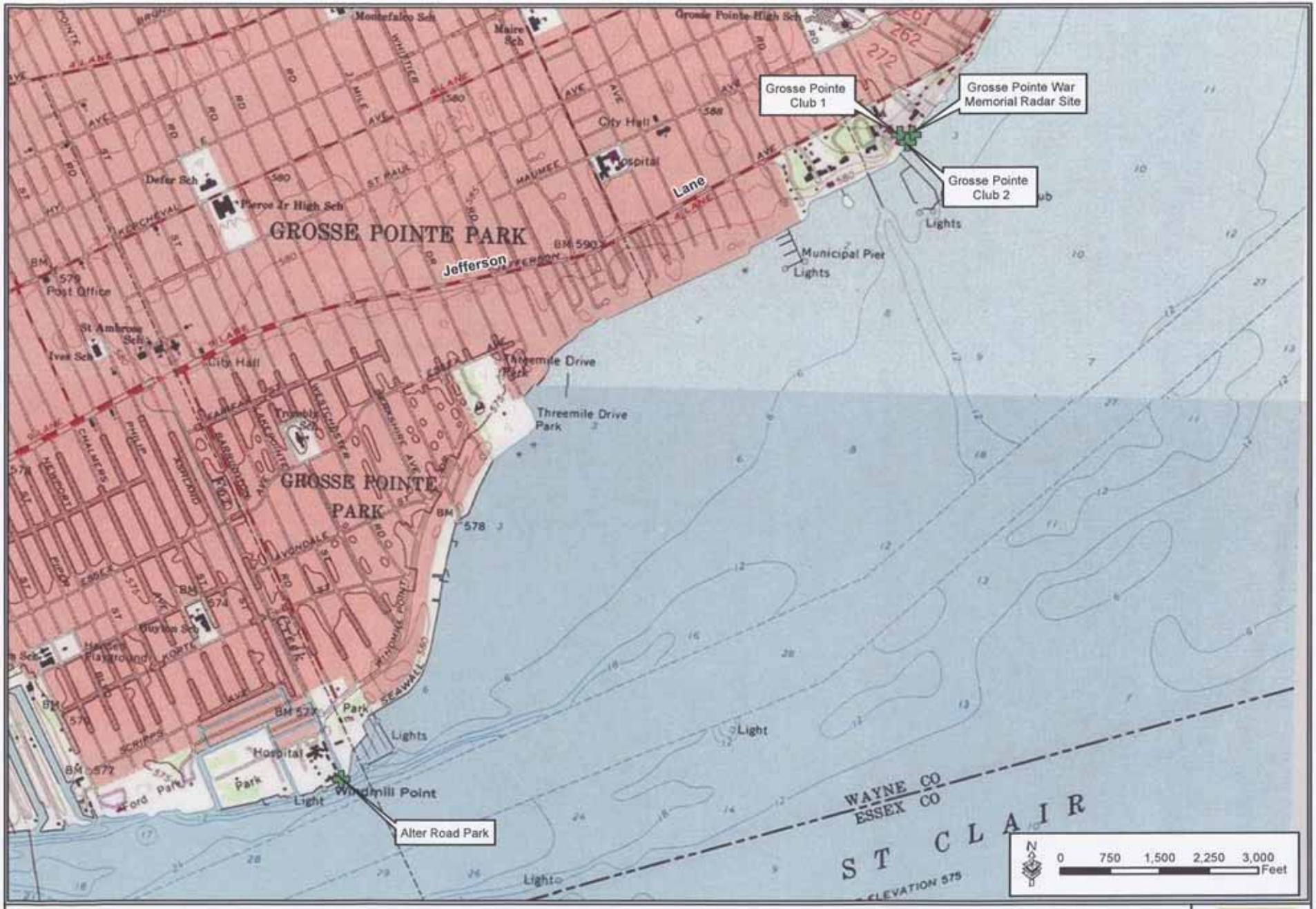

Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and
Border Protection

June 10, 2010

Timothy Payne, Management Unit Supervisor
Michigan Department of Natural Resources
Southfield Operations Service Center

26000 W. Eight Mile Road
Southfield, MI 48034

SUBJECT: Proposed Supplemental Environmental Assessment for the SBI*net* Detroit Project – Grosse Pointe Tower, U.S. Border Patrol Detroit Sector

Dear Mr. Payne,

On behalf of the U.S. Customs and Border Protection (CBP) and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE), Fort Worth District intends to prepare a Supplemental Environmental Assessment (SEA) for the Secure Border Initiative (SBI*net*) Detroit Project – Grosse Pointe Tower in the U.S. Border Patrol (USBP) Detroit Sector. This SEA will address the construction, operation, and maintenance of one monopole tower outfitted with sensor and communication systems along the shoreline of Lake St. Clair in Grosse Pointe, Michigan. This tower would add to the existing communications network proposed, assessed, and approved in the August 2009 final *Environmental Assessment for the Proposed SBInet Detroit Project U.S. Border Patrol, Detroit Sector, Michigan* and *Finding of No Significant Impact*. The intent of the towers and camera installations is to make USBP enforcement actions more efficient and effective.

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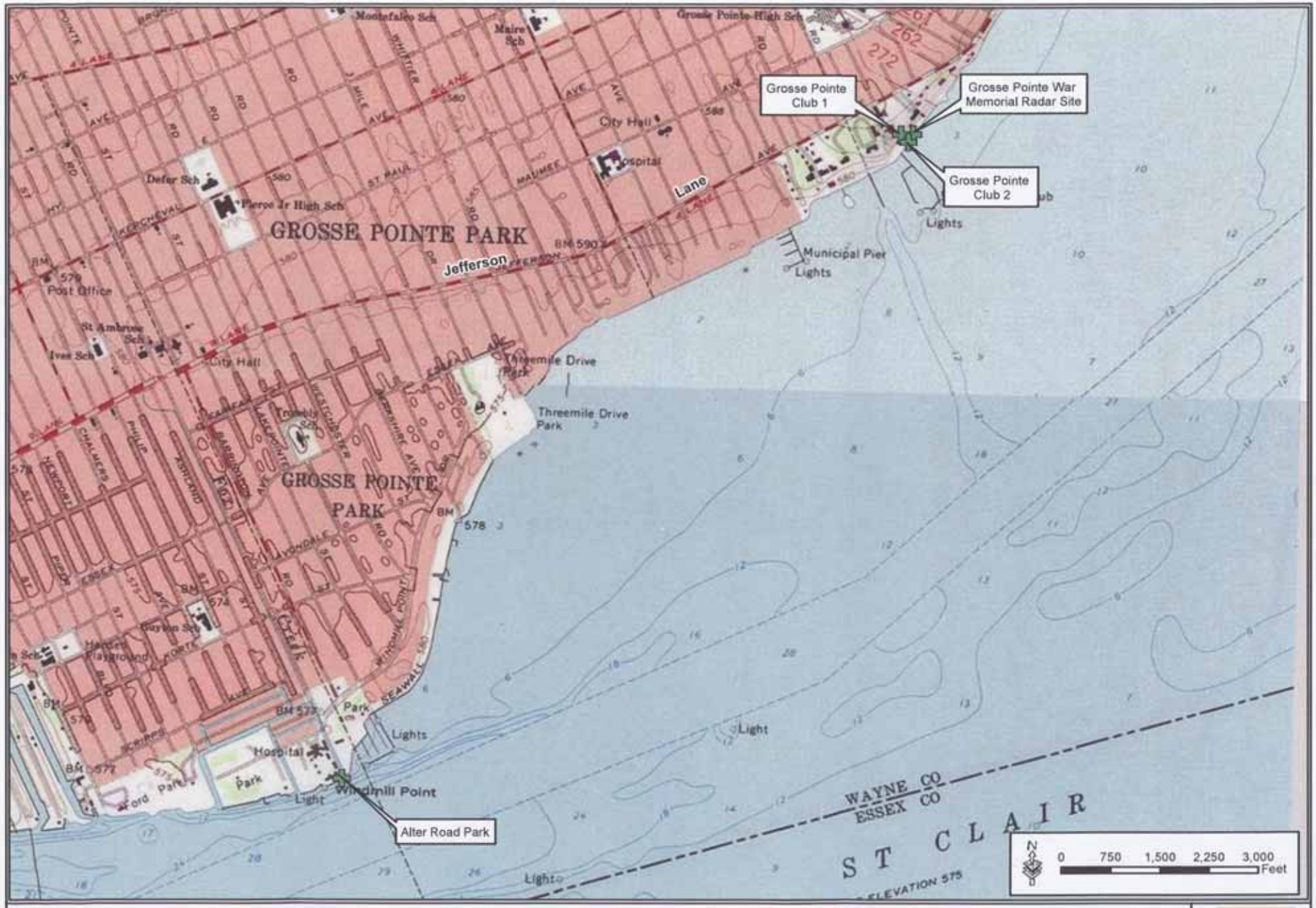
Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Ms. Patience Patterson at (571) 468-7290.

Sincerely,

James Riordan
Executive Program Director, SBI*net*

Enclosures:



Project Location Map

GSRC

May 2010

U.S. Department of Homeland Security
Washington, DC 20229

U.S. Customs and Border Protection

October 12, 2010

Brian Grennell, Environmental Review Specialist
Michigan Historical Center
702 West Kalamazoo Street
Lansing, MI 48909-8240

Subject: ER09-494 - Secure Border Initiative (SBI*net*) Detroit Project – Addition of one tower near Grosse Pointe, Wayne County, Michigan

Dear Mr. Grennell,

In our previous letter, dated September 3, 2010, we provided the cultural resources survey of the preferred and alternative locations to you concerning the proposed tower site noted above. Our letter noted that Alternative 3 (Alter Road – Mariner Park) tower site position had been chosen as the preferred site. Subsequent to that letter, Customs and Border Protection (CBP) determined the site was inadequate to operational needs for the Border Patrol. CBP plans to deploy a tower with both cameras and maritime radar to the south of the Grosse Pointe War Memorial Church at the water's edge. This tower will compliment an existing tower on the northern end of Lake St. Clair on Gull Island. Together both sites are projected to provide complete radar coverage over the entire lake. Complete radar coverage will permit CBP to monitor maritime traffic and detect targets of interest (TOIs) crossing from Canada into the United States. The Walpole Indian Reserve in Canada, on the eastern shore of the lake, has been documented as an area that facilitates the flow of illegal aliens and drugs into the United States. The intent of deploying two radar sites on Lake St. Clair is to detect cross border maritime traffic down to vessels as small as a personal watercraft (Jet Ski).

Subsequent to the report you received, two factors were identified that rendered the Mariner Park site unsuitable for deployment of radar. The two factors are; 1) Technical performance and, 2) Security.

Technical Performance: The Mariner Park site is located further south than the other sites on the southern end of Lake St. Clair (see General Project Location map in Johnson, 2010). The projected radar range at the Mariner Park site, when coupled with the radar range at the Gull Island site, leaves a gap in coverage in the middle of Lake St. Clair. This gap could permit the undetected passage of small maritime traffic from Canada into the United States. CBP deems this gap in coverage as unacceptable. Two overlays of radar coverage for these sites are provided below and serve to illustrate the gap in radar coverage at the Mariner Park site (See Attached Page 1 and 2 for maximum coverage and coverage gaps), **please consider this attachment as Law Enforcement Sensitive (LES) information.**

Safety: The Mariner Park is a municipal park maintained by the Detroit Recreation Department. Although Alter Road itself is completely within the Detroit city limits, it is a symbolic dividing

line between the economically depressed City of Detroit and the affluent city of Grosse Pointe Park. Mariner Park is located within the economically depressed area that is associated with higher crime statistics compared to the other sites in the Grosse Pointe area. There is a lighthouse at Mariner Park that is still functioning as an aid to navigation for traffic on Lake St. Clair and the Detroit River. The lighthouse has several bullet holes in the structure. CBP is concerned about the security at the Alter Road site. It would be relatively easy to disable the cameras and radar at Mariner Park with small arms fire, destroying $500,000 in equipment, in a matter of minutes.

For convenience, I have enclosed the cultural resources report again for the proposed surveillance tower at Grosse Pointe, Wayne County, Michigan (Johnson, 2010). Given the findings for the Alternate 3 site at Mariner Park as unacceptable in an operational sense, it has been decided that Alternative 2 (Grosse Pointe Athletic Club) has been chosen as the site for the tower to be constructed. This selection is based on the fact that it has been recommended by the cultural resources contractor and deemed by CBP-SBI*net* to have no adverse effect on the Grosse Pointe Memorial Church (due to the building height and sitting at a higher altitude than the proposed tower [nearest the water]) and no adverse effect on the Grosse Pointe War Memorial (due to its being shielded by intervening trees. Please see the attached photographs (Photos 21 and 25); these are photos that represent a view from a structure or area to the proposed tower site. The tower has been placed in the photograph to represent the visual effect. Photograph 21 and 25 equate with the same number photo in Johnson, 2010.

Therefore, it is our finding and decision that there are no adverse effects to the NRHP-listed sites, Grosse Pointe War Memorial and the Grosse Pointe Memorial Church (see attached photographs with angles from structures to proposed tower). In accordance with 36 CFR Part 800.5(b) and (c)(1), we ask for your concurrence with our findings of No Adverse Effects. If you do not object, within 30 days of receipt of this letter and the attached report, we will consider this agency's responsibilities under section 106 are fulfilled.

Thank you, I look forward to hearing from you on this matter. Should you have any questions, please do not hesitate to contact me at (571) 468-7290 or email me at patience.patterson@dhs.gov.

Sincerely,

Patience E. Patterson

Patience E. Patterson, RPA
Manager, Environmental Resources
Office of Technology Innovation and Acquisition
US Customs and Border Protection

Enclosures

CC: Sara Schroerlucke, Director, Northern Border Division

Bulletin Board

LOST & FOUND

NOTICE

All advertising published is subject to the applicable rate card, copies of which are available from our Advertising Department. All ads are subject to approval before publication. We reserve the right to edit, refuse, reject, or cancel any ad at any time. Errors must be reported in the first day of publication. We shall not be liable for any loss or expense that results from the publication (whether published correctly or not) or omission of an advertisement.

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LEGAL NOTICE/ BIDS/PROPOSALS

DETROIT/WAYNE COUNTY PORT AUTHORITY PUBLIC NOTICE

REQUEST FOR QUALIFICATIONS (RFQ) DETROIT/WAYNE COUNTY PORT AUTHORITY, PUBLIC DOCK AND TERMINAL PROJECT, BUILDING OPERATOR

•This RFQ, for interested and qualified firms, is to present the requirements and procedures to be followed in order to submit qualifications for contract consideration to provide building operational services for the Detroit/Wayne County Port Authority's Public Dock and Terminal project. The RFQ (hard copy or electronic transmission is available) can be picked up or requested on/or after 9:00 AM, Wednesday, December 8, at the offices of the Detroit/Wayne County Port Authority, 8109 E. Jefferson Ave., Detroit, MI 48214 (313) 331-3842 ext.311. Electronic versions are available by e-mail at kerr@portdetroit.com. Proposals are due Friday, January 14, 2011 at 5 PM.

PUBLIC NOTICE
Michigan Department of Community Health Medical Services Administration

Monthly Premiums for TMA Plus Program

Public Act 187 of 2010 mandates an increase in monthly TMA Plus program premium amounts. Effective January 1, 2011 the premium will increase to a single rate of $435 per person per month.

Comments
Any comments on, or requests for, copies of the Notice of Proposed Policies may be submitted in writing to: Michigan Department of Community Health, Program Policy Division, Bureau of Medicaid Policy and Actuarial Services, P.O. Box 30479, Lansing Michigan, 48909-7979. Written comment may be reviewed by the public at Capitol Commons Center, 400 S. Pine Street, Michigan. There is no public testimony scheduled for this change.

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Left on Palmer 1 mile.
Info: 419-885-8118

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SEASONAL ITEMS

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LEGAL NOTICE/ BIDS/PROPOSALS

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NOTICE OF AVAILABILITY

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (SEA) AND FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR THE PROPOSED SBI*NET* DETROIT PROJECT – GROSSE POINTE TOWER, DETROIT SECTOR, MICHIGAN

U.S. Customs and Border Protection (CBP), a component of the Department of Homeland Security (DHS), announces the availability of the draft SEA and draft FONSI for the proposed SBI*net* Detroit Project Grosse Point Tower. Pursuant to the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (U.S.C.) 4321 *et seq.*, CBP has prepared the SEA and FONSI to identify and assess the potential impacts associated with the proposed siting, construction, operation, and maintenance of a sensor and communications tower within the Detroit Sector. The location for the Proposed Action, which is known as the "SBI*net* Detroit Project," is the Grosse Pointe Athletic Club along the shoreline of Lake St. Clair (U.S.-Canada International Border) in Grosse Pointe within Detroit Sector, Michigan.

The SEA and FONSI were prepared in accordance with CBP's obligations under NEPA, the Council on Environmental Quality (CEQ) implementing regulations at 40 Code of Federal Regulations (CFR) Parts 1500–1508, and DHS Management Directive 023-01 (Environmental Planning Program). Copies of the Detroit Project SEA and draft FONSI can be downloaded from the project website at www.cbp.gov/sbi under the link *SBI NEPA Documents for Public Review and Comment.* Additionally, copies are available in the following libraries:

Grosse Pointe Public Library – Central Branch, 10 Kercheval Avenue, Grosse Pointe Farms, MI, 48236, (313)343-2074, and Grosse Pointe Public Library – Ewald Branch, 15175 E. Jefferson, Grosse Pointe Park, MI, 48230, (313)343-2071

Any comments on the SEA and draft FONSI or requests for additional information should be submitted by January 09, 2011 via one of the following methods: (1) by email to: GrossePointeSEAComments@dhs.gov; (2) by mail to: Ms. Patience E. Patterson, RPA, Director of Environmental Planning, U.S. Customs and Border Protection, 1901 S. Bell Street, #734, Arlington, VA 20598.; or (3) by fax to: (571) 468-7391

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STATE OF MICHIGAN
MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY
STATE HISTORIC PRESERVATION OFFICE

RICK SNYDER
GOVERNOR

GARY HEIDEL
EXECUTIVE DIRECTOR

May 2, 2011

PAULA MILLER
U S CUSTOMS AND BORDER PROTECTION
DEPARTMENT OF HOMELAND SECURITY
WASHINGTON DC 20229

RE: ER09-494 Secure Border Initiative (SBInet) Detroit Project - Grosse Pointe, T1S, R13E, Grosse Pointe, Wayne County (CBP/DHS)

Dear Ms. Miller:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the above-cited undertaking at the location noted above. Based on the information provided for our review, it is the opinion of the State Historic Preservation Officer (SHPO) that the proposed undertaking will have **no adverse effect** [36 CFR § 800.5(b)] on the Grosse Pointe Club, which appears to meet the criteria for listing in the National Register of Historic Places, provided the following conditions are met:

- The tower will not exceed 60' in height.
- The tower will be set back from the waterfront and will be painted, in accordance with the wishes of the Grosse Pointe Club.
- The CBP/DHS agrees to install a series of plantings/landscaping around the tower to help screen it from view after its construction. The plantings will be carried out in accordance with plans developed by a landscape professional in consultation with the Grosse Pointe Club.

If you concur, the accompanying form must be signed by an agency official with legal and financial responsibility for the above-cited undertaking [36 CFR § 800.2(a)]. Please return the signed original to us. Please note that the Section 106 review process will not be complete and the CBP/DHS's responsibility to comply with 36 CFR § 800.4, "Identification of historic properties," and 36 CFR § 800.5, "Assessment of adverse effects", will not be fulfilled until we have received this letter with the original signature of the agency official. If the agency official disagrees with these conditions, then consultation with this office shall be reopened per 36 CFR § 800.5(a).

The views of the public are essential to informed decision making in the Section 106 process. Federal Agency Officials or their delegated authorities must plan to involve the public in a manner that reflects the nature and complexity of the undertaking, its effects on historic properties and other provisions per 36 CFR § 800.2(d). We remind you that Federal Agency Officials or their delegated authorities are required to consult with the appropriate Indian tribe and/or Tribal Historic Preservation Officer (THPO) when the undertaking may occur on or affect any historic properties on tribal lands. **In all cases**, whether the project occurs on tribal lands or not, Federal Agency Officials or their delegated authorities are also required to make a reasonable and good faith effort to identify any Indian tribes or Native Hawaiian organizations that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties per 36 CFR § 800.2(c-f).

The State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking. If the scope of work changes in any way, or if artifacts or bones are discovered, please notify this office immediately.

If you have any questions, please contact Brian Grennell, Cultural Resource Management Specialist, at (517) 335-2721 or by email at grennellb@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking**. Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

Brian D. Conway
State Historic Preservation Officer

BDC:MMF:BGG

Enclosure(s)

copy: Jay Fitzgerald, Grosse Pointe Club

STATE OF MICHIGAN
RICK SNYDER
GOVERNOR
MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY
STATE HISTORIC PRESERVATION OFFICE
GARY HEIDEL
EXECUTIVE DIRECTOR

PAULA MILLER
U S CUSTOMS AND BORDER PROTECTION
DEPARTMENT OF HOMELAND SECURITY
WASHINGTON DC 20229

RE: ACCEPTANCE LETTER

ER09-494 Secure Border Initiative (SBInet) Detroit Project - Grosse Pointe, T1S, R13E, Grosse Pointe, Wayne County (CBP/DHS)

We have received comments from the State Historic Preservation Office (SHPO) in regards to the above-cited undertaking at the location noted above. We intend to follow the conditions as specified by the SHPO.

I concur: _____ Date: _____

Printed name and title of agency official: _____

APPENDIX B
LIST OF FEDERAL AND STATE PROTECTED SPECIES

	Eastern prairie fringed orchid (*Plantathera leucophaea*)	Threatened	Mesic to wet prairies and meadows
Wayne	Indiana bat (*Myotis sodalis*)	Endangered	Summer habitat includes small to medium river and stream corridors with well developed riparian woods; woodlots within 1 to 3 miles of small to medium rivers and streams; and upland forests. Caves and mines as hibernacula.
	Eastern massasauga (*Sistrurus catenatus catenatus*)	Candidate	
	Northern riffleshell (*Dysnomia torulosa rangiana*)	Endangered	Large streams and small rivers in firm sand of riffle areas; also occurs in Lake Erie

	Rayed Bean Mussel (*Villosa fabalis*)	Candidate	
	Eastern prairie fringed orchid (*Plantathera leucophaea*)	Threatened	Mesic to wet prairies and meadows

Revised July 2009

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Back

Last updated: July 28, 2009

County Element Data

Choose a new county

Wayne County

Current as of 12/17/2009

Status Code Definitions

Scientific Name	Common Name	Federal Status	State Status
Acipenser fulvescens	Lake sturgeon		T
Adlumia fungosa	Climbing fumitory		SC
Alasmidonta marginata	Elktoe		SC
Ambystoma texanum	Smallmouth salamander		E
Ammocrypta pellucida	Eastern sand darter		T
Ammodramus henslowii	Henslow's sparrow		E
Ammodramus savannarum	Grasshopper sparrow		SC
Angelica venenosa	Hairy angelica		SC
Arabis missouriensis var. deamii	Missouri rock-cress		SC
Aristida longespica	Three-awned grass		T
Aristolochia serpentaria	Virginia snakeroot		T
Asclepias hirtella	Tall green milkweed		T
Asclepias sullivantii	Sullivant's milkweed		T
Betula populifolia	Gray birch		SC
Calephelis mutica	Swamp metalmark		SC
Camassia scilloides	Wild hyacinth		T
Carex squarrosa	Sedge		SC
Castanea dentata	American chestnut		E
Clemmys guttata	Spotted turtle		T
Clinostomus elongatus	Redside dace		E
Cyclonaias tuberculata	Purple wartyback		T
Diarrhena obovata	Beak grass		T
Eleocharis engelmannii	Engelmann's spike rush		SC
Epioblasma obliquata perobliqua	White catspaw	LE	E
Epioblasma torulosa rangiana	Northern riffleshell	LE	E
Epioblasma triquetra	Snuffbox		E
Eragrostis pilosa	Small love grass		SC
Euonymus atropurpurea	Wahoo		SC

Scientific Name	Common Name	Federal Status	State Status
Euphorbia commutata	Tinted spurge		T
Euphyes dukesi	Dukes' skipper		T
Falco peregrinus	Peregrine falcon		E
Floodplain Forest			
Fraxinus profunda	Pumpkin ash		T
Galearis spectabilis	Showy orchis		T
Gallinula chloropus	Common moorhen		T
Gentianella quinquefolia	Stiff gentian		T
Geum virginianum	Pale avens		SC
Great Blue Heron Rookery	Great Blue Heron Rookery		
Great Lakes Marsh			
Haliaeetus leucocephalus	Bald eagle		SC
Hybanthus concolor	Green violet		SC
Hydrastis canadensis	Goldenseal		T
Hypericum gentianoides	Gentian-leaved St. John's-wort		SC
Ixobrychus exilis	Least bittern		T
Jeffersonia diphylla	Twinleaf		SC
Juncus brachycarpus	Short-fruited rush		T
Juncus vaseyi	Vasey's rush		T
Justicia americana	Water willow		T
Lactuca floridana	Woodland lettuce		T
Lakeplain Oak Openings			
Lakeplain Wet Prairie	Alkaline Wet Prairie, Midwest Type		
Lakeplain Wet-mesic Prairie	Alkaline Tallgrass Prairie, Midwest Type		
Lampsilis fasciola	Wavyrayed lampmussel		T
Leucospora multifida	Conobea		SC
Liatris squarrosa	Plains blazing star		X
Liparis liliifolia	Purple twayblade		SC
Lycopodium appressum	Northern prostrate clubmoss		SC
Lycopus virginicus	Virginia water-horehound		T
Lysimachia hybrida	Swamp candles		X
Macrhybopsis storeriana	Silver chub		SC
Mesic Sand Prairie	Moist Sand Prairie, Midwest Type		
Mesic Southern Forest	Rich Forest, Central Midwest Type		
Mimulus alatus	Winged monkey flower		X

Scientific Name	Common Name	Federal Status	State Status
Morus rubra	Red mulberry		T
Moxostoma carinatum	River redhorse		T
Myotis sodalis	Indiana bat	LE	E
Nelumbo lutea	American lotus		T
Notropis anogenus	Pugnose shiner		E
Noturus miurus	Brindled madtom		SC
Noturus stigmosus	Northern madtom		E
Nycticorax nycticorax	Black-crowned night-heron		SC
Obovaria olivaria	Hickorynut		E
Obovaria subrotunda	Round hickorynut		E
Opsopoeodus emiliae	Pugnose minnow		E
Panax quinquefolius	Ginseng		T
Pantherophis gloydi	Eastern fox snake		T
Penstemon pallidus	Pale beard tongue		SC
Percina copelandi	Channel darter		E
Percina shumardi	River darter		E
Phaseolus polystachios	Wild bean		X
Platanthera leucophaea	Prairie white-fringed orchid	LT	E
Pleurobema sintoxia	Round pigtoe		SC
Polygala cruciata	Cross-leaved milkwort		SC
Pomatiopsis cincinnatiensis	Brown walker		SC
Potentilla paradoxa	Sand cinquefoil		T
Prosartes maculata	Nodding mandarin		X
Protonotaria citrea	Prothonotary warbler		SC
Quercus shumardii	Shumard's oak		SC
Rallus elegans	King rail		E
Rhexia virginica	Meadow beauty		SC
Ruellia humilis	Hairy wild petunia		T
Sagittaria montevidensis	Arrowhead		T
Sander canadensis	Sauger		T
Sanguisorba canadensis	Canadian burnet		E
Scirpus clintonii	Clinton's bulrush		SC
Scleria pauciflora	Few-flowered nut rush		E
Scleria triglomerata	Tall nut rush		SC
Silene virginica	Fire pink		E
Silphium laciniatum	Compass plant		T
Silphium perfoliatum	Cup plant		T
Simpsonaias ambigua	Salamander mussel		E

Scientific Name	Common Name	Federal Status	State Status
Sistrurus catenatus catenatus	Eastern massasauga	C	SC
Sisyrinchium hastile	Blue-eyed-grass		X
Smilax herbacea	Smooth carrion-flower		SC
Speyeria idalia	Regal fritillary		E
Spiza americana	Dickcissel		SC
Sterna forsteri	Forster's tern		T
Sterna hirundo	Common tern		T
Strophostyles helvula	Trailing wild Bean		SC
Sturnella neglecta	Western meadowlark		SC
Stylurus laurae	Laura's snaketail		SC
Stylurus notatus	Elusive snaketail		SC
Stylurus plagiatus	Russet-tipped clubtail		SC
Trillium recurvatum	Prairie trillium		T
Villosa fabalis	Rayed bean	C	E
Villosa iris	Rainbow		SC
Wet-mesic Flatwoods			
Wisteria frutescens	Wisteria		T
Zizania aquatica var. aquatica	Wild rice		T

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APPENDIX C
AIR QUALITY MODEL CALCULATIONS

CALCULATION SHEET-COMBUSTABLE EMISSIONS-GROSSE POINT SEA

Assumptions for Cumbustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Diesel Road Compactors	0	100	8	30	0
Diesel Dump Truck	1	300	8	30	72000
Diesel Excavator	1	300	8	30	72000
Diesel Trenchers	1	175	8	30	42000
Diesel Bore/Drill Rigs	1	300	8	30	72000
Diesel Cement & Mortar Mixers	1	300	8	30	72000
Diesel Cranes	1	175	8	30	42000
Diesel Graders	0	300	8	30	0
Diesel Tractors/Loaders/Backhoes	1	100	8	30	24000
Diesel Bull Dozers	0	300	8	30	0
Diesel Front End Loaders	1	300	8	30	72000
Diesel Fork Lifts	1	100	8	30	24000
Diesel Generator Set	2	40	8	30	19200

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS-GROSSE POINT SEA

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Diesel Road Compactors	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Dump Truck	0.035	0.164	0.436	0.033	0.032	0.059	42.528
Diesel Excavator	0.027	0.103	0.365	0.025	0.025	0.059	42.552
Diesel Trenchers	0.024	0.113	0.269	0.021	0.020	0.034	24.799
Diesel Bore/Drill Rigs	0.048	0.182	0.567	0.040	0.039	0.058	42.029
Diesel Cement & Mortar Mixers	0.048	0.184	0.578	0.038	0.037	0.058	42.029
Diesel Cranes	0.020	0.060	0.265	0.016	0.015	0.034	24.540
Diesel Graders	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Tractors/Loaders/Backhoes	0.049	0.217	0.191	0.036	0.035	0.025	18.278
Diesel Bull Dozers	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Front End Loaders	0.030	0.123	0.397	0.028	0.027	0.059	42.544
Diesel Aerial Lifts	0.052	0.205	0.226	0.037	0.036	0.025	18.270
Diesel Generator Set	0.026	0.080	0.126	0.015	0.015	0.017	12.426
Total Emissions	**0.359**	**1.431**	**3.420**	**0.289**	**0.281**	**0.427**	**309.995**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-GROSSE POINT SEA

Personal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	15	90	10	10	0.02	0.02	0.04
CO	12.4	15.7	15	90	10	10	0.18	0.23	0.42
NOx	0.95	1.22	15	90	10	10	0.01	0.02	0.03
PM-10	0.0052	0.0065	15	90	10	10	0.00	0.00	0.00
PM 2.5	0.0049	0.006	15	90	10	10	0.00	0.00	0.00
CO2	369	511	15	90	10	10	5.49	7.60	13.09

Heavy Duty Trucks Delivery Trucks to Construction Sight									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck (g/mile)	33,000-60,000 lb semi trailer rig (g/mile)	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	20	90	1	1	0.00	0.00	0.00
CO	1.32	3.21	20	90	1	1	0.00	0.01	0.01
NOx	4.97	12.6	20	90	1	1	0.01	0.02	0.03
PM-10	0.12	0.33	20	90	1	1	0.00	0.00	0.00
PM 2.5	0.13	0.36	20	90	1	1	0.00	0.00	0.00
CO2	536	536	20	90	1	1	1.06	1.06	2.13

POV Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.
Fleet Charactorization: 20 POVs commuting to work were 50% are pick up trucks and 50% passenger cars

Conversion factor:	gms to tons
	0.000001102

Construction Fugitive Dust Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006
PM2.5 Emissions			
PM2.5 Multiplier	0.10	(10% of PM10 emissions assumed to be PM2.5)	EPA 2001; EPA 2006
Control Efficiency	0.50	(assume 50% control efficiency for PM10 and PM2.5 emissions)	EPA 2001; EPA 2006

Project Assumptions

Construction Area (0.19 ton PM10/acre-month)

Duration of Soil Disturbance in Proje	3	months
Length		miles
Length (converted)	0	feet
Width		feet
Area	1.50	acres

Conversion Factors

0.000022957	acres per sq. feet
5280	feet per mile

Staging Areas

Duration of Construction Project	12	months
Length		miles
Length (converted)		feet
Width		feet
Area		acres

Project Emissions (tons/year)

	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled	PM2.5 controlled
Construction Area (0.19 ton PM10/ac	0.86	0.43	0.09	0.04
Staging Areas	0.00	0.00	0.00	0.00
Total	**0.86**	**0.43**	**0.09**	**0.04**

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999.* EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants.* Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1).* Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

Construction Fugitive Dust Emission Factors

General Construction Activities Emission Factor

0.19 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The area-based emission factor for construction activities is based on a study completed by the Midwest Research Institute (MRI) Improvement of Specific Emission Factors (BACM Project No. 1), March 29, 1996. The MRI study evaluated seven construction projects in Nevada and California (Las Vegas, Coachella Valley, South Coast Air Basin, and the San Joaquin Valley). The study determined an average emission factor of 0.11 ton PM10/acre-month for sites without large-scale cut/fill operations. A worst-case emission factor of 0.42 ton PM10/acre-month was calculated for sites with active large-scale earth moving operations. The monthly emission factors are based on 168 work-hours per month (MRI 1996). A subsequent MRI Report in 1999, Estimating Particulate Matter Emissions from Construction Operations, calculated the 0.19 ton PM10/acre-month emission factor by applying 25% of the large-scale earthmoving emission factor (0.42 ton PM10/acre-month) and 75% of the average emission factor (0.11 ton PM10/acre-month).

The 0.19 ton PM10/acre-month emission factor is referenced by the EPA for non-residential construction activities in recent procedures documents for the National Emission Inventory (EPA 2001; EPA 2006). The 0.19 ton PM10/acre-month emission factor represents a refinement of EPA's original AP-42 area-based total suspended particle (TSP) emission factor in Section 13.2.3 Heavy Construction Operations. In addition to the EPA, this methodology is also supported by the South Coast Air Quality Management District and the Western Regional Air Partnership (WRAP) which is funded by the EPA and is administered jointly by the Western Governor's Association and the National Tribal Environmental Council. The emission factor is assumed to encompass a variety of non-residential construction activities including building construction (commercial, industrial, institutional, governmental), public works, and travel on unpaved roads. The EPA National Emission Inventory documentation assumes that the emission factors are uncontrolled and recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas.

New Road Construction Emission Factor

0.42 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The emission factor for new road construction is based on the worst-case conditions emission factor from the MRI 1996 study described above (0.42 tons PM10/acre-month). It is assumed that road construction involves extensive earthmoving and heavy construction vehicle travel resulting in emissions that are higher than other general construction projects. The 0.42 ton PM10/acre-month emission factor for road construction is referenced in recent procedures documents for the EPA National Emission Inventory (EPA 2001; EPA 2006).

PM2.5 Multiplier **0.10**

PM2.5 emissions are estimated by applying a particle size multiplier of 0.10 to PM10 emissions. This methodology is consistent with the procedures documents for the National Emission Inventory (EPA 2006).

Control Efficiency for PM10 and PM2.5 **0.50**

The EPA National Emission Inventory documentation recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas. Wetting controls will be applied during project construction (EPA 2006).

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999.* EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants.* Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1).* Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

CALCULATION SHEET-SUMMARY OF EMISSIONS-GROSSE POINT SEA

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)									
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO_2	CO2	CO2 Equivalents	Total CO2
Construction Equipment Combustable Emissions	0.36	1.43	3.42	0.29	0.28	0.43	310	1,072	1,382
Construction Site-fugitive PM-10	NA	NA	NA	0.43	0.04	NA	NA		
Construction Workers Commuter & Trucking	0.05	0.43	0.07	0.00	0.00	NA	15	22	37
Total emissions	0.40	1.86	3.49	0.72	0.32	0.43	325	1,094	1,420
De minimis threshold	100.00	NA	100.00	NA	100.00	100.00			25,000

1. Wayne County is in Non-attainment for PM-2.5. USEPA Greenbook last accessed 8/30/2010: http://www.epa.gov/air/oaqps/greenbk/astate.html

Carbon Equivalents	Conversion Factor
N2O or NOx	311
Methane or VOCs	25

Source: EPA 2010 Reference, Tables and Conversions, Inventory of U.S. Greenhouse Gas Emissions and Sinks; http://www.epa.gov/climatechange/emissions/usinventoryreport.html