

Draft Environmental Assessment

Proposed MVAA Site, Green Oak Township, Michigan

Prepared for

Michigan Veterans Affairs Agency

June 15, 2018

2180250

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EXECUTIVE SUMMARY

The Michigan Veterans Affairs Agency (MVAA) on behalf of the Department of Veteran Affairs (VA) is proposing the construction of a Community Living Center (CLC) on the site of the former W.J. Maxey Boys Training School west of the current Woodland Center Correctional facility. The proposed site is in Green Oak Township in Livingston County, Michigan. The majority of the project property occupies the W ¼ NE ¼ Section 31, T1N R6E. The west side of the project property lies east of Lemen Road in the E 1/8 NW ¼ Section 31, and the southwest corner of the project property lies in the center of Section 31 at its NW 1/4 NW ¼ NW ¼ SE ¼ and its NE ¼ NE ¼ NE ¼ SW ¼ east of Lemen Road and west of Cygnet Pond. The project is located on Livingston County parcel 16-31-200-001. The W.J. Maxey Boys Training School was closed in 2016 and the buildings razed in 2018.

The proposed CLC will consist of 128 beds divided into four small house based neighborhoods around a central community center. The planned facility is approximately 160,000 square feet. Figure 1.1 shows the project area map and Figure 1.2 shows the proposed site plan for the project.

The CLCs emphasize layouts that create common living spaces for socialization, dining, and activities. The CLC is intended to provide nursing, domiciliary, and adult daycare services in a more home-like environment. Medical services will be geared to serve the special needs of veterans including elder care, physical and occupational therapy, and mental health services in an environment with military values and structure. CLCs include several, typically four, one-story neighborhood buildings around a central community center. The neighborhood buildings include resident rooms (with private bathrooms), shared kitchen and dining facilities, and shared living spaces. The community center building includes multipurpose rooms, a chapel, café and bistro, occupational and physical therapy spaces, medical offices, and administrative offices. The grounds surrounding the facility are designed for additional recreation and exercise opportunities with landscaped walking paths and gardens.

The site currently has a security fence running the perimeter of the parcel with open access points for Woodland Center Correctional staff. The Woodland Center Correctional facility is surrounded by a 20-foot-high security fence, and access is highly controlled through the correctional facility office. The site is currently a combination of maintained lawn, wetlands and water, and paved roads and sidewalks. Cygnet Pond is to the east between the proposed facility and Woodland Center Correctional facility. The site is currently accessed primarily via M-36 from US-23.

The project is being partially funded with State Home Construction Grant dollars administered by the VA; the federal funding requires that the National Environmental Policy Act (NEPA) be implemented in the planning process. NEPA requires the potential environmental effects of the Proposed Action be considered in the selection of a final alternative. The consideration and assessment of the Proposed Action on a variety of resources are included in this draft Environmental Assessment (EA).

The Proposed Action and a No Action Alternative were evaluated for each resource category. This draft EA will be available for public review and comment for 30 days; all comments will be addressed and incorporated into the final EA. The assessment process undertaken for this draft EA has found that no significant adverse impacts to the human and natural environment are anticipated with the Proposed Action with the implementation of best management practices (BMP) and applicable regulatory compliance (environmental permitting.) This EA concludes that a Finding of No Significant Impact (FONSI) is appropriate and that an Environmental Impact Statement (EIS) is not required.

1.0 INTRODUCTION

1.1 Project Background

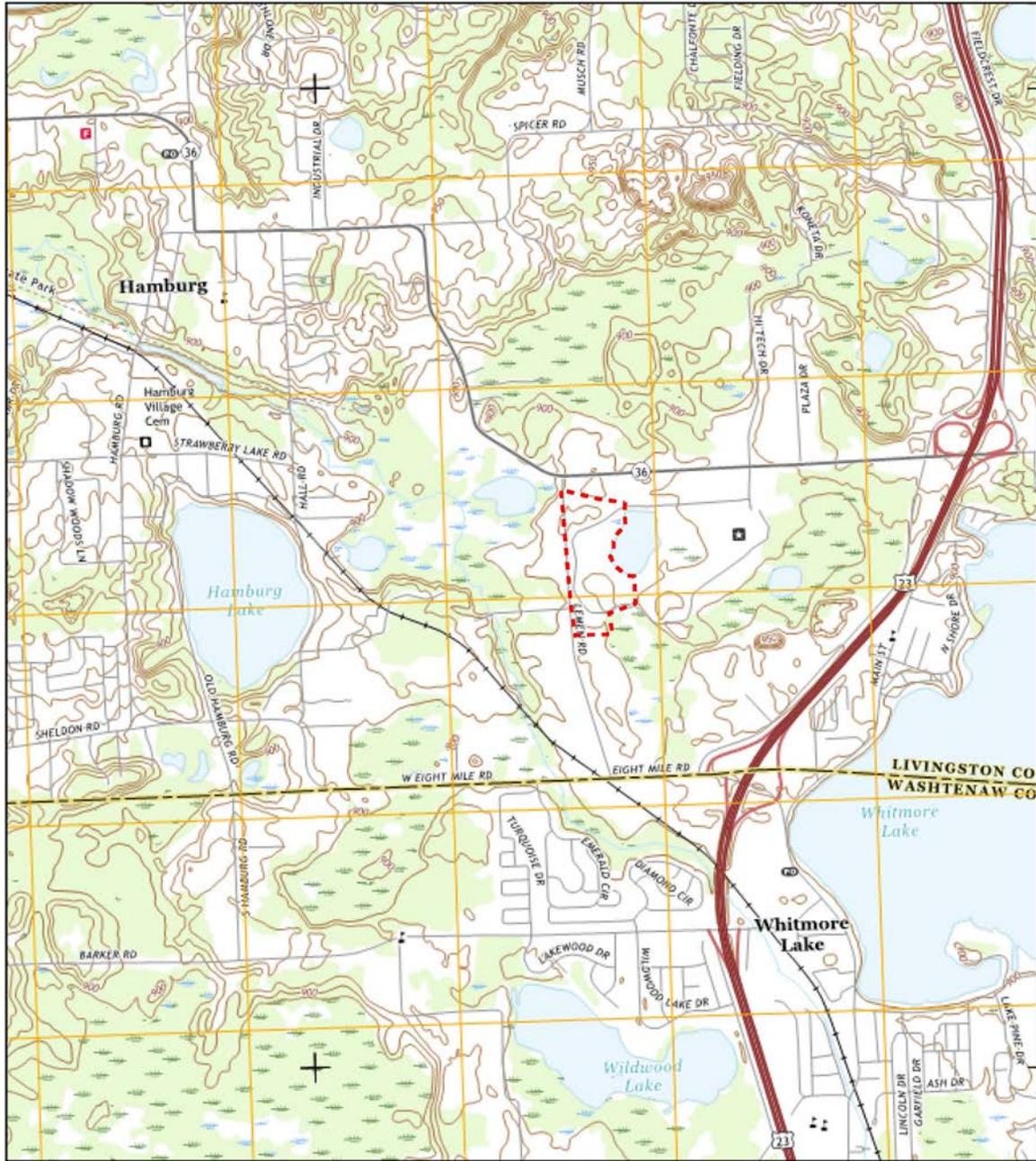
The Michigan Veterans Affairs Agency (MVAA) on behalf of the Department of Veteran Affairs (VA) is proposing the construction of a Community Living Center (CLC) on the site of the former W.J. Maxey Boys Training School west of the current Woodland Center Correctional facility. The proposed site is in Green Oak Township in Livingston County, Michigan. The majority of the project property occupies the W ¼ NE ¼ Section 31, T1N R6E. The west side of the project property lies east of Lemen Road in the E 1/8 NW ¼ Section 31, and the southwest corner of the project property lies in the center of Section 31 at its NW 1/4 NW ¼ NW ¼ SE ¼ and its NE ¼ NE ¼ SW ¼ east of Lemen Road and west of Cygnet Pond. The project is located on Livingston County parcel 16-31-200-001. Previously the project site was the home to the W.J. Maxey Boys Training School, which served as a state-run facility for juvenile offenders requiring additional mental health treatment along with educational services. The facility closed in October of 2015, and by the spring of 2018, the buildings were razed. The active Woodland Center Correctional facility occupies the eastern portion of the parcel.

The CLC is proposed for the southwest corner of the parcel with access from Lemen Road. The site currently has a security fence running the perimeter of the parcel with open access points for Woodland Center Correctional staff. The Woodland Center Correctional facility is surrounded by a 20-foot-high security fence, and access is highly controlled through the correctional facility office. The site is currently a combination of maintained lawn, wetlands and water, and paved roads and sidewalks. Cygnet Pond is to the east between the proposed facility and Woodland Center Correctional facility. The site is currently accessed primarily via M-36 from US-23.

The proposed CLC will consist of 128 beds divided into four small house based neighborhoods around a central community center. The planned facility is approximately 160,000 square feet. Figure 1.1 shows the project area map and Figure 1.2 shows the proposed site plan for the project.

This draft Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA, and in accordance with the VA NEPA Interim Guidance for Projects. NEPA established a national policy for an environmental review process on actions undertaken by federal agencies. The process is intended to assist public officials to make informed decisions based on environmental effects of proposed federal agency actions.

Figure 1.1: Site Location Map



1 inch = 2,000 feet

Legend

 Proposed Site

Green Oak Township
 Livingston County, Michigan
Proposed MVA Site
 June, 2018
Prein&Newhof
 2180250

Figure 1.2: Proposed Site Plan



1.2 Purpose and Need

The VA recognizes the need to partner with state governments to create more long-term care facilities for an aging veteran population. The State Home Grants for Construction or Acquisition of State Homes program provides funding to state entities for the construction or acquisition of long-term care facilities for veterans. Specifically the format of those facilities is that of a small house versus traditional dormitory style care facilities. 38 CFR 59.130 (c) requires that “State homes should be planned to approximate the home atmosphere as closely as possible. The interior and exterior should provide an attractive and home-like environment for elderly residents. The site will

be located in a safe, secure, residential-type area that is accessible to acute medical care facilities, community activities and amenities, and transportation facilities typical of the area.”

The Michigan Veterans Affairs Agency currently operates two state veterans homes that serve the entire State of Michigan. The D.J. Jacobetti Home for Veterans is located in the City of Marquette in Marquette County and the Grand Rapids Homes for Veterans is located in City of Grand Rapids in Kent County. Respectively, these homes have 206 beds and 570 beds (386 of which are in use) for a state total of 776 beds for nursing and domiciliary care. These facilities are typical of past care concepts, utilizing a dormitory style hospital with little to no shared spaces. The Community Living Center (CLC) concept is more home-like than institutional.

Michigan has a population of 602,630 veterans statewide. Of that number, 313,194 are over the age of 65 (AFF 2018). Within an hour’s drive of the proposed site, there are 148,553 veterans over the age of 65 (TTP 2018 AFF 2018). This is approximately 47 percent of the State’s veterans, and equates to a ratio of 404 veterans for every one bed in the state. The closest state veterans home to the proposed site is in Grand Rapids, 125 miles and approximately a two hour drive. This is generally beyond the realm of reasonable access for veterans from the Southeast Michigan area. Private nursing home options are available in the Southeast Michigan area, but may not necessarily best meet the unique needs of veterans.

The CLCs emphasize layouts that create common living spaces for socialization, dining, and activities. The CLC is intended to provide nursing, domiciliary, and adult daycare services in a more home-like environment. Medical services will be geared to serve the special needs of veterans including elder care, physical and occupational therapy, and mental health services in an environment with military values and structure. CLCs include several, typically four, one-story neighborhood buildings around a central community center. The neighborhood buildings include resident rooms (with private bathrooms), shared kitchen and dining facilities, and shared living spaces. The community center building includes multipurpose rooms, a chapel, café and bistro, occupational and physical therapy spaces, medical offices, and administrative offices. The grounds surrounding the facility are designed for additional recreation and exercise opportunities with landscaped walking paths and gardens.

A need for to provide additional facilities for nursing, domiciliary, and adult daycare services for Michigan’s veterans exists. The construction of a 128-bed CLC at the Maxey site would fulfill that need.

2.0 ALTERNATIVES

2.1 Development of Alternatives

NEPA, CEQ, and the VA's NEPA regulations (38 CFR Part 26) require that alternatives be developed for the proposed action. The alternatives are considered and evaluated to determine which ones meet the purpose and need as discussed above. Other locations were considered in the state of Michigan; however, the proposed site in Green Oak Township has reasonable access (approximately a one hour drive) to over 47 percent of Michigan's veterans over the age of 65 and meets the criteria set forth in CFR 38 Part 59 for proximity to acute health and other supporting facilities.

2.2 Proposed Action

The Proposed Action is the construction of a new 128-bed MVAA facility in Green Oak Township, Livingston County, Michigan. The CLC would be constructed in the southwest portion of the existing Woodland Center Correctional Facility parcel specifically.

2.3 No Action Alternative

The Proposed Action would not be implemented in the No Action Alternative. The MVAA would not construct a 128-bed CLC in Green Oak Township. 47 percent of Michigan veterans over the age of 65 would continue to encounter unreasonable travel distances and time to access the Grand Rapids Veterans Home. The veteran population of Southeast Michigan is expected to grow in the coming years and would continue to be underserved by the No Action Alternative. The site would remain as State of Michigan property and remain undeveloped. The No Action alternative was carried forth for analysis in this EA for comparison to the Proposed Action. The No Action Alternative does not meet the Purpose and Need of the Proposed Action.

2.4 Alternatives Retained For Detailed Analysis

The Proposed Action and the No Action Alternative were retained for further analysis in the EA.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

3.1 Aesthetics

3.1.1 Existing Environment

The site served as the W.J. Maxey Boys Training School until 2015. Since then, the buildings have been razed. Now all that remains of the previous site are a few small structures serving as storage and guard houses, along with sidewalks and roads. Across Lemen Road there are several residences and a rod and gun club that can view the proposed project site.

The project site and surrounding area are open and grassy. This area is not densely populated, being mostly rural with one story buildings and various tree species. Overhead wires can be seen when driving along Lemen Road and M-36, both of which are two-lane roads that border the site. Cygnet Pond is located on the east side of the site. Woodland Center Correctional Facility is located further to the east and is surrounded by a 20-foot-high security fence. A shorter security fence currently borders most of the proposed site.

3.1.2 Environmental Consequences

3.1.2.1 Proposed Action

The style of the development will be “neighborhood-like” with smaller buildings centered on neighborhood and community centers; the facility will fit the area’s character without dominating the landscape or looking out-of-place. Under the Proposed Action, the site would be developed and maintained as an assisted living facility and thus the security fencing around the proposed site could be moved to the east side of Cygnet Pond. Moving the securing fence from the perimeter of the proposed site to a location closer to the Woodland Center Correctional Facility would improve overall aesthetics of the area. In addition, the site will be landscaped and include walking paths. The proposed facility will be designed with aesthetics as key consideration compared to the previous institutional buildings that occupied the site. The view from the residences and the rod and gun club will be improved over the previous training school campus.

The site’s aesthetics would be impacted by the Proposed Action during construction. This may include equipment, materials, and workers at the site. Large equipment such as excavators, haul trucks, dozers, and skid-steers will be visible during clearing, grading, construction, and cleanup. Construction equipment and activities may be seen by various groups, including visitors to the

Woodland Correctional Facility, nearby residents, pedestrians, and drivers on Lemen Road. However, the contractors will keep construction-related activities as unobtrusive as possible by storing materials and equipment out of public view if possible, and will clean up the site at regular intervals. In addition, a temporary construction fence shall be implemented on the perimeter of the proposed site by the contractor to reduce the visibility of construction.

No negative impacts are anticipated to aesthetics of the area with the Proposed Action.

3.1.2.2 Alternative Action

Just as the Proposed Action, the Alternative Action will be “neighborhood-like” with smaller buildings. This should blend into the surrounding areas current infrastructure. Construction activities will temporarily impact the Aesthetics, but measures will be taken during construction to mitigate this as much as possible.

3.1.2.3 No Action

The No Action Alternative would not involve any construction activity and therefore, would not result in temporary visual/aesthetic impacts to existing views to and from adjacent areas. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.2 Land Use

3.2.1 Existing Environment

The site is in Green Oak Charter Township, which is in Livingston County, southeast of the City of Brighton. Green Oaks Charter Township identified the site’s parcel number to be 16-31-200-001. This parcel is shared by the proposed site, as well as Woodland Correctional Facility, and is about 184 acres. The portion of the parcel that is planned to be used for the VA facility is about 40 acres, with about 20 of these acres being part of the proposed campus.

Based on a review of historical photos at the site and the Phase I ESA report, the land was historically farmland. The W.J. Maxey Boys Training School resided on the proposed building location since about 1958. The facility was closed in 2015 with the buildings being demolished shortly after. The structures had full basements, and these still remain on the site. The buildings that did not get razed include a pole barn and a guard house. Other than these buildings and remaining service roads, the site is currently vacant.

The site's current zoning designation is Public Land. Nearby zoning designations include General Industrial, Limited Industrial, and Highway Commercial. The Green Oak Charter Township Master Plan puts the site's future zoning as Limited Industrial surrounded by General Commercial and General Industrial. The majority of the township is zoned Low to Medium Residential and Recreation Conservation.

To the north west of the proposed site, just across Lemen Road, sits Whitemore Lake Rod & Gun Club. To the south is vacant wooded land and farmland. The Woodland Center Correctional Facility resides to the east of the proposed site, which opened in 2009 and has a security level of I and IV. In addition, this facility has a Crisis Stabilization Program, which assists prisoners who experience serious mental health crises and provides ongoing mental health treatment. The correctional facility consists of series of buildings, sidewalks, roads and parking lots. A 20 foot tall anti-climb fence and an electronic detection system surround The Woodland Center Correctional Facility. A separate shorter chain link security fence topped with barbed wire borders the rest of the proposed site. A service road that is about 1.5 miles in length wraps around the perimeter of the site. This road is about 21 feet wide, and connects the proposed site to Woodland Correctional Facility. Soil borings at these locations revealed that this road has five (5) inches of asphalt above eight (8) to ten (10) inches of aggregate base. Additionally, a concrete foot path runs around Cygnet pond on the inside of the service road. This sidewalk has a system of tunnels running underneath that connected the former housing units and supplied heat.

3.2.2 Environmental Consequences

3.2.2.1 Proposed Action

The existing zoning designation of Public Land by Green Oaks Charter Township would have to change from Public Land to Village Mixed-Use District. However, Green Oaks Charter Township shows the future plan for the zoning of this area is to change from Public Lands to Limited Industrial. In either case, building an assisted living facility would require a Special Approval Use Permit in order to rezone the land to Village Mixed-Use District.

Under the Proposed Action, the existing security fencing around the perimeter of the proposed site would be moved to the east side of Cygnet Pond. This would allow the Woodland Center Correctional Facility to keep a secure outer boarder, and also create an open feel to the proposed campus. No impacts to Land Use are anticipated with the Proposed Action.

3.2.2.2 No Action

Under the No Action Alternative, no construction or development would take place. This would mean no impacts to land use would occur. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.3 Air Quality

Air quality is characterized by the concentrations of various pollutants, the climate conditions that influence atmospheric stability, and pollutant dispersion. In 1970, Congress passed the Clean Air Act (CAA) (most recently amended in 1990) to protect air quality in the U.S., and created the U.S. Environmental Protection Agency (EPA) to enforce environmental regulations, including the CAA. The CAA, and subsequent amendments, is a federal law implemented through regulations codified in Title 40 of the Code of Federal Regulations (CFR) Parts 50 through 97. U.S. EPA has delegated authority to individual states, tribes, and local agencies to administer and enforce air quality regulations. Individual states may establish equivalent or more stringent requirements into their own rules. Air quality permitting, compliance and enforcement activities in the state of Michigan are coordinated by Michigan Department of Environmental Quality (MDEQ).

Michigan has adopted the Air Pollution Control Rules pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451)..

To protect public health and welfare nationwide, the CAA requires that U.S. EPA establish National Ambient Air Quality Standards (NAAQS) for certain common and widespread pollutants based on the latest science. U.S. EPA has set air quality standards (defined in terms of threshold concentrations) for the following criteria pollutants:

- Sulfur dioxide (SO₂)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO₂)
- Particulate matter (PM); specifically, PM equal to or less than 10 microns in diameter (PM₁₀) and PM equal to or less than 2.5 microns in diameter (PM_{2.5})
- Ozone (O₃)
- Lead (Pb)

The CAA identifies two (2) types of NAAQS. Primary NAAQS are established to provide protection for human health, especially for "sensitive" populations such as asthmatics, children, and the elderly. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Geographic areas are designated as attainment, non-attainment, or unclassified for each criteria pollutant with respect to the NAAQS. If monitoring data is within the established NAAQS, the U.S. EPA may designate an area as "attainment;" areas in which pollutant concentrations exceed the NAAQS are designated as "non-attainment" for those pollutants. States are required to adopt enforceable State Implementation Plans (SIPs) to achieve and maintain air quality that meets the NAAQS. An EPA-approved maintenance plan is required when an area is reclassified from nonattainment to attainment.

3.3.1 Existing Site Conditions

The proposed Maxey VA facility will be located in Green Oak Township, Livingston County, Michigan. On April 30, 2018, U.S. EPA designated an eight (8) county area, including Livingston County, as marginal nonattainment for the 2015 primary and secondary 8-hour ozone standard. Livingston County is designated in maintenance for the 2006 PM_{2.5} 24-hour standard and 1997 PM_{2.5} annual standard (revoked). The area is designated attainment or attainment/unclassified for the other criteria pollutants.

MDEQ has established an ambient air monitoring network throughout the state of Michigan to collect representative air quality data. MDEQ operates 20 ambient air monitoring stations in the Detroit metropolitan area, near Livingston County. Ambient monitoring data and networks are reviewed periodically to ensure that they reflect the actual air quality of the area and are measuring for pollutants of concern. The nearest monitor to the proposed project site is the Ypsilanti monitoring station (AIRS ID No. 261610008), approximately 16 miles southeast of the proposed project site. The Ypsilanti monitoring station records data for ozone and PM_{2.5} to determine typical ambient concentrations. Current air pollution sources in the area primarily include local minor sources of air pollutants, emissions from vehicles traveling on U.S. Route 23, and distant industrial sources (NEPAssist, 2018).

The climate for the project area is classified as subtypes Dfa or Dfb using the updated Köppen-Geiger classification system, indicating snowy (during winter), fully humid (high precipitation), with warm to hot summers (Kottek et al., 2006). Summertime temperatures average above 80°F for

highs and near 60°F for lows. Wintertime temperatures average near 30°F for highs and less than 20°F for lows. The warmest month is July and the coldest months are January and February. Annual average temperatures are 58.6°F for highs, and 40.4°F for lows (NCDC, 2017). The average annual rainfall is 33.5 inches and the average annual snowfall is 42.5 inches. Current air pollution sources in the area primarily include vehicle traffic from I-94 to the west as well as from surrounding industrial facilities. The National Climatic Data Center (NCDC 2017) provides additional information about the surrounding metro Detroit area, as follows:

Air pollution comes primarily from heavy industry spread along both shores of the waterway from Port Huron to Toledo. However, wind dispersion is usually sufficient to keep it from becoming a major hazard.

The nearest sensitive air quality receptor in the vicinity of the proposed Maxey VA facility is the Green Oak School, located approximately 0.7 miles to the southeast. The nearest hospital is approximately seven (7) miles from the site, and the nearest church is approximately 1.5 miles away (NEPAssist, 2018). Additionally, the VA housing facility may constitute a sensitive receptor.

3.3.2 Environmental Consequences

3.3.2.1 Proposed Action

Some impact on air quality is anticipated during the construction phase of the project due to dust generated from earthwork, pollutant emissions that occur from welding, surface coating, and construction equipment. Exhaust emissions from construction equipment and other vehicles would result in localized short-term increases in CO and NO_x.

Construction of the proposed Maxey VA facility would include grading approximately 25 acres resulting in localized, short-term increases in fugitive dust due to wind erosion. Part 91 of Michigan's Natural Resources and Environmental Protection Act for Soil Erosion and Sedimentation Control regulates construction activities to mitigate wind erosion during construction activities. Control measures generally include water or chemical dust suppression, aggregate cover, or seeding of loose soil to mitigate fugitive dust. A soil erosion control permit issued by the Livingston County Drain Commissioner – County Enforcing Agency (CEA) is required prior to commencing construction activities.

- During normal facility operations, the proposed Maxey VA facility will be considered a minor stationary source, and would be to be exempt from the requirement to obtain an air

permit to install pursuant to the Michigan Air Pollution Control Rules. The VA is proposing to install and operate the following emission units at the Maxey VA facility:

- Three (3) Lochinvar Crest natural gas-fired boilers with maximum heat input ratings of approximately 2 million British Thermal Units per hour (MMBtu/hr) each, used for building heat;
- Three (3) Lochinvar Armor natural gas-fired water heaters with maximum heat input ratings of approximately 0.2 MMBtu/hr each;
- One (1) CAT® 480 volt diesel-fired emergency generator;
- One (1) single-cell Marley Cooling tower with a total heat rejection rating of approximately 8.7 MMBtu/hr, to provide cooling to the condensate water from the three (3) heating boilers.

The proposed heating, ventilation, and air conditioning (HVAC) and emergency equipment is common to housing facilities of this size, and has been selected for use at other VA housing facilities. Installation of modern, natural gas-fired equipment will mitigate emissions. The emergency generator will be required to comply with provisions of 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart IIII, which regulate emissions from reciprocating internal combustion engines, in accordance with the CAA.

Normal operation of the Maxey VA facility will also result in emissions from vehicles associated with workers, residents, and visitors commuting to and from the facility. Impacts are expected to be similar to other residential facilities of this size.

In accordance with the General Conformity Rule, codified under 40 CFR Part 93, a federal agency must demonstrate that an action does not interfere with a state's plans to attain and maintain national standards for air quality. However, the General Conformity Rule is not applicable to:

- Actions covered by the transportation conformity rule;
- Actions with associated emissions below specified de minimis levels; and
- Other actions that are either exempt or presumed to conform.

The Maxey VA facility is anticipated to generate less than the 40 CFR Part 93 de minimis thresholds of 100 tons per year for NO_x, volatile organic compounds (VOCs) and PM_{2.5}; therefore,

the action is considered de minimis and does not meet applicability of the General Conformity Rule. Impacts to the air quality in excess of NAAQS are not anticipated during normal operations and therefore the proposed action is not anticipated to have a significant adverse effect.

3.3.2.2 No Action Alternative

If the Maxey VA facility is not constructed, fugitive dust and criteria pollutant emissions would not occur. Existing air quality conditions would not be affected under the No Action Alternative. However, the No Action Alternative does not satisfy the Purpose and Need of the Proposed Action to provide housing to U.S. Veterans.

3.4 Cultural Resources

Consideration of cultural resources for NEPA includes archaeological resources and historic structures in the surrounding area. This EA focused on sites and structures listed in, or eligible for nomination to, the National Register of Historic Places (NRHP), and the regulations (36 CFR Part 800) for implementing Section 106 of the National Historic Preservation Act of 1996.

3.4.1 Existing Environment

The project is located in Green Oak Township, Livingston County, Michigan near the active Woodland Center Correctional Facility. The site was the location of the former W. J. Maxey Boy's Training School which was constructed in phases from 1958 to 1972 (Jackson 2018). The school operated as a juvenile reformatory and school till 2015 when it was closed. Buildings from the facility were razed in the spring of 2018 leaving the roadways, sidewalks, and a perimeter fence on the property. A Phase I Archaeological Investigation was performed in May 2018 to determine the potential for underground cultural resources.

3.4.2 Environmental Consequences

3.4.2.1 Proposed Actions

Results from the archaeological investigation found that it is unlikely that any archaeological resources remain in the area due to past ground disturbance in construction and demolition of the site. No additional archaeological investigation is recommended. However, if any artifacts, features or human remains should be unearthed during any future removal of the cement drives, sidewalks or parking lots (i.e., areas not accessible to shovel testing), then the MVAA or party responsible for the construction will be required to contact the Michigan State Historic Preservation Office (SHPO) in

Lansing. In addition, if any artifacts, features or human remains should be unearthed during removal of the overburden of fill from the west and north sides of the wetland that border the south side of the correctional facility property, the SHPO must be contacted.

Cultural resources impacts may also include impacts to structures beyond the property which would be included in the Area of Potential Effect (APE) designated in the Section 106 review with SHPO. Buildings and neighborhoods adjacent may have their historical character impacted with a proposed action. Structures over 50 years old are of concern as they may be eligible for listing on the National Historical Register (NHR). The buildings on Lemen Road to west were constructed from 1950 to 1998. Some of the structures are more than 50 years old. It is anticipated that the proposed facility would not impact the structures eligible for listing as the proposed facility is of a similar institutional nature to the previous use. Views from the structures to the new facility would be an improvement from the Training School views. Additionally, the perimeter fence is planned to be moved farther east behind the new facility improving the view. No negative impacts to cultural resources are anticipated with the Proposed Action.

3.4.2.2 No Action

Under no action, no construction would occur and no disturbance to the ground would occur resulting in no impacts. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.5 Geology and Soils

3.5.1 Existing Environment

A soil map from the United States Geologic Survey (USGS) shows the soils on the site designated as loam, loamy sands, and muck, with slopes generally less than two percent.

These soils are can be considered as prime farmland, prime farmland if drained, and soils of unique importance. However, in correspondence with the United States Department of Agriculture (USDA), the state conservationist ruled that the area was identified as “urbanized area” and thus is not covered by the Farmland Protection Policy Act. It was concluded by the USDA that the proposed action would not have any negative impact on prime and/or unique farmland. See Appendix B for agency correspondence.

Soil borings performed on the site found the majority of the soil to be stiff silty clay with some areas of coarse sand.

The Phase 1 Environmental Site Assessment, per American Society for Testing and Materials (ASTM) standard E1527-05/13 and 40 CFR Part 312, performed by Prein&Newhof, investigated any possible contamination of soils on the site. It was found that there was a confirmed release from underground storage tanks of gasoline and diesel fuel at the Woodland Correctional Facility in 1999. The tanks were removed and the soil contamination determined to be in an approximate 60-foot by 45-foot area. Additionally, groundwater flow was determined to be in the east-northeasterly direction. Given the small area of the contamination and groundwater movement away from the site, the contamination is not expected to have a direct environmental impact.

Historic aerials show that a railroad corridor used to go through the northern portion of the proposed site. Railroads have the tendency to disperse heavy metals along their routes, so testing would be recommended to determine if any contaminants are present.

3.5.2 Environmental Consequences

3.5.2.1 Proposed Actions

Removal of soils from the site is not a concern with the proposed action as there is likely no contamination on this portion of the site. Cut and fill will be minimal as the site is mostly flat, but some soil removal will be necessary for the installation of new underground utilities. If contaminated soils are encountered, the Due Care Plan would be followed to mitigate these soils.

Soil erosion and sedimentation control best management practices (BMPs) will be utilized in order to minimize any effects on local waterways as the exposure of subsurface soils during construction activity may result in increased erosion and sedimentation, both via rain events or airborne particulate matter. While a National Pollutant Discharge Elimination System permit would not be necessary for the work performed on the site, all requirements would be followed in order to minimize short-term erosion and sedimentation impacts.

3.5.2.2 No Action

Under no action, no construction would occur and no impacts to geology or soils would result. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.6 Hydrology and Water Quality

3.6.1 Existing Environment

The project area is located within the Huron River watershed, with its sub watershed being Horseshoe Creekshed. According to the Huron River Watershed Council, Horseshoe Creekshed has only seven (7) percent impervious surfaces. Livingston County contains quite a few wetlands and lakes that connect to the Huron River. Horseshoe Creek flows from south to north, approximately 2,000 feet to the west of the proposed site. This creek then flows to the Huron River, which leads into Lake Erie. Directly to the east of the site sits Cygnet Pond, which the Michigan Department of Environmental Quality MDEQ identified as a wetland in the National Wetland Inventory.

Groundwater level observations were made during and following the completion of drilling for soil borings, which was completed in May of 2018. Water was encountered within 10 of the 19 borings at depths ranging from 3.5 to 18.5 feet. These depths correspond to elevations of 904 to 889. At the completion of drilling, water or wet cave-ins were generally measured near the depth at which water had been encountered. It should be recognized that groundwater levels are likely to fluctuate as a result of seasonal variations in precipitation and in response to changes in the surface level of the nearby Cygnet Pond and the marshy area southeast of the site.

Based on these water level observations, it can be assumed that much of the water encountered at shallow depths is surface water runoff that is “perched” in granular soil seams that are contained within predominantly low permeability cohesive soil.

The site generally slopes down to Cygnet Pond from the surrounding roads, M-36 and Lemen Road, along with the existing private drive that runs along the south border of the site. Cygnet Pond, being the low point on the site, receives the majority of the stormwater that falls on the site. An existing storm system also brings stormwater to Cygnet Pond from catch basins and storm pipes. The current stormwater system likely discharges directly into Cygnet Pond without any secondary water quality treatment beyond the sumps in the catch basins that collect some suspended solids and sediment.

Cygnet Pond has an outlet on the northwest side of the lake. A debris grate separates large organic matter before the water exits the pond at a weir structure. A 60-foot-long, 48-inch-diameter pipe carries water under the service road to the north, which discharges on the other side of a berm. The water forms a small pond at this location. Once the water has reached a high enough level it then

flows into another storm pipe, which runs north under the security fence, and discharges into a low lying wetland area further north of the fence and south of M-36.

The drinking water for Woodland correctional facility is pumped from underground aquifers. There are two wells on this site that pump at 300 gallons per minute to a 100,000 gallon capacity water tank. The Woodland Correctional Facility, the Green Oak Township building, and the Northfield Township Waste Water Treatment plant all use this supply of water.

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

Under the Proposed Action, the land would be redeveloped on the south west side of Cygnet pond. This should result in a similar amount of stormwater runoff compared to the previous site from impervious surfaces. The Proposed Action would require a new stormwater system to drain the sites impervious surfaces. An increase to the localized water quality in the area is expected with the implementation of a modern stormwater collection and treatment system.

Stormwater controls will be permitted and implemented during construction and facility operation. Construction would be completed in accordance with the sites stormwater pollution prevention plan (SWPPP), corresponding best management practices (BMPs), and with the Livingston County Drain Commissioner's Procedures and Design Criteria for Stormwater Management. The stormwater routed to Cygnet Pond will require a permit under part 303, Wetland Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451.

The existing pipes and structures flowing out of Cygnet Pond may need further inspection to ensure that they could carry additional stormwater.

It is possible that the Proposed Action may increase the need for the amount of water that is pumped from the underground aquifer. Excessive water being pumped from the aquifer may have adverse effects on the water table in the area. The aquifer would need to be monitored in the future to ensure that any increases in pumping would not negatively affect the groundwater levels.

Based on the groundwater conditions encountered during the soil boring investigation and the anticipated depth of construction excavations, we do not anticipate significant groundwater-related construction difficulties. It is anticipated that accumulations of groundwater or surface water runoff within excavations can be handled by pumping from sumps formed at the base of the excavation.

3.6.2.2 No Action

Under the No Action Alternative, no construction or development would take place. This would mean no impacts to hydrology and water quality would occur. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.7 Wildlife and Habitat

Existing Environment

The proposed project site is currently maintained lawn with a few mature trees dotting the landscape. There are existing roads, sidewalks, and other infrastructure that served the Training School. To the south is a wetland and to the east is Cygnet pond.

A Threatened and Endangered Species Evaluation was completed in May of 2018 to identify habitat and assess potential effects on nationally listed threatened and endangered species.

The United States Fish and Wildlife Service (USFWS) web database indicated the presence of six federally protected species within Kent County, Michigan including:

- Indiana Bat (*Myotis sodalists* endangered)
- Northern Long-eared Bat (*Myotis septentrionalis*; threatened)
- Eastern Massassauga (*Sistrurus catenatus*; threatened)
- Poweshiek Skipperling (*Oarisma poweshiek*; endangered),
- Snuffbox (*Epioblasma triquetra*; endangered)
- Eastern Prairie Fringed Orchid (*Platanthera eucophaea*, threatened).

The site was evaluated for potential habitat for those species. No potential habitat was found for the Poweshiek Skipperling, Snuffbox Mussel, and Eastern Prairie Fringed Orchid. Potential habitat was found for the Indiana Bat and Northern Long-eared Bat in the wetland southwest of the site and in dead trees along Cygnet Pond. The Northern Long-eared Bat can also find suitable habitat in the mature trees east of the site. Suitable habitat was also identified for the Eastern Massassauga Rattlesnake in the wetlands east and southwest of the site.

Michigan state protected species were also researched. Four species were found to be potentially in the project area:

- Canadian Milk Vetch (*Astragalus canadensis*, threatened)
- Blanchard's Cricket Frog (*Acris blanchardi*, threatened)
- Mat Muhly (*Muhlenbergia richardsonis*, endangered)
- Orange or Yellow Fringed Orchid (*Platanthera ciliaris*, endangered)
- Virginia Flax (*Linum virginicum*, threatened)

The site was evaluated for potential habitat for those species. No potential habitat was found for the Canadian Milk Vetch, May Muhly, Orange or Yellow Fringed Orchid, and Virginia Flax.

Potentially suitable habitat was near Cygnet pond for the Blanchards Cricket Frog in the lacustrine wetlands along the shoreline.

3.7.1 Environmental Consequences

3.7.1.1 Proposed Actions

Potential negative effects to protected species are limited to the Indiana Bat, the Northern Long-eared Bat, and the Eastern Massassuga Rattlesnake. Impacts to the bat species can be avoided by only clearing trees from October 1st through March 30th. If this timeline is not possible, USFWS consultation would have to be performed and approved by USFWS prior to any tree clearing outside the recommended window. Impacts to the Eastern Massassuga Rattlesnake can be mitigated by implementing the USFWS Best Management Practices (BMPs) from the USFWS Environmental Screen for Eastern Massassuga Rattlesnake in Michigan (March 14, 2017). These BMPs include the use of wildlife safe erosion control and site restoration materials that do not have mesh or netting that may ensnare wildlife. Avoidance of wetlands around Cygnet Lake is preferred action to avoid impacting the state protected species Blanchard Cricket Frog.

3.7.1.2 No Action

Under no action, no construction would occur and no disturbance to the ground would occur resulting in no impacts. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.8 Noise

3.8.1 3.8 Noise

3.8.2 3.8.1 Existing Environment

24-hour noise measurements were conducted at four (4) locations between 12:00 p.m. on May 7, 2018, and 12:00 p.m. on May 8, 2018. The locations are described below and shown graphically in Figure 3.8.1.

Short-term detailed sound level measurements were measured between 10:30 a.m. and 12:00 p.m. on May 7, 2018 and again between 1:30 p.m. and 2:30 p.m. on May 8, 2018. Table 3.8 below shows the daytime and nighttime average sound levels from the long-term measurements.

Figure 3.8.1: Google Earth View of Woodland Site Measurement Locations

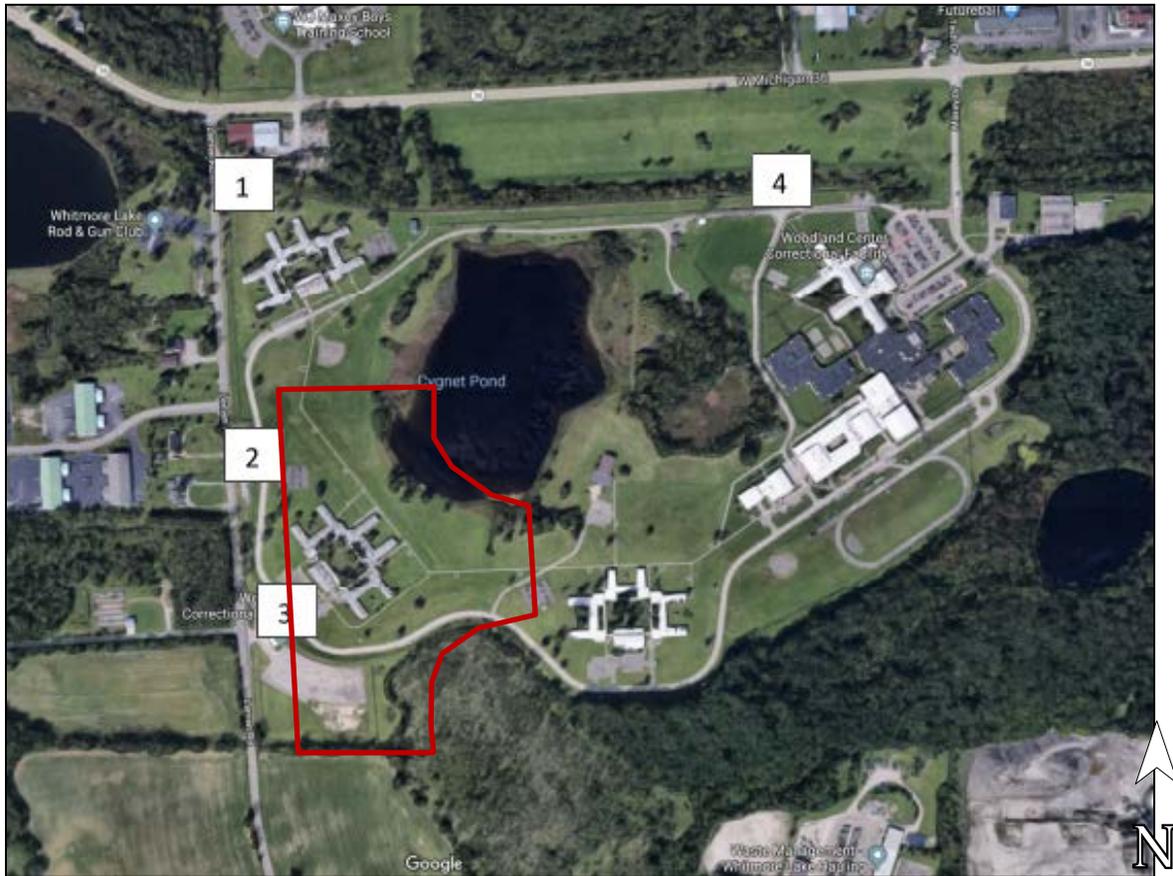


Table 3.8: Day and Nighttime LAeq Measurements at Each Location

	<i>LAeq [dBA]</i>				
	Location 1	Location 2	Location 3	Location 4	Noise Ordinance
Daytime LAeq	62	64	59	60	60
Nighttime LAeq	58	53	50	58	50

As the results above show, daytime LAeq levels range from 59-64 dBA. Locations 1, 2, and 4 equal or exceed the daytime maximum level of 60 dBA, set forth by the Green Oak Charter Township Noise Ordinance. Location 2 had the highest daytime LAeq of 64 dBA due to its proximity to nearby residences and Lemen Rd. The measured nighttime LAeq levels range from 50-58 dBA, all of which equal or exceed the nighttime maximum level of 50 dBA.

As the noise ordinance states in section 10-104-b-3, when the ambient sound level at the receiving premises equals or exceeds the maximum allowable sound pressure level, then the ambient sound level plus 3 dB is the standard which cannot be exceeded by the source. Therefore, 3 dB will be added to the measured sound pressure levels (where applicable) for comparison to the analysis of the mechanical equipment, below.

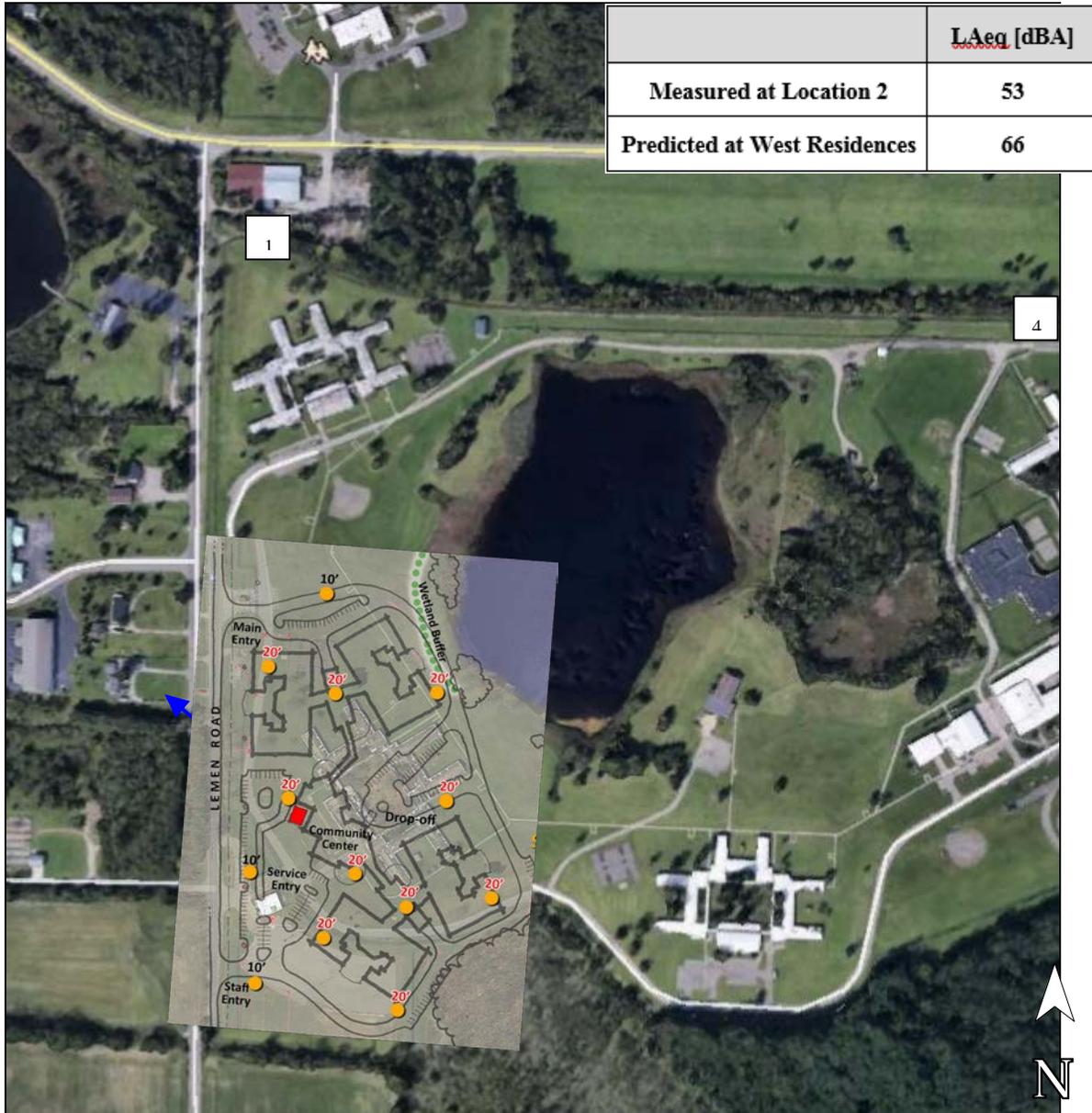
3.8.3 Environmental Consequences

3.8.3.1 Proposed Actions

Noise contributions of the future mechanical equipment on the Woodland site were evaluated. Noise data for the generators and cooling tower was provided by Prein & Newhof. A Level 2 Sound Enclosure option for the generators will be implemented at the site. Sound data for this option was used in the analysis, and as a result, the cooling tower will radiate significantly higher noise levels than the generators.

Figure 3 below shows the location of the mechanical equipment (red) and the propagation path (blue) to the nearby residences.

Figure 3.8.2: Analysis of Mechanical Noise to Nearby Receivers



The west residences are the greatest concern due to their proximity to the site, the direct line of sight to the mechanical units, and the noise sensitivity of homes. As shown in Figure 3 above, the predicted LAeq at the east residences from mechanical noise alone, is 66 dBA. This is 2 dBA louder than the measured daytime LAeq at Location 2 on Lemen Rd, and less than the permissible daytime level of 67 dBA. However, the predicted LAeq of 66 dBA exceeds the permissible nighttime maximum level of 56 dBA. Mitigation should be pursued to reduce noise for these residences.

Additionally, noise generated by construction activity at the site may be a temporary noise-impact, however, this is allowable by the Green Oaks Charter Township Noise Ordinance, as detailed in

section 10-101-Definitions of Power Equipment, and 10-104-d-1, shown above, provided it occurs within the specified time period.

The Proposed Action would result in an increase of 2 dBA at nearby residences, compared to the daytime background noise level measured on May 7. Using the provided noise data for the generator and cooling tower, the predicted LAeq at the residences is 66 dBA, which will exceed the nighttime limit of 56 dBA. Mitigations steps will need to be taken to achieve appropriate nighttime sound levels for these residences.

3.8.3.2 No Action

If No Action is chosen, no construction would occur, and no additional mechanical equipment would be added. The noise levels would not increase beyond the current measured sound levels.

3.9 Floodplains, Wetlands, and Coastal Zone Management

3.9.1 Existing Environment

A Federal Emergency Management Agency flood rate insurance map shows no floodplains on the site. There are wetlands located on site including a large pond. The pond and wetland areas located along the pond's edge are approximately 18.5 acres, while wetlands identified at the sound end of the site total approximately two acres. Located over 40 miles inland from the nearest major water body, the site is not located in a coastal zone.

3.9.2 Environmental Consequences

3.9.2.1 Proposed Action

Construction activities for the proposed action may encroach upon wetlands at the south end of the site, but major impacts are not expected. In order to prevent any sediment or loose soils from effecting nearby water courses and wetlands, soil erosion and sedimentation control (SESC) best management practices (BMPs) would be utilized to reduce erosion and runoff containing sediment.

In accordance with Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act (PA) 451, a Joint Permit Application (JPA) would be filed with Michigan Department of Environmental Quality (MDEQ) to summarize any impacts to floodplains or wetlands.

3.9.2.2 No Action

Under no action, no construction would occur and there would be no impacts to floodplains, wetlands, or coastal zones.

3.10 Socioeconomics

3.10.1 Existing Environment

Green Oak Township’s estimated 2016 population was 18,214, up from the 2010 census number of 17,476 and 2000 number of 15,618. The township has 985 veterans, 5.4 percent of township population. Livingston County’s population in 2015 was 187,316, and its veteran population was estimated to be 10,300 in 2018 (5.7 percent) with 5,208 over the age of 65 (VA.gov Website).

	<i>Green Oak Township</i>	<i>Livingston County</i>	<i>Michigan</i>
Population	18,214	187,316	9,909,600
Veteran Population	985 (5.4%)	10,300 (5.7%)	602,630 (6.1%)
Unemployment Rate	6.2%	5.5%	8.5%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

The three largest employment sectors within the Township were “Educational services, and health care and social assistance” (19 percent), “Manufacturing” (19 percent), and “Professional, scientific, and management, and administrative and waste management services” (14 percent).

Green Oak Township’s median household income was estimated at \$76,892 in 2016. Green Oak Township had an estimated 6.2 percent unemployment rate in 2016, down from previous years, which averaged 9.5 percent (2015-2010). Of families within the Township, 4.6 percent had a year’s earnings below the poverty level. Families with female householder, no husband present where 19.1 percent of this group.

Livingston County has 163 licensed physicians (general medicine) (LARA), or 454 persons per doctor. Livingston County has two hospitals and a total of 235 beds. Livingston County has 7 state-licensed homes for the aged with a total of 662 beds (MDHHS). This is capacity for 6.5% of the total county population over 75 (10,221). According to MDHHS, this is an excess of 32 beds.

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

The Proposed Action would lead to increased job opportunities in Green Oak Township. Once the site is built, it would need building maintenance, landscape maintenance, receptionist and other office employees, nurses, physicians, kitchen and food service, and security. The proposed 128-bed facility could generate 160 permanent jobs.

Construction may utilize local contractors, but the temporary job increase for the area is not anticipated to be significant.

3.10.2.2 No Action

Under no action, there would be no changes to the site, thus no effect on the surrounding community. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.11 Community Services

3.11.1 Existing Environment

The proposed site is located in Green Oak Township, which has a population of 18,214 according to American Community Survey (ACS) 5-year population estimates, and near Whitmore Lake, which has a population of 6,988 according to ACS 5-year population estimates. The proposed 128-bed facility would essentially replace a 60-bed juvenile detention facility that was closed in 2015 in regards to community service needs.

There is existing water distribution system on the site as well as private utilities. The Northfield Township Wastewater Plant, located just across Lemen Road to the west, currently treats sewage from the Woodland Correctional Facility and did so previously for the Maxey Juvenile Detention Center.

Emergency services nearby include the Green Oak Township Police and Fire Departments. The nearest fire station is located about three miles north of the proposed site, while the police department is about one-half mile further north than the fire station. The nearest ambulance service is located about eight miles away while the nearest hospital is over 10 miles away.

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

Water is provided to the site by a well that also serves the Woodland Correctional Facility. The water is pumped up to a reservoir which provides water pressure and fire flows for the site.

The sanitary sewer system would connect into the system that flows to the Northfield Township Wastewater Plant. Increasing flows to the plant would not result in any capacity issues, per a conversation with the plant's superintendent.

Ambulance services might be adversely affected by the addition of the proposed facility. Livingston County has a population of 185,841 according to ACS 5-year population estimates, but only has two hospitals with a total of 235 beds, which covers .12% of the county's population. Adding a facility with 128 full-time residents who require some level of medical care could potentially add strain on the local ambulance and hospital services.

3.11.2.2 No Action

Under no action the proposed facility would not be built and there would be no effect on community services.

3.12 Solid and Hazardous Materials

3.12.1 Existing Environment

The Woodland Correctional Facility currently maintains the site. There is a garage on site that contains some vehicle maintenance fluids, but otherwise there are no hazardous materials on site. Because the site is unused, no solid wastes are produced except grass clippings and other wastes that come with landscaping maintenance.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Action

Under the proposed action, construction activity would produce some waste. This would be collected and removed off site as part of the contractor's responsibility. Proper vehicle and machine maintenance should prevent any incidental releases of vehicle fluids during construction.

Post-construction, the living facility will produce solid wastes such as food waste and other general living wastes. Some medical wastes may be produced as the facility will care for minor needs of the residents. The Michigan Veterans Affairs Agency (MVAA) currently has a state-wide contract with Stericycle to remove all medical wastes from its facilities (R. Courter, personal communication, May 22, 2018).

Hazardous materials such as cleaning supplies and pest control substances required to keep the facility clean and well-maintained will be kept on site.

3.12.2.2 No Action

Under no action, the facility would not be built and the site would not see a change in solid waste production or the presence of hazardous material from its current state. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.13 Transportation and Parking

3.13.1 Existing Environment

The site being considered for the VA facility is bounded by Lemen Road to west and south of M-36 to the North. Lemen Road is two lane paved roadway with gravel shoulders and is maintained by the Livingston County Road Commission. M-36 is a two lane paved Michigan Department of Transportation (MDOT) trunkline with paved shoulders. M-36 is under the jurisdiction of MDOT.

2018 traffic data collected for this report shows Lemen Road having an average daily traffic (ADT) volume of 3,891 vehicles per day and M-36 having a ADT of 7,221.

The site of the proposed action is currently located in the southwest corner of the existing boundary fence of the active Woodland Center Correction Facility. Access to the site is either through two unlocked entry points located to the east on the perimeter roadway of the entire facility or through two controlled entry points on Lemen Road. Historically, staff and visitors to the W.J. Maxey Training School would have the site via the entry points on Lemen Road. A parking area remains on the site in the southwest corner of the parcel outside of the perimeter fence. The main parking area of the active Woodland Center Correctional Facility is located to the east of the parcel with access off of M-36 from the north.

The previous W.J. Maxey Training facility employed 65 employees at its time of closure. Institute of Transportation Engineers (ITE) Trip Generation 8th Edition was used to approximately the average weekday daily, AM peak hour, and PM peak hour traffic for comparison to the Proposed Action and the Alternative Action.

3.13.2 Environmental Consequences

3.13.2.1 Proposed Action

Access to the site in the Proposed Action will be from Lemen Road. The existing northern entry point will be repurposed as the main entry into the facility and the southern entry point will be relocated farther to the south as a service and staff entry. Parking will be distributed throughout the site for visitors and residents with a designated staff parking lot near the south of the site.

Traffic to the site based on ITE rates for nursing home facilities has been developed. A comparison table to the previous correctional facility use is below for reference. Traffic volumes were based on W.J. Maxey Training School having 65 employees at the time of closing and the proposed VA facility will have 128 beds.

<i>Land Use</i>	<i>Weekday</i>	<i>AM Peak Hour</i>	<i>PM Peak Hour</i>
Correctional Facility	117	27	15
Nursing Home	351	22	28
Net Difference	234	-5	13

Overall daily and PM peak hour traffic may increase, while AM peak hour decreases slightly. When compared to the overall traffic volumes present in the area surrounding the site traffic impacts are expected to be minimal. Both roadways are operating at less than peak capacity. Driveway permits would be coordinated with the Livingston County Road Commission.

3.5.2.3 No Action

No action would result in no increases to traffic in the surrounding area. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.14 Utilities

3.14.1 Existing Environment

Electricity, gas, telecommunication, and sewer are the public utilities that are required for the proposed site. Local public utilities serving the proposed site are DTE Energy for electricity, Consumers Energy for gas, telecommunication provided by Comcast and AT&T, and sewer provided by Northfield Township. In addition, there is an existing steam system that was previously used to heat the Maxey Building, but this is not currently in use.

The site has an existing storm sewer network on the west side of the site that abuts Lemen Road. This system drains directly into Cygnet Pond. Generally, twelve (12) inch pipes from catch basins drain into fifteen (15) inch pipes that discharge into the pond at outlet structures. This network flows from west to east. The current stormwater system likely discharges directly into Cygnet Pond without any secondary water quality treatment beyond the sumps in the catch basins that collect some suspended solids and sediment.

Currently the Woodland Center Correctional Facility owns the sanitary sewer system and pump station that are on the site. This system discharges to Northfield Township waste water treatment plant (WWTP), which is located approximately a quarter mile to the west of the proposed site. The

Northfield Township WWTP allows Green Oaks Township to send sewage to be treated, but currently the Woodland Center Correctional Facility is on a separate agreement with the Northfield Township WWTP.

Record plans show that six (6) inch sanitary laterals run from buildings to eight (8) inch and ten (10) inch sanitary sewer mains. All of the existing sanitary mains lead to a lift station on the west side of the site. This lift station has been recently renovated, and should be able to pump more sewage than it is currently receiving. Once sewage reaches the pump station, it is carried away by an 8 inch force main that runs south along the east side of Lemen Road for about 760 feet south, where it then crosses the road heading west until it reaches the Northfield Township WWTP.

Currently the Woodland Center Correctional Facility owns the water tower and the water system, which was also previously used by the Maxey site. The site is not hooked up to a municipal water supply. The Woodland Center Correctional Facility, Green Oak Township building, and the Northfield Township WWTP all currently use this supply of water. The water is pumped from a well into a water tower, which is on the north side of the site. This tower has a storage capacity of 100,000 gallons. The two pumps that fill this tank each operate at 300 gallons per minute. The fire flow for the site is currently estimated at 840 gallons per minute with a static pressure of 25 pounds per square inch. To put this into perspective, Wurb and James (2002) state, "typical fire flows might be 500 gallons per minute for a residential fire, 2,000 gallons per minute for a small commercial or industrial area, and 3,000 gallons per minute in the main commercial area." Wurb and James also state, "during peak hourly demand, the pressure should be greater than 35 pounds per square inch, and greater than 20 pounds per square inch for peak daily demand plus the fire flow."

According to record plans, the site has an existing water main system that is still being used by the Woodland Center Correctional Facility. The water comes east out of the water tower, and then proceeds around the site in a clockwise direction. This run starts by feeding water to the Woodland Center Correctional Facility, and then continues to the existing Maxey site. No loop is seen in the system. Generally, water distribution systems perform better and deliver higher quality water (taste, chlorine residuals, etc.) when they are looped. A dead end on a water system allows for water to sit for longer than is preferred, affecting some qualities but still remaining safe. This system is composed of eight (8) inch water main, with four (4) inch and six (6) inch services feeding the buildings. This loop appears to dead-end at the Maxey building that was previously located on the northwest end of the site. It is unclear if the water main was blocked off after the Maxey site was decommissioned.

3.14.2 Environmental Consequences

3.14.2.1 Proposed Action:

The Proposed Action will be served by the existing sanitary lift station onsite, and will send sewage to Northfield Township WWTP. A new sanitary sewer system will be created onsite to carry sewage to the existing pump station. The Department of Environmental Quality (DEQ) Wastewater Treatment Systems Manual estimates that about 100 gallons per day of sewage is expected from a rest home for a patient and employee. Assuming 128 beds for the proposed site, then the expected sewage is estimated to be 12,800 gallons per day. This increase in the amount of sewage sent to the Northfield Township WWTP from the proposed site is not expected to be an issue for the WWTP to treat. According to Dan Lewis, the superintendent at the Northfield Township WWTP, the agreement that the Woodland Center Correctional Facility has with the WWTP would likely apply to the proposed site.

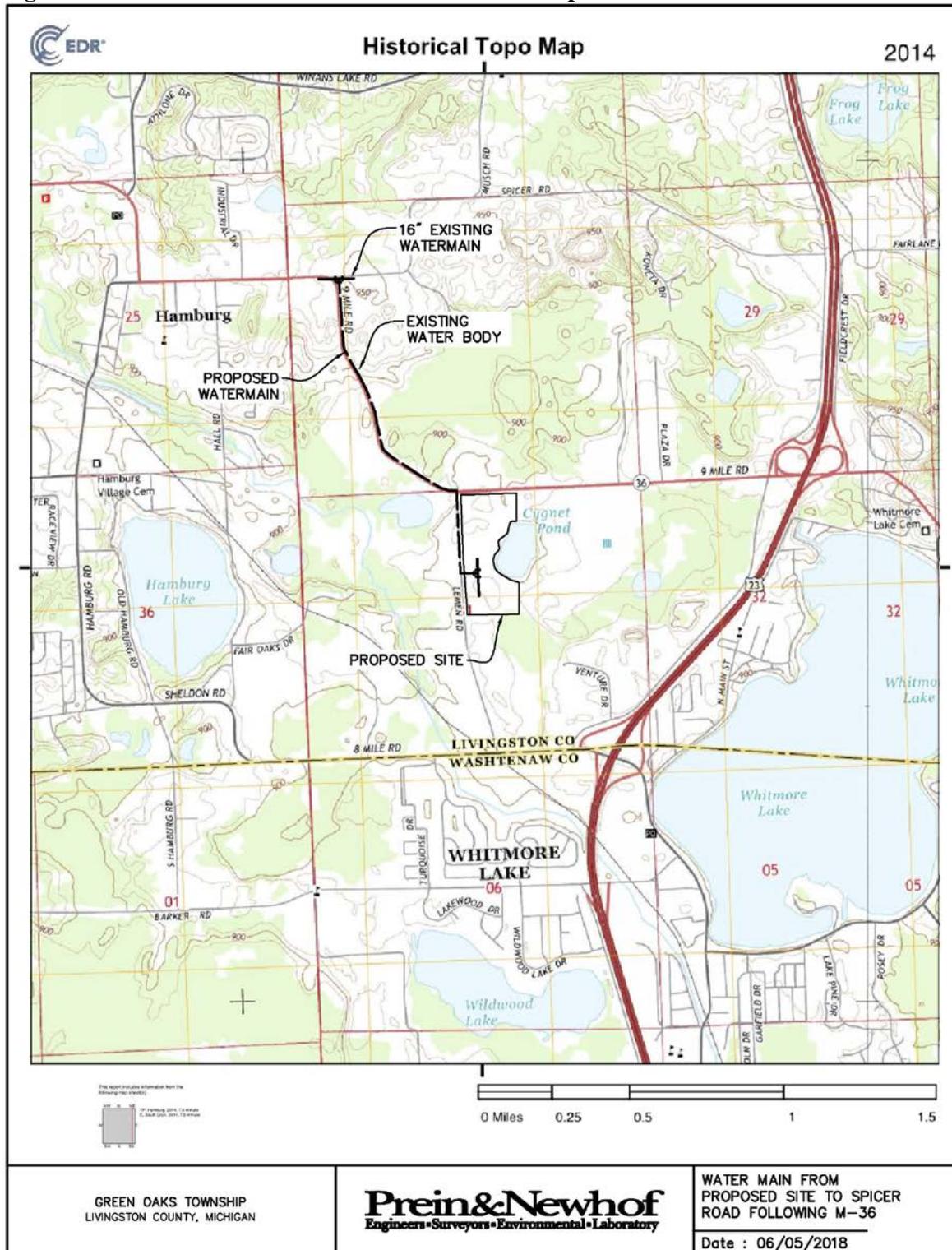
Wetland delineations have identified Cygnet Pond as a wetland. Stormwater will likely be routed from the new site and discharged to Cygnet Pond. The discharge of storm water to a Cygnet Pond is considered a use, and will require a permit under part 303, Wetland Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451. In addition, the existing system flowing out of Cygnet Pond may need further inspection to ensure that it could sustain additional stormwater. An increase to the localized water quality in the area is expected with the implementation of a modern stormwater collection and treatment system.

The Proposed Action will use the existing onsite water tower and water network for a water supply by tapping into the system to the east of the site, near the border of the Woodland Center Correctional Facility. New water main would need to be placed from this location, up to all of the buildings to supply institutional uses and fire suppression flows.

The Proposed Action may reduce the overall water pressure in the existing system based on initial flow testing. It is possible that the reduction of water pressure would result in insufficient pressures for desired fire flows. If this is confirmed with additional testing, then the Proposed Action may have to be connected to a municipal water system to increase pressure and flow. The nearest municipal water main system is located north west of the site along M-36 to Spicer Road, where Livingston Community Water Authority has a 16-inch water main. Green Oaks Township is currently unable provide a connection to this line; however, the Township of Hamburg has a large amount of an existing water allotment available for purchase, and from preliminary conversations seem optimistic at the prospect of selling this allotment. In addition to the connections, associated impacts from water main construction on 6,300 feet of M-36 to Spicer Road would be incurred (see Figure 3.14.2). The scope of this Environmental

Assessment is limited to the Maxey Site boundaries. Depending on the funding source of the water main, additional NEPA regulations may apply.

Figure 3.14.2: Schematic of water main from M-36 to Spicer Road



3.14.2.2 Alternative Action

Anticipated impacts to utilities are predicted to be the same as those for the Proposed Action. The sewage will be pumped from the onsite lift station to Northfield Township WWTP. The stormwater would be routed to Cygnet pond, and the existing outlet structures from Cygnet Pond would have to be inspected to ensure it could withstand more discharge. The water supply would come from the existing onsite pumps, but if fire flow pressure was insufficient, then a municipal water supply may be required.

3.14.2.3 No Action

Under the No Action Alternative, no construction or development would take place. This would mean no impacts to utilities would occur. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.15 Environmental Justice

3.15.1 Existing Environment

The analysis for environmental justice used demographic information from census blocks or census block groups surrounding the proposed site. It also utilized the EPA's Environmental Justice Screening and Mapping Tool (Version 2017) via the EPA website. EJSCREEN uses 11 environmental indicators and demographic data to place the area in percentiles relative to its state, region, and the nation.

Green Oak Township’s median age is 44 (State of Michigan 39.5), and has a median household income of \$76,892 (State of Michigan \$50,803).

Green Oak Township 2016 estimates (ACS)

Total Population	18,214	100%
White	17,647	96.9%
Black or African American	150	0.8%
American Indian and Alaska Native	223	1.2%
Asian	318	1.7%
Native Hawaiian and Other Pacific Islander	12	0.1%
Some other race	212	1.2%

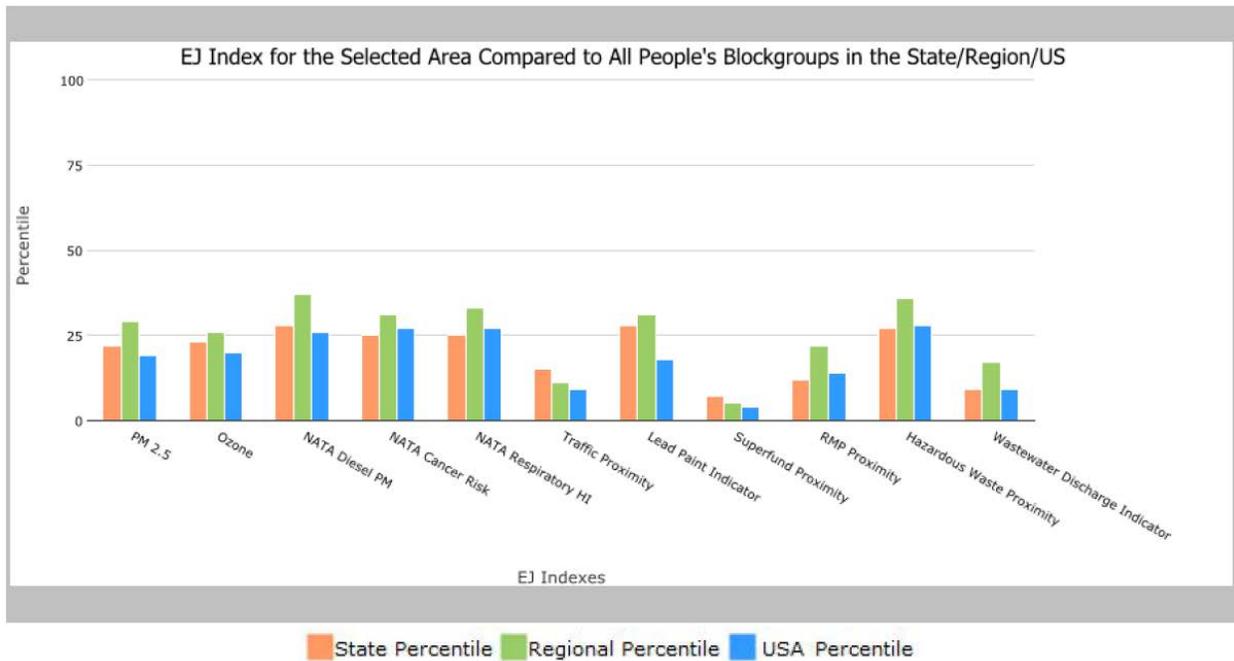
Ethnicity by Nearby Census Blocks

Census Block/Group	7449	4650	4610	7437
White	2447	5526	6514	2662
African American	13	67	34	13
Asian	14	41	71	14
AIAN	12	24	22	12
NHPI	0	0	0	0
Some Other Race	7	43	25	4
Two or More Races	33	120	110	31

Race by Nearby Census Blocks

Census Block/Group	7437-1	7446-1	7447-1	4650-1
Hispanic or Latino	19	23	13	52
Not Hispanic or Latino	1105	1616	927	2125

Figure 3.15.1: EJ Index Comparisons



Source: EJScreen - ejscreen.epa.gov/mapper

A three-mile buffer around the site was analyzed by EJSCREEN, and for all environmental indicators, it was within the 5th-37th percentile in the State and EPA Region 5. The national percentile ranged from 4th-28th. The highest environmental indicator was the EJ Index for NATA*

Diesel PM. NATA stands for National Air Toxics Assessment. The second highest environmental indicator was the EJ Index for Hazardous Waste Proximity.

Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss. The Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index uses U.S. census variables at tract level to help local officials identify communities that may need support in preparing for hazards, or recovering from disaster. Livingston County's Social Vulnerability Index is 0.058. The site's census tract is in the 8th percentile, and surrounding tracts range from 0-42nd percentile in vulnerability,

There is an oil supplier 0.5 miles from the site called Corrigan Oil that potentially generates diesel air pollution from truck traffic, and possible groundwater contamination. There is also a trucking company approximately 0.75 miles from the site that also potentially generates air pollution.

3.15.2 Environmental Consequences

3.15.2.1 Proposed Action

Because the demographics of site's vicinity do not show a large vulnerable population, it is not anticipated that any environmental or health impacts will affect a population disproportionately more than any other in the vicinity. However, the elderly population moving in as a result of the proposed action is itself vulnerable, so consideration should be given to this effect.

3.15.2.2 No Action

Under no action, there would be no changes to the site, thus no effect on the surrounding community. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.16 Cumulative Impacts

3.16.1 Existing Environment

According to the Council on Environmental Quality (CEQ), "Cumulative impact is the 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

3.16.2 Environmental Consequences

3.16.2.1 Proposed Action

The cumulative impacts to consider for the Proposed Action are the anticipated need for a municipal water supply.

As described in section 3.14, Utilities the Proposed Action may reduce the water pressure in the existing water system, which could result in insufficient pressures for desired fire flows. It is confirmed that connecting to a municipal water supply may be required, and the nearest water main is located north west of the site along M-36 to Spicer Road. Associated impacts from water main construction on 6,300 feet of M-36 to Spicer Road would be incurred. Some resulting effects from water main construction are: increases in noise along M-36, a decrease in aesthetics along the corridor as the main is being constructed, possible dewatering along M-36 to install the water main with potential impacts to the local water table, streams, and wetlands, and exposing soils while excavating a trench. Depending on the funding source for the water main, the NEPA process may have to be undertaken for the extension. All of these subsequent actions would not be required if the water pressure in the existing system can continue being used.

3.16.2.2 No Action

Under the No Action Alternative, no cumulative impacts are anticipated. However, the No Action Alternative would not meet the Purpose and Need of providing long term care to veterans in the Southeast Michigan Area.

3.17 Potential for Generating Substantial Controversy

The closing of the Maxey School for Boys in 2015 was controversial within the community, causing a loss of jobs in the area and the reassignment of 48 young men from the facility to other state facilities or private facilities. Putting the now-vacant site to a new use may be a welcome change for the community. The site's proximity to a prison may generate concern within the community and for the future senior facility residents and visitors of the residents.

4.0 PUBLIC INVOLVEMENT

Green Oak Township, Livingston County officials, and area residents were contacted about this EA draft, and were invited to a meeting on June 27, 2018 at 5:30 p.m. at Hamburg Township Library to solicit engagement. The meeting was publicized on the Livingston Daily website (<https://www.livingstondaily.com>) and Craigslist.

5.0 MITIGATION

<i>Resource Category</i>	<i>Proposed Action Impacts</i>	<i>Proposed Action Mitigation</i>	<i>No Action Alternative Impacts</i>
Aesthetics	Temporary impacts to site aesthetics during construction. Impacts to overall site aesthetics will be improved with the future design that is more neighborhood like and fitting to the natural landscape.	Construction fence around the perimeter can minimize impacts to aesthetics during construction.	No impacts would occur.
Land Use	No impacts to land use anticipated.	None required.	No impacts would occur.
Air Quality	Temporary impacts to air quality during construction from fugitive dust.	A soil and erosion control permit from the Livingston County Drain Commissioner would be applied for and adhered to during construction.	No impacts would occur.
Cultural Resources	No archaeological resources found during the Phase I survey.	If any artifacts, features, or human remains should be unearthed during construction then SHPO must be contacted.	No impacts would occur.
Geology & Soils	Further testing in the railroad corridor to confirm if soils are containment free is recommended. Some temporary impacts of erosion and soil movement may occur during construction.	Further testing will be performed to verify the extents of contaminated soils. Contaminated soils would be removed per Part 201 General Residential Cleanup. SESC and BMPs would be implemented during construction to prevent erosion and soil movement.	No impacts would occur.
Hydrology & Water Quality	Increased impervious surfaces may increase stormwater runoff after construction. Disturbed soils during construction are vulnerable to erosion and	Permanent stormwater treatment BMPs will be installed on the site. A construction NPDES permit would be required for	No impacts would occur.

	sedimentation.	construction and a Part 303 permit for wetlands for any direct discharges to the wetlands and pond. SESC and BMPs would be implemented during construction to prevent erosion and soil movement.	
Wildlife and Habitat	Potential habitat was for the federally protected Indiana Bat, the Northern Long-eared Bat, and Eastern Massassuga Rattlesnake and the state protected Blanchard Cricket Frogs.	Tree removals will be restricted between October 1 st and March 31 st . Wildlife friendly turf restoration materials will be implemented to avoid wildlife ensnarement. Impacts to wetlands and Cygnet Pond will be avoided.	No impacts would occur.
Noise	Proposed mechanical units are anticipated to raise nighttime ambient noise levels at adjacent residences to the west to 66 decibels, 10 over the Green Oak Township ordinance.	Sound mitigation will be incorporated into the final construction plans.	No impacts would occur.
Floodplains, Wetlands, and Coastal Zone Management	Some temporary impacts of erosion and soil movement may occur during construction. No impacts to the wetlands are anticipated.	SESC and BMPs would be implemented during construction to prevent erosion and soil movement. A NPDES permit will be required for construction stormwater due to proximity to a waterbody.	No impacts would occur.
Socioeconomics	No impacts to socioeconomics anticipated.	None required.	No impacts would occur.
Community Services	Minor impacts to local ambulance services and hospitals may occur.	Coordination with local community service provider is recommended.	No impacts would occur.
Solid & Hazardous Materials	Medical waste will continue to be properly disposed by a contractor. Some construction waste will be produced during the construction process.	All construction waste will be disposed of in a proper manor in accordance with state and federal law.	No impacts would occur.
Transportation & Parking	No impacts to transportation and parking anticipated.	None required.	No impacts would occur.

Utilities	Stormwater discharges may increase with the proposed action. The existing potable water system on site may not have the capacity to sustain recommended fire flows and may be required the connection of the site to a municipal water system approximately 6,300 feet away.	Stormwater controls for water quality and flow rates would be implemented. Stormwater discharges would be permitted under Part 303. Water main construction would be permitted per Michigan Safe Water Drinking Act. Associated impacts to other resources would be permitted per state and federal laws.	No impacts would occur.
Environmental Justice	No impacts to environmental justice are anticipated.	None required.	No impacts would occur.
Cumulative Impacts	Should the site require a water main connection to an existing municipal source, 6,300 feet of water main would need to be constructed in the M-36 and Spicer Road right of ways incurring additional potential impacts to wetlands, streams, and the water table.	Water main construction would be permitted per Michigan Safe Water Drinking Act. Associated impacts to other resources would be permitted per state and federal laws.	No impacts would occur.

6.0 CONCLUSIONS

The purpose of the assessment process detailed in this draft EA is to determine the extent to which a Proposed Action may impact the human environment. This draft EA finds that there are no significant adverse impacts to the human environment on the condition that the recommend mitigation and regulatory processes for compliance are implemented. A Finding of No Significant Impact (FONSI) is supported by this EA and an Environmental Impact Statement (EIS) is not needed.)

7.0 LIST OF PREPARERS

<i>Name</i>	<i>Company</i>	<i>Title</i>	<i>Responsibilities</i>
Ariana Jeske, P.E., PTOE	Prein&Newhof	Senior Engineer	Project Manager Transportation & Parking Cumulative Impacts
Ariana Jeske, P.E., PTOE	Prein&Newhof	Senior Engineer	Project Manager Purpose & Need Transportation & Parking Cumulative Impacts
Kimberly Jongsma, MUP	Prein&Newhof	Planner	Public Involvement Socioeconomics Environmental Justice
Mark DeHaan, EIT	Prein&Newhof	Engineer	Geology & Soils Floodplains, Wetlands, and Coastal Zone Management Solid & Hazardous Materials
Jim Herman, EIT	Prein&Newhof	Engineer	Aesthetics Land Use Hydrology & Water Quality Community Services Utilities
Misty Jackson, Phd, RPA	Arbre Croche Cultural Resources	Principal Investigator	Cultural Resources
Christopher Occhipinti	NTH Consultants, Ltd.	Project Professional	Air Quality
Woody Held	King & MacGregor Environmental, Inc.	Biologist	Wildlife and Habitat Wetlands
Justin Meyer, LEED AP	ABD Engineering & Design	Senior Acoustical Consultant	Noise

Quincey Smail	ABD Design & Engineering	Acoustical Consultant	Noise
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Personal Communication:

- Dan Willis – Wastewater Treatment Plant Superintendent at Northfield Township Wastewater Treatment Plant, 5/25/2018
 - Phone conversation about Maxey site sewage discharge to this WWTP
- Pat Hohl – Township supervisor for Hamburg Township, 5/29/2018
 - Phone conversation about available taps for purchase for Livingston Community Water Authority 16” main on Spicer Road
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- Jeff Pierce – DEQ Lansing District Office – Water Resources
 - Email to Brian Merk on 12/18/2018 about Maxey Site having a wetland at Cygnet Pond
- Todd Lavacs – Facilities Director for Woodland Correctional Facility, 4/26/2018
 - Talked on phone about water pumps and water tower at the Maxey site
- John Smith – Plant Supervisor Woodland Correctional Facility, 4/26/2018

- Talked about water pumps and water tower at the Maxey site

9.0 LIST OF ACRONYMS AND ABBREVIATIONS

ACS	American Community Survey
ADT	Average daily traffic
APE	Area of Potential Effect
BMPs	Best management practices
CAA	Clean Air Act
CEA	County Enforcing Agency
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CLC	Community Living Center
CO	Carbon monoxide
dBA	A-weighted decibels
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
FONSI	Finding of No Significant Impact
HVAC	Heating, ventilation, and air conditioning
ITE	Institute of Transportation Engineers
JPA	Joint Permit Application
LAeq	the sound level in decibels equivalent to the total A-weighted sound energy measured over a stated period of time.
MDEQ	Michigan Department of Environmental Quality
MDOT	Michigan Department of Transportation
MMBtu/hr	Million British Thermal Units per hour
MVAA	Michigan Veterans Affairs Agency
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHR	National Historical Register
NO ₂	Nitrogen dioxide
NREPA	Natural Resources and Environmental Protection Act
NRHP	National Register of Historic Places
O ₃	Ozone
PA	Public Act
Pb	Lead
PM	Particulate matter
SESC	Soil erosion and sedimentation control
SIPs	State Implementation Plans
SHPO	State Historic Preservation Office
SO ₂	Sulfur dioxide

SWPPP	Stormwater pollution prevention plan
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
VA	Department of Veteran Affairs
VOCs	Volatile organic compounds
WWTP	Waste water treatment plant

APPENDIX A: NATIVE AMERICAN TRIBES CORRESPONDENCE



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Michael LaRonge, THPO
Forest County Potawatomi Community of Wisconsin
PO Box 340
Crandon, WI 54520

Dear Michael LaRonge:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Earl Meshigaud, THPO
Hannahville Indian Community, Michigan
N14911 Hannahville B1 Road
Wilson, MI 49896

Dear Earl Meshigaud:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

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Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Melinda Young, THPO
Lac du Flambeau Band of Lake Superior Chippewa Indians of the Lac du Flambeau
Reservation of Wisconsin
PO Box 67 Lac du Flambeau
Flambeau, WI 54538

Dear Melinda Young:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

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Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Jay Sam, THPO
Little River Band of Ottawa Indians, Michigan
2608 Government Center Drive
Manistee, MI 49660

Dear Jay Sam:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

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Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Wesley Andrews, THPO
Little Traverse Bay Bands of Odawa Indians, Michigan
7500 Odawa Circle Harbor
Springs, MI 49740

Dear Wesley Andrews:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

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Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug", is located below the "Sincerely," text.

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

David Grignon, THPO
Menominee Indian Tribe of Wisconsin
PO Box 910
Keshena, WI 54135

Dear David Grignon:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug", is located below the "Sincerely," text.

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Diane Hunter, THPO
Miami Tribe of Oklahoma
PO Box 1326
Miami, OK 74355

Dear Diane Hunter:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Rhonda Hayworth, THPO
Ottawa Tribe of Oklahoma
13 South 69A
Miami, OK 74355

Dear Diane Hunter:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Marcus Winchester, THPO
Pokagon Band of Potawatomi Indians, Michigan and Indiana
PO Box 180
Dowagiac, MI 49047

Dear Marcus Winchester:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

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Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Kade Ferris, THPO
Red Lake Band of Chippewa Indians, Minnesota
PO Box 274
Red Lake, MN 56671

Dear Kade Ferris:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug", is located below the "Sincerely," text.

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

Colleen Medicine, Cultural Repatriation Specialist
Sault Ste. Marie Tribe of Chippewa Indians, Michigan
523 Ashmun Street
Sault Ste. Marie, MI 49783

Dear Colleen Medicine:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

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If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office



Department of Veterans Affairs
Washington DC 20420

04/12/2018

William Tarrant, THPO
Seneca-Cayuga Nation
PO Box 45322
Grove, OK 74345

Dear William Tarrant:

The Michigan Veteran Affairs Agency, with a grant from the U.S. Department of Veteran Affairs (VA), is proposing to build a 120-bed veteran nursing home in Grand Rapids, Michigan and another 120-bed veteran nursing home in Southeast, Michigan. The requirements of the VA State Home Construction Grant Program are available in 38 CFR Part 59. The VA grant will support constructions of two new facilities on state-owned land designed in accordance with VA Community Living Center guidelines available at www.cfm.va.gov/dgCLC

Due to the VA grant, plans for development of a veteran nursing home is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800), the National Environmental Policy Act, the Native American Religious Freedom Act, and other laws requiring federal agencies to consider and consult about the effects of proposed projects. If you so desire, we would like to initiate consultation with your tribal government to identify any environmental or cultural concerns with the proposed project.

Given the connection that the Michigan Veteran Affairs Agency has with its stakeholders, VA is asking Michigan Veteran Affairs Agency to coordinate consultation. However, recognizing the special relationship between the U.S. and tribal governments, VA is ready to consult directly with you, if that is your preference. Your response to this letter, expressing your interest in consulting on this undertaking and confirming your tribe's point of contact or advising us that you do not wish to consult, is greatly appreciated.

If you have additional questions, Anne Zerbe (ZerbeA1@michigan.gov) is the state point of contact for the STATE construction project. Emmanuel Onyeobia (emmanuel.onyeobia@va.gov) is the point of contact for the VA grant program. VA grant program documents are available at <http://www.nasvh.org/Links/vaConstruction> .

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Gaug".

Anna Gaug, Director
VA State Home Construction Grant Program
810 Vermont Ave, NW
Washington, DC 20420

cc: Anne Zerbe, State of Michigan
Doug Pulak, VA Historic Preservation Office

APPENDIX B: AGENCY CORRESPONDENCE



Natural
Resources
Conservation
Service

May 14, 2018

received G

Michigan State Office

Mark DeHaan, EIT
Prein & Newhof
3355 Evergreen Drive NE
Grand Rapids, Michigan 49525

MAY 18 2018

3001 Coolidge Road
Suite 250
East Lansing, MI
48823-6321

Prein&Newhof

Telephone:
(517) 324-5270
Fax:
(855) 701-4363

RE: Department of Veterans Affairs Site, Whitmore Lake, Michigan

Dear Mr. DeHaan:

www.mi.nrcs.usda.gov

The Natural Resources Conservation Service (NRCS) under Part 523 of the Farmland Protection Policy Act has reviewed the proposed Department of Veterans Affairs Site, located at 9036 W Michigan 36, Whitmore Lake, Michigan, 48189. This review was conducted with respect to the effect(s) that the proposal may have on prime and/or unique farmland. Subpart B of Part 523 of the Farmland Protection Policy Act states that 'Lands identified as "urbanized area" (UA) on the Census Bureau maps' are not covered by the act. Since the area of the proposed project extent is UA on the 2010 Census Bureau Reference Map for South Lyon - Howell, MI, we have concluded that this proposal will have no negative impact on prime and/or unique farmland.

Should the scope of the project change to where expansion will occur, please resubmit the proposal for our review.

Sincerely,


GARRY LEE
State Conservationist

cc:

Solomon Andrews, District Conservationist, NRCS, Ann Arbor, MI
Albert Jones, Area Conservationist, NRCS, Flint, MI

June 14, 2018
2180251

U.S. Fish and Wildlife Service
Michigan Field Office (MIFO)
2651 Coolidge Road East Lansing, MI 48823
(517) 351-2555
e:mail: EastLansing@fws.gov

Sent via Email

RE: Proposed Michigan Veterans Affairs Agency Site, Green Oak Township, Livingston County, Michigan

To Whom it May Concern:

We are requesting concurrence from the U.S. Fish and Wildlife Service that the proposed Community Living Center at the former W.J. Maxey Training School for Boys/Woodland Center Correctional facility is not likely to adversely affect the:

- Indiana Bat (*Myotis sodalist*);
- Northern Long-eared Bat (*Myotis septentrionalis*);
- Eastern Massassauga (*Sistrurus catenatus*);
- Poweshiek Skipperling (*Oarisma poweshiek*);
- Snuffbox (*Epioblasma triquetra*); and the
- Eastern Prairie Fringed Orchid (*Platanthera eucophaea*).

The proposed project is located in Green Oak Township, Livingston County, Michigan. The project is funded through a State Home Construction Grant from the Department of Veterans Affairs (VA) through the Michigan Veterans Affairs Agency (MVAA).

The proposed project involves the construction of a 128 bed Community Living Center. The center will provide nursing, domiciliary, and adult daycare services for veterans in Southeast Michigan. A Threatened and Endangered Species Evaluation was performed by King and MacGregor, Environmental, Inc. in 2018 (attached). The evaluation found no suitable habitat for Poweshiek Skipperling, Snuffbox Mussel, and the Eastern Prairie Fringed Orchid. Suitable habitat was identified for the Indiana Bat and Northern Long-eared Bat in the wetland southwest of the proposed site and in the dead trees located on the shore of Cygnet Pond. The Northern Long-eared Bat can also find suitable habitat in the mature trees east of the site. Suitable habitat was also identified for the Eastern Massassauga Rattlesnake (EMR) in the wetlands east and southwest of the site. No federally protected species were observed during the site evaluation.

The project will not impact the wetlands that coincide with suitable habitat for the Indian Bat, the Northern Long-eared bat, and the EMR. BMPs from the USFWS document, Environmental Screening for EMR in Michigan (March 14, 2017) will be adhered to including the use of wildlife

friendly erosion control and site restoration materials, the EMR factsheet will be handed out to project staff, and any sightings will be reported to the USFWS. Additionally, trees will only be removed during the November 1st to March 31st window.

We carefully reviewed (May 31, 2018) your agency's Section 7 Consultation website for a list of species and critical habitat that "may be present" within the project area. There are six species that may be present:

- Indiana Bat (*Myotis sodalist*);
- Northern Long-eared Bat (*Myotis septentrionalis*);
- Eastern Massassauga (*Sistrurus catenatus*);
- Poweshiek Skipperling (*Oarisma poweshiek*);
- Snuffbox (*Epioblasma triquetra*); and the
- Eastern Prairie Fringed Orchid (*Platanthera eucophaea*).

The action is Not Likely to Adversely Affect the I Poweshiek Skipperling, Snuffbox Mussel, and the Eastern Prairie Fringed Orchid as suitable habitat for these species was not found at the project site. The project site is within EMR Range, but does not have Tier 1 or Tier 2 habitat. The proposed action is Not Likely to Adversely Affect the EMR as USFWS BMPs will be implemented for the duration of the project. The proposed action is Not Likely to Adversely Affect the Indiana Bat and the Northern Long-eared Bat as trees will be prohibited from being cut down from November 1st to March 31st and no impacts are anticipated to the wetlands and shore of Cygnet Pond.

For these reasons, we conclude that the Community Living Center at the Maxey/Woodland Center Correctional Facility is not likely to adversely affect the

- Indiana Bat (*Myotis sodalist*);
- Northern Long-eared Bat (*Myotis septentrionalis*);
- Eastern Massassauga (*Sistrurus catenatus*);
- Poweshiek Skipperling (*Oarisma poweshiek*);
- Snuffbox (*Epioblasma triquetra*); and the
- Eastern Prairie Fringed Orchid (*Platanthera eucophaea*).

We request your concurrence with our determination(s). Please contact me with any questions or concerns. You may reach me at 616.364.8491 or at ajeske@preinnewhof.com.

Sincerely,

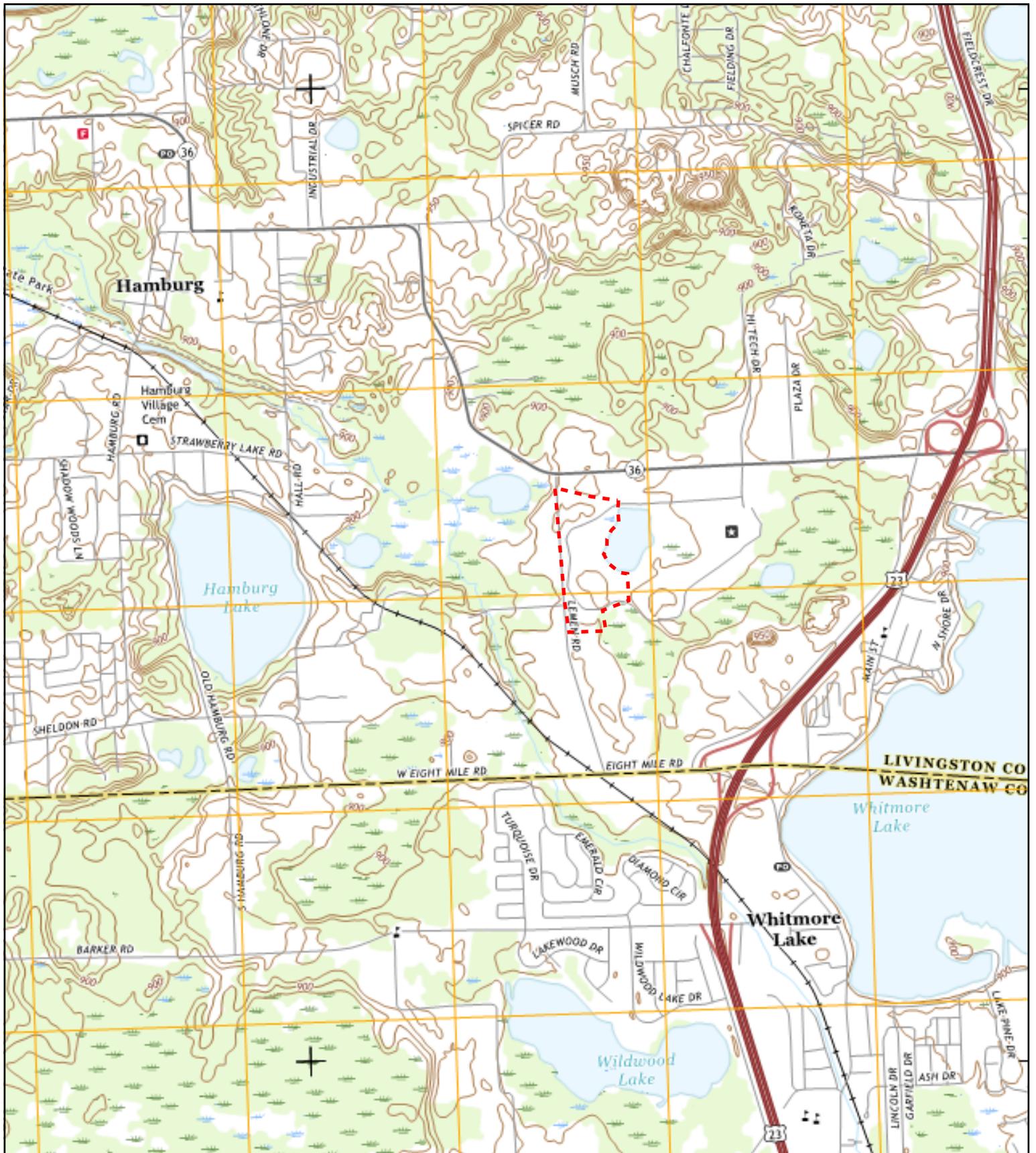
Prein&Newhof

Ariana Jeske

AJJ/ajj

Enclosure(s): VA Maxey Site Threatened and Endangered Species Evaluations, Section 7 Consultation and MNFI Review

cc:



1 inch = 2,000 feet

Legend

 Proposed Site

Green Oak Township
 Livingston County, Michigan
Proposed MVA Site
 June, 2018
Prein & Newhof
 2180250



King & MacGregor
Environmental,
Inc.

June 14, 2018

Sent Via Email

Ms. Ariana Jeske, P.E.
Prein & Newhof
3355 Evergreen Drive, NE
Grand Rapids, MI 49525

Re: VA Maxey Site
Threatened/Endangered Species Evaluations
Section 7 Consultation & MNFI Review

Dear Ms. Jeske:

Pursuant to your request, a protected species evaluation was conducted for the VA Maxey Site. The intent of this report is to provide documentation of any potential rare species and/or their habitat within the project area.

The subject Area of Investigation (AOI) totals approximately 77 acres in size and includes a portion of parcel 4716-31-200-001 located in the northeast quarter of Section 31, Hamburg Township (T1N, R6E), Livingston County, Michigan (see enclosed drawing). The AOI is a former correctional facility from which the structures have been removed. What remains is a park-like setting within which is the remaining road network, Cygnet Pond and an emergent wetland area.

A review of the United States Fish and Wildlife Service (USFWS) web database indicated six federally protected species associated with Livingston County, Michigan (see enclosed list). These six species are: Indiana bat (*Myotis sodalis*; endangered), northern long-eared bat (*Myotis septentrionalis*; threatened), eastern massasauga (*Sistrurus catenatus*; threatened), Poweshiek skipperling (*Oarisma poweshiek*; endangered), snuffbox (*Epioblasma triquetra*; endangered), and eastern prairie fringed orchid (*Platanthera eucophaea*, threatened).

A brief discussion of each of the federally protected species is provided below. Photographs of the AOI are enclosed.

Indiana bats prefer to roost and brood in dead and dying trees with exfoliating/peeling bark, or crevices in dead snags or dying trees located primarily in wetlands, floodplain/riparian forests, bur oak forests, and oak openings. Hibernacula are restricted to caves and mines. Maternity and roost trees are usually found in the open or exposed to solar radiation. Clearance from small limbs and vines is also a factor for roost site ingress and egress. Woodland areas and riparian corridors are also located in close (less than one mile) proximity to the AOI. Potential roost sites within the AOI are found in snags located in the emergent wetland in the southwest part of the AOI as well as in several dead trees along the edge of the Cygnet Pond / wetland complex. No caves or mines were observed within the AOI. A search of the Michigan Natural Features Inventory (MNFI) Web Database for this section did not include a record for this species. Prohibiting clearing during the period from April 1 to September 30 will allow proposed construction to proceed without adversely affecting the Indiana bat. If this prohibition is not possible, a bat survey using USFWS guidelines should be performed and approved by the USFWS prior to any tree clearing.

2520 Woodmeadow SE
Grand Rapids, MI 49546
Phone: 616/957-1231
Fax: 616/957-2198

43050 Ford Road, Suite 130
Canton, MI 48187
Phone: 734/354-0594
Fax: 734/354-0593

162 Kuivila Road
Crystal Falls, MI 49920
Phone: 906/367-0171

email: kme@king-macgregor.com

The northern long-eared bat (NLEB) is less particular than the Indiana bat in its preferred summer habitat, selecting trees, both dead and alive, primarily with regard to the tree's ability to provide bark cover, cavities and crevices. Males and non-breeding females are also known to summer roost in caves and mines. The NLEB typically feed in woodland areas. Like the Indiana bat, the NLEB over-wintering habitat is restricted to hibernacula located in caves and mines. NLEB hibernacula are not known from Livingston County but NLEB roosts are known from Putnam Township (T1N, R4E), Livingston County (NLEB map enclosed). The potential Indiana bat roost sites described above are also potential roosts for the NLEB as well as mature trees in the east part of the AOI. A search of the MNFI Web Database for this section did not include a record for this species. Prohibiting tree clearing during the period from April 1 to September 30 will allow proposed construction to proceed without adversely affecting the Northern long-eared bat. If this prohibition is not possible, a bat survey using USFWS guidelines should be performed and approved by the USFWS prior to any tree clearing.

The eastern massasauga rattlesnake (EMR) is typically associated with open wetlands, such as marshes, prairie fens and wet meadows near streams, rivers and lakes in southern Michigan, and require a water table near the surface for hibernation. The emergent wetlands in the southwest part of the AOI as well as the emergent wetland around Cygnet Pond provide potential EMR habitat. Existing roads and expanses of mowed lawn may act as a deterrent to the movement of this reclusive species within the AOI. A search of the MNFI Web Database for this section did not include a record for this species. The Information Planning and Consultation website of the USFWS was consulted and the proposed project area is "within EMR range" (i.e., not Tier 1 or Tier 2 habitat).

In accordance with the USFWS Environmental Screening for EMR in Michigan (March 14, 2017), to help ensure your project is unlikely to affect EMR the following guidelines should be implemented:

- 1) Project applies the General Best Management Practices:
 - a. Use wildlife-safe materials for erosion control and site restoration (See Erosion Control Resources side panel, page 4). By January 1, 2019, eliminate the use of erosion control products containing plastic mesh netting or other similar material that could ensnare EMR (within the known range but outside of Tier 1 or Tier 2 habitat).
 - b. To increase human safety and awareness of EMR, those implementing the project should first watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/-PFnXe_e02w), or review the EMR factsheet (available at <https://www.fws.gov/midwest/endangered/reptiles/eama/pdf/EMRfactsheetSept2016.pdf> or by calling 517-351-2555).
 - c. Require reporting of any EMR observations, or observation of any other listed threatened or endangered species, during project implementation to the USFWS within 24 hours.
- 2) Project will not have significant impacts to dispersal, connectivity, or hydrology of existing EMR potential habitat, i.e., filling less than 1 acre of wetland habitat or



converting less than 20 acres of uplands of potential EMR habitat (uplands associated with high quality wetland habitat) to other land uses.

Within the Known Range, but Outside Tier 1 or 2 Coordination Recommendation:

Document the steps above for your records and no pre-project coordination with the USFWS needed. If you cannot implement the General Best Management Practices contact the USFWS for assistance in evaluating potential impacts.

The Poweshiek skipperling in Michigan is found exclusively in prairie fens (alkaline peatlands) dominated by grasses and sedges. Prairie fens are a relatively rare natural community type which occur where calcareous groundwater fed springs discharge at the soil surface. Prairie fen habitat was not observed within the AOI. A search of the MNFI Web Database for this section did not include a record for this species. Given the lack of suitable habitat, it is our opinion that the proposed construction and/or tree removal activities within the AOI will have no effect on the Poweshiek skipperling.

The snuffbox mussel prefers small to medium-sized creeks and some large rivers, in areas of swift current with sand, gravel and cobble substrate. Suitable habitat for the snuffbox mussel was not observed within the AOI. A search of the MNFI Web Database for this section did not include a record for this species. Given the lack of suitable habitat, it is our opinion that the proposed construction and/or tree removal activities within the AOI will have no effect on the snuffbox mussel.

The eastern prairie fringed orchid in southern Michigan is most frequently associated with open bogs characterized by the presence of *Sphagnum* moss or openings within tamarack bogs. Suitable habitat for the eastern prairie fringed orchid was not observed within the AOI. A search of the MNFI Web Database for this section did not include a record for this species. Given the lack of suitable habitat, it is our opinion that the proposed construction and/or tree removal activities within the AOI will have no effect on the eastern prairie fringed orchid.

A search of the MNFI Web Database for this section indicated five state protected species associated (see enclosure). These five species are: Blanchard's cricket frog (*Acris blanchardi*, threatened), Canadian milk vetch (*Astragalus canadensis*, threatened), mat muhly (*Muhlenbergia richardsonis*, endangered), orange or yellow fringed orchid (*Platanthera ciliaris*, endangered) and Virginia flax (*Linum virginicum*, threatened).

Blanchard's cricket frogs inhabit open edges of permanent ponds, lakes, bogs, seeps and slow-moving streams, preferring mud flats and mats of emergent aquatic vegetation. This species overwinters in cracks, depressions, or vegetation along the shoreline. Cygnet Pond contains potential habitat for this species. This species is not likely to be adversely affected if construction activities avoid the open water and lacustrine wetlands along the shoreline.

Canadian milk vetch occurs in a variety of habitats which include oak barrens, open areas of rich moist soil over limestone, moist opens, wet ground, sandy lake shores, lakeplain oak opens and wet-mesic prairies and mesic sand prairie. Within the AOI, habitat for this species is limited to Cygnet Pond shoreline which is predominantly loamy and mucky. Given the lack of suitable habitat, it is our opinion that the proposed construction within the AOI will have no effect on the Canadian milk vetch.



The mat muhly in Southern Michigan is typically found in prairie fens (alkaline peatlands) dominated. Prairie fens are a relatively rare natural community type which occur where calcareous groundwater fed springs discharge at the soil surface. Prairie fen habitat was not observed within the AOI.

In Michigan, the orange or yellow fringed orchid is most frequently associated with open bogs characterized by the presence of *Sphagnum* moss or openings within tamarack bogs and also occurring in damp sandy meadows. Suitable habitat for the orange or yellow fringed orchid was not observed within the AOI.

Virginia flax is a species found in dry and mesic woodlands, oak openings and oak barrens including lakeside and riparian forests. Suitable habitat for the orange or yellow fringed orchid was not observed within the AOI.

No Federal or State protected species were observed during the site evaluation

Please be advised the information provided in this report is a professional opinion. The ultimate decision of whether potential habitat for these species is present is with the USFWS and Michigan Department of Natural Resources. In addition, the physical characteristics of the site can change with time, depending on the weather, activities on adjacent parcels, or other events. Any of these factors can change the nature/extent of potential habitat on the site.

Thank you for the opportunity to provide this threatened and endangered species evaluation. If you have any questions, please contact me at your convenience.

Sincerely,



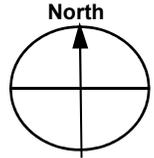
King & MacGregor Environmental, Inc.
Woody L. Held

Enclosures





 **Area of Investigation**



Area of Investigation
Maxey Site
Hamburg Township, Livingston County, Michigan
 June 1, 2018



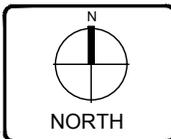
Please be advised the information provided by KME, Inc. regarding wetland boundaries is an estimate of the wetland boundary. The ultimate decision on wetland boundary locations and jurisdictions thereof rests with the MDEQ and, in some cases, the Federal government. As a result, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary, depending on various factors including, but not limited to, experience of the agency representative making the determination and the season of the year. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage and management activities on adjacent parcels or other events. Any of these factors can change the nature/extent of wetlands on site. This wetland determination, as defined by the boundary flags depicted on this drawing, is valid for one growing season from the date flagged. There is no assurance given herein or otherwise implied that the KME, Inc. wetland boundary will be accepted by any regulatory agency. Reliance on KME, Inc.'s opinion is at the client's risk. Further, it has been our experience that site conditions are likely to change over the course of one year. Therefore, KME, Inc. strongly recommends that the client have no reliance on our opinion after one growing season. Be aware the manufacturer of the G.P.S. (Global Positioning System) used by KME, Inc. has advised that the equipment has, at best, sub-meter accuracy. The location of the actual wetland boundaries may therefore vary somewhat if a professional survey of the wetland flags is conducted.

SHEET NUMBER 1	Wetland Boundary Map	DATE	06/07/18	DATE DRAWN	
		SCALE	AS SHOWN		
PROJECT NUMBER 18125	SHEET NAME Wetland Boundary Map	DATE		DATE	
		SCALE		SCALE	
		REVISION		REVISION	
		TITLE		TITLE	
		DATE		DATE	
		SCALE		SCALE	
		REVISION		REVISION	
		TITLE		TITLE	

Wetland Delineation For:

Maxey Site

Green Oak Township, Livingston County, Michigan



King & MacGregor Environmental Inc.
 2520 Woodmeadow SE
 Grand Rapids, MI 49506
 Phone: (616) 657-1231
 43050 Ford Road, Suite 130
 Canton, MI 48187
 Phone: (734) 354-0564



Emergent wetland with snags at south end of site.



Parking lot at south end of property.



Looking north, Lemen Road to the west.



Looking northeast to east.

**Site Photographs - Southwest
Maxey Site
Hamburg Township, Livingston County, Michigan
June 1, 2018**



West shoreline, looking north.



West shoreline looking east.



South shoreline, looking northeast.



North shoreline looking west.



Stormwater outfall in southwest Cygnet Pond.



East side of Cypnet Pond looking west.

Site Photographs - Cygnet Pond
Maxey Site
Hamburg Township, Livingston County, Michigan
June 1, 2018



Looking west to southeast in southeast part of site.



Looking west to northeast in northeast part of site.

**Site Photographs - Southeast and Northwest
Maxey Site
Hamburg Township, Livingston County, Michigan
June 1, 2018**



Search



Midwest Endangered Species Home

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Featured Species >

Species Information >

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Species Lists >

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Regional Office Contacts

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The Midwest Region includes Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. [Find a location near you](#)

Endangered Species Program

Conserving and restoring threatened and endangered species and their ecosystems



Michigan

County Distribution of Federally-Listed Endangered and Threatened Species

[PDF Version of this page](#)

For more information about threatened and endangered species in Michigan, contact the [U.S. Fish & Wildlife Service office at 2651 Coolidge Road, East Lansing, Michigan 48823 \(517/351-6274\)](#)

Bald Eagle

Bald eagles are no longer protected under the federal Endangered Species Act and Section 7 consultation with the U.S. Fish and Wildlife Service is no longer necessary. However, the bald eagle remains protected under the Bald and Golden Eagle Protection Act.

[Information about Bald Eagles](#)

[Information about Eagle Permits and the Bald and Golden Eagle Protection Act](#)

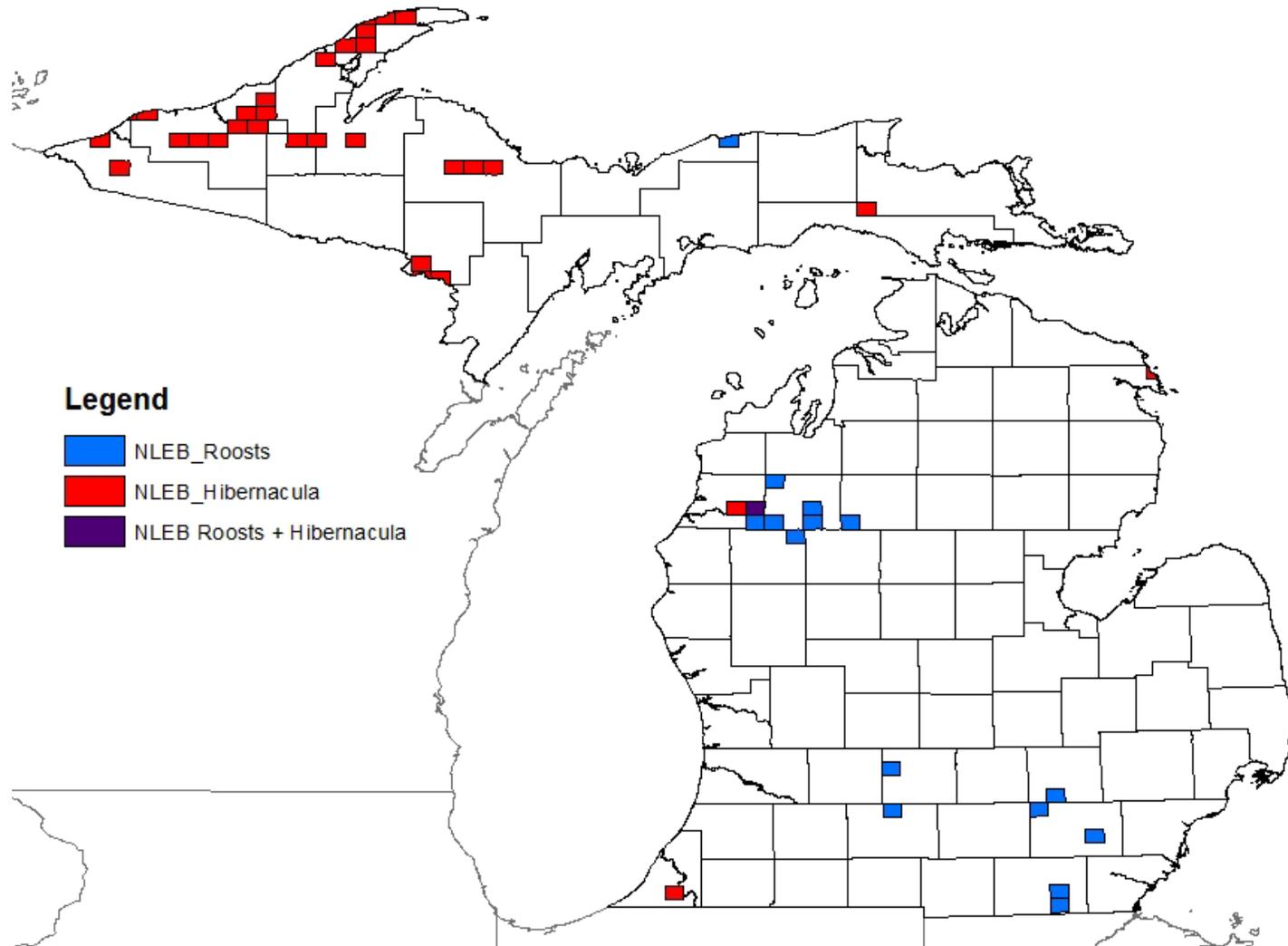
Gray Wolf

Due to a Federal court decision, [gray wolves](#) in the western Great Lakes area (including Michigan, Minnesota, and Wisconsin) were relisted under the Endangered Species Act, effective December 19, 2014.

Revised December 2017

County	Species	Status	Habitat
Livingston	Indiana bat (<i>Myotis sodalis</i>)	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.
	Northern long-eared bat <i>Myotis septentrionalis</i>	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.
	Eastern massasauga (<i>Sistrurus catenatus</i>)	Threatened	
	Poweshiek skipperling (<i>Oarisma poweshiek</i>)	Endangered Critical Habitat	Wet prairie and fens
	Snuffbox <i>Epioblasma triquetra</i>	Endangered	Small to medium-sized creeks and some larger rivers, in areas with a swift current
	Eastern prairie fringed orchid <i>Platanthera leucophaea</i>	Threatened	Mesic to wet prairies and meadows

Map of Known NLEB Occurrence, Roosts, and Hibernacula in MI*



***Map last updated 7/22/2016.**

Map will be updated as additional information becomes available.



Michigan Natural Features Inventory

Web Database Search



Search Results for Town 01N, Range 06E, Section 31
 Displaying Record 1 to 9 of 9 Records Found

Query Result
 Datab

[New Search](#) [Refine Search](#) [Previous 25 Records](#)

A n n o t a t i o n	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town Range		Section
	Blanchard's cricket frog	Acris blanchardi	T		1917-11-08	Animal	M	Whitmore Lake		01N 06E		31,32,33
	Canadian milk vetch	Astragalus canadensis	T		1900-pre	Plant	M	Whitmore Lake	Dawson, J. No date. MICH	01N 06E		31,32,33
	Mat muhly	Muhlenbergia richardsonis	T		1928-08-29	Plant	G	Hamburg	Farwell, O.A. 1928. #8271 MSC,BLH.	01N 06E		19,30,31
	Orange- or yellow-fringed orchid	Platanthera ciliaris	E		1912-08-05	Plant	GX	"Government Swamp"	QUICK, B.E. 1912. MICH	01N 06E	7,8,9,10,11,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30	
	Orange- or yellow-fringed orchid	Platanthera ciliaris	E		1931-08-07	Plant	M	Mud Lake Bog	ANON. 1931. AQC	01N 06E		31
	Pale avens	Geum virginianum	SC		1983-07-11	Plant	GX	Webster Township		01N 06E		31
	Ram's head lady's-slipper	Cypripedium arietinum	SC		1892-05-30	Plant	G	Whitmore Lake West	Lewis, W. 1892. MICH	01N 06E		20,21,28,29,30,31,32,33
	Spike rush	Eleocharis radicans	X		1930-07-29	Plant	M	Mud Lake Bog	WEHMEYER, L., AND A.H. SMITH. 1930. MICH	01N 06E		31
	Virginia flax	Linum virginianum	T		1922-08-11	Plant	M	Dead Lake	GUSTAFSON, F.G. 1922. MICH	01N 06E		31,32

[New Search](#) [Refine Search](#) [Previous 25 Records](#)



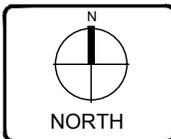
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SHEET NUMBER 1	Wetland Boundary Map	DATE	06/07/18	CREATED BY	Chris Williams
		DATE	06/07/18	SCALE	AS SHOWN
PROJECT NUMBER 18125	SHEET NAME Wetland Boundary Map	DATE		SCALE	
		DATE		SCALE	
		DATE		SCALE	
		DATE		SCALE	

Wetland Delineation For:

Maxey Site

Green Oak Township, Livingston County, Michigan



King & MacGregor Environmental Inc.

2520 Woodmeadow SE
Grand Rapids, MI 49506
Phone: (616) 657-1231
43050 Ford Road, Suite 130
Canton, MI 48187
Phone: (734) 354-0564

- SHPO Section 106 Application to be Updated -

APPENDIX C: ADDITIONAL MAPS



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

May 2, 2018

Wetlands

- | | | |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth
		Regulatory Floodway <i>Zone AE, AO, AH, VE, AR</i>

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/2/2018 at 12:25:58 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

42°26'34.66"N

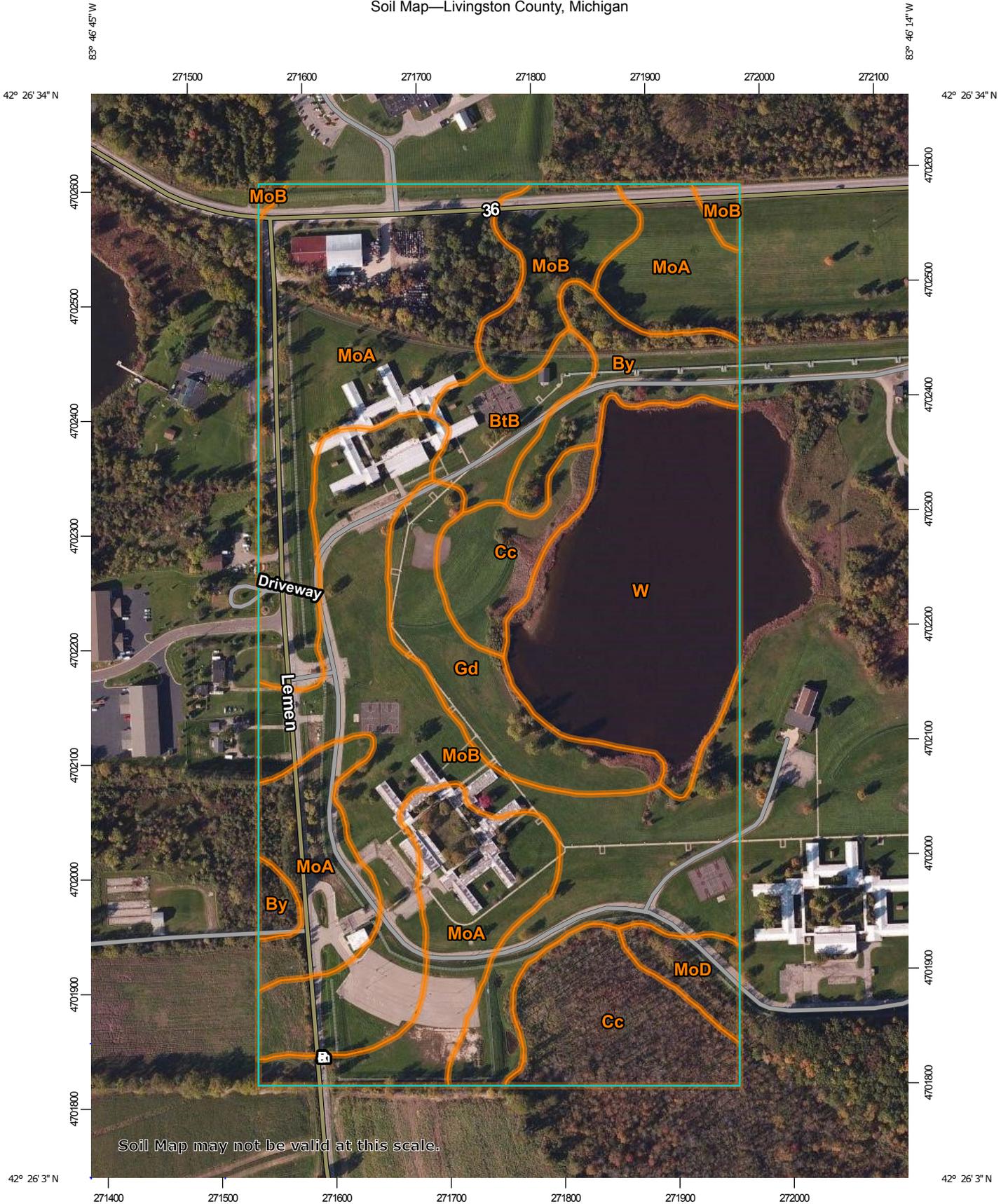
83°46'49.42"W



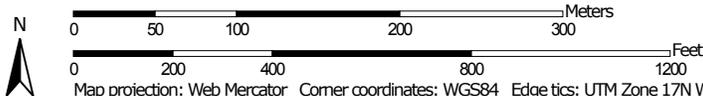
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Soil Map—Livingston County, Michigan



Map Scale: 1:4,610 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 17N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/2/2018
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Livingston County, Michigan

Survey Area Data: Version 15, Oct 6, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 18, 2011—Mar 21, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	Farmland
BtB	Boyer-Oshtemo loamy sands, 2 to 6 percent slopes	2.6	3.2%	Local importance
By	Brookston loam, 0 to 2 percent slopes	3.9	4.8%	Prime farmland if drained
Cc	Carlisle muck, 0 to 2 percent slopes	7.7	9.3%	Local importance
Gd	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	4.7	5.7%	Prime farmland if drained
MoA	Miami loam, 0 to 2 percent slopes	25.9	31.6%	Prime farmland
MoB	Miami loam, 2 to 6 percent slopes	23.6	28.7%	Prime farmland
MoD	Miami loam, 12 to 18 percent slopes	1.4	1.7%	Local importance
W	Water	12.3	15.0%	
Totals for Area of Interest		82.1	100.0%	

APPENDIX D: LIST OF ENVIRONMENTAL PERMITS / MODIFICATIONS REQUIRED

<i>Permit</i>	<i>Description</i>	<i>Source</i>
Notice of Coverage (NOC) MDEQ	The Notice of Coverage (NOC) are permits for sites over five acres, with a point source discharge to the water of the state. Along with the NOC application, the applicant/permittee must submit a copy of the SESC permit, approved SESC plan, site location map, and the appropriate fee to the DEQ.	DEQ Website: https://www.michigan.gov/deq/0,4561,7-135-3311_4113-365525--,00.html
Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994	Part 303 covers wetlands and protects them when, among other activities, draining surface water from a wetland, and also construct, operate, or maintain any use or development in a wetland.	State of Michigan Website https://www.michigan.gov/statelicensesearch/0,4671,7-180-24786-244642--,00.html
Livingston County Drain Commissioner SESC permit	All construction sites must have a SESC permit before construction starts in Livingston County.	Livingston County Website https://www.livgov.com/drain/Pages/erosionpermits.aspx
MDEQ Permit for Water Supply Systems	MDEQ permit for water supply system expansions or additions.	MDEQ Website https://www.michigan.gov/deq/0,4561,7-135-3313_3675_3691-288067--,00.html

LIST OF FIGURES

Figure 1.1 – Project Location Map

Figure 1.2 – Proposed Site Plan

Figure 3.8.1 – Google Earth View of Grand Rapids Site Measurement Locations

Figure 3.8.2 – Analysis of Mechanical Noise to Residences

Figure 3.15.1 – EJ Index Comparisons