

Draft Environmental Assessment

Presque Isle State Park Road Realignment and Dune Construction Project

Erie County, PA

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FEMA

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Acronyms and Abbreviations

BHP	Pennsylvania Bureau for Historic Preservation
BMP	Best Management Practice
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
CWF	Cold Water Fishes
CZMA	Coastal Zone Management Act
dB	decibel
DCNR	Pennsylvania Department of Conservation and Natural Resources
DFIRM	Digital Flood Insurance Rate Map
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	Ozone
OSHA	Occupational Safety and Health Administration
PADEP	Pennsylvania Department of Environmental Protection
Pb	Lead
PDM	Pre-Disaster Mitigation Program
PDM-JES	Pre-Disaster Mitigation Program – Joint Explanatory Statement
PGC	Pennsylvania Game Commission
PM	Particulate Matter
PNDI	Pennsylvania Natural Diversity Inventory
RCRA	Resource Conservation and Recovery Act
SO ₂	Sulfur Dioxide
SWPPP	Stormwater Pollution Prevention Plan

Acronyms and Abbreviations

USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

1.1 PROJECT AUTHORITY

The Pennsylvania Department of Conservation and Natural Resources (DCNR) has applied to the Federal Emergency Management Agency (FEMA) for assistance with a road realignment and dune construction project in Presque Isle State Park (the Park), in Erie County, Pennsylvania. The project is a congressionally directed Pre-Disaster Mitigation (PDM) project assigned application number LPDM-PJ-03-PA-2008-001. PDM is a pre-disaster grant program authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. 5121 et seq., as amended by Section 102 of the Disaster Mitigation Act of 2000. Funding for the program is provided through the National Pre-Disaster Mitigation Fund to assist States and local governments (including Indian Tribal governments) in implementing cost-effective hazard mitigation activities that complement comprehensive mitigation programs aimed at reducing injuries, loss of life, and damage and destruction of property.

In accordance with Title 44 of the Code of Federal Regulations (CFR), Subpart B, Agency Implementing Procedures, Part 10.9, this Draft Environmental Assessment (EA) has been prepared pursuant to Section 102 of the National Environmental Policy Act of 1969 (NEPA), as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500–1508). The purpose of the Draft EA is to analyze the potential environmental impacts of the proposed alternatives, including the proposed project, and to determine whether to prepare an Environmental Impact Statement (EIS) or issue a Finding of No Significant Impact (FONSI).

1.2 PROJECT LOCATION

The proposed project is located in the northwest corner of Pennsylvania, within the Presque Isle State Park, Erie County, Pennsylvania (see Figure 1 in Appendix A).

1.3 PROJECT SETTING

Presque Isle State Park is a 3,200-acre peninsula located on the southern shore of Lake Erie in Erie, Pennsylvania. The peninsula, which arches toward the east into Lake Erie, partially surrounds Presque Isle Bay, a wide and deep harbor for the City of Erie. The peninsula is a re-curved sand spit composed predominantly of sand, pebble, and cobble carried by littoral currents and deposited to form the spit. The peninsula has historically been subject to the forces of erosion, particularly on the Lake Erie side of the peninsula, as sand moves from west to east and is deposited on the east side of the peninsula near Presque Isle Bay. Consequently, the peninsula also has a history of land use that includes an extensive segmented breakwater system and regular beach nourishment projects carried out by the U.S. Army Corps of Engineers (USACE).

Presque Isle State Park is considered a unique heritage park as it contains the only “seashore” area in Pennsylvania. Land use within the Park is primarily recreational, and includes fishing, swimming, cross-country skiing, bird watching, boating, hiking, biking, and hunting. A variety of habitat types exist within the Park, such as successional dunes, wetland complexes, forests, and meadows. Wildlife and birds are common in the Park and the Park is managed for both ecosystem health and human use.

The proposed project area includes two sections of Old Lake Road, including a multi-purpose recreational trail, which are located approximately 100 to 200 feet from Lake Erie parallel to the shoreline on the northern shore of Presque Isle. The project area includes eroded dune, fragments of disturbed forest, road/trail bed, unimproved (dirt) parking lots, and an overhead power line right-of-way. No structures or buildings are located within the project area, although bathhouses serving Beach #5 and the Stony Jetty sites are located nearby. Two small, isolated wetland areas are near the project area, but no streams, creeks, or other drainage features are present.

2.0 PURPOSE AND NEED

The purpose of the FEMA PDM-JES program is to provide funding to assist States and local governments (including Indian Tribal governments) in implementing cost-effective hazard mitigation activities that complement comprehensive mitigation programs, and reduce injuries, loss of life, and damage and destruction of property. The purpose of this action is to provide PDM-JES funding to DCNR for flood mitigation activities in Presque Isle State Park.

Presque Isle State Park is Pennsylvania's highest attended State recreational facility with approximately 4,000,000 visitors per year. The Park provides visitors with a variety of recreational activities, including swimming, boating, fishing, and hiking. Presque Isle State Park has experienced roadway flooding when storm and seiche events (e.g., standing waves in an enclosed body of water) cause large waves from Lake Erie to breach the dunes and wash over park access roads. The Presque Isle breakwater project, completed in 1992, mitigated the majority of roadway flooding. However, there are two locations along the park roads where flooding still occurs several times per year during lower lake elevations, and more frequently during higher lake elevations. The Park requested FEMA assistance in 2003, 2005, 2006, 2007, and 2008 in responding to these storm and seiche events. The average monetary damage from these five years was \$181,951.

The Park has two roads that are heavily used by visitors. Peninsula Road is the main park access road. It is a four-lane road that extends over two-thirds the length of the Park, transitioning near the farthest end of the spit into a two-lane loop road that encircles the Park. Old Lake Road, the original two-lane access road, extends along the shoreline on the western side of the peninsula, and is the only access road to parking for the 13 permitted park beaches, to other park shoreline recreational facilities, and for emergency vehicle access. The dunes along the shoreline have eroded at two locations and no longer protect inland areas from large waves. Each time waves breach the dunes and wash over Old Lake Road, water floods the adjacent portions of roadway and subsequently floods Peninsula Road, often forcing its closure and the evacuation of visitors from this section of the Park.

The purpose and need for this project is to reduce or eliminate flood damage to Presque Isle State Park property and to prevent the closure of park access roads and the subsequent inaccessibility of park recreational facilities by visitors and emergency vehicle traffic.

The proposed project would include the realignment of Old Lake Road and the construction of a barrier beach dune in the two areas.

3.0 ALTERNATIVES

This section describes the alternatives that were considered in addressing the purpose and need stated in Section 2 above. Four alternatives were considered as potential solutions to the Park's visitor and emergency vehicle access issues caused by the flooding of Old Lake Road in two locations during storm events. Two alternatives were carried forward for further evaluation in this EA: the No Action Alternative (Alternative 1), and the Proposed Action Alternative (Alternative 2), which is the realignment of Old Lake Road and creation of barrier dunes. The other alternatives considered, the Old Lake Road Closure Alternative (Alternative 3) and the Breakwater Construction Alternative (Alternative 4), were not carried forward for further evaluation in this EA for the reasons discussed below.

3.1 ALTERNATIVE 1: NO ACTION

Under the No Action Alternative, the two flood-affected sections of Old Lake Road would not be realigned, and barrier beach dunes would not be constructed. The two areas would continue to flood and there would be potential for the flooding to extend to other access roads. Costly cleanup activities by park crews to repair dune breaches and clear roadways after flood events would continue, as well as the Park's annual nourishment for re-establishment of beaches. Even with these efforts, park roadways would continue to flood during storm and seiche events and would sometimes be forced to close, preventing visitors and emergency vehicles from accessing numerous park facilities.

3.2 ALTERNATIVE 2: ROAD REALIGNMENT AND DUNE CONSTRUCTION PROJECT (PROPOSED ACTION)

Near Beach #5, flooding impacts a portion of Old Lake Road that is an approximately 2,100-foot long and 12-foot wide bituminous road. The old section of roadway would be left in place and the barrier beach dune constructed over top of it. The newly relocated portion of Old Lake Road (from the dunes inland) would consist of a 10-foot aggregate shoulder, an 8-foot wide bituminous bicycle lane, a 12-foot wide bituminous road, and a 5-foot wide aggregate shoulder (Appendix D).

At the Stony Jetty site, flooding impacts a portion of Old Lake Road that is an approximately 900-foot long and 12-foot wide bituminous road. As with the alignment proposed near Beach #5, the old sections of roadway would be left in place and a section of barrier beach dune constructed over top of the old road. The newly aligned portion of Old Lake Road (from the dunes inland) would consist of an 8-foot wide bituminous bicycle lane, a 12-foot wide bituminous road, and a 10-foot wide aggregate shoulder (Appendix D).

Construction of new road alignment would require the removal of portions of a narrow strip of vegetation that is located between the existing road alignment, existing unimproved parking areas, and Peninsula Drive.

Dunes would be constructed in both areas by staking snow barrier fencing along the beach. As sand accumulates behind the fences on the existing road surface, fencing would be placed successively higher on new dune surface to increase dune height. The end result would be approximately 10-foot high drift back beach dunes that would extend approximately 60 feet inland and function as barrier dunes for the protection of new road alignment from storm-related

flooding. Native flora consisting of Virginia wild rye (*Elymus virginicus*), fox sedge (*Carex vulpinoidea*), reedtop (*Agrostis alba*), willow (*Salix sp.*), and red dogwood (*Cornus sericea/stolonifera*) would be introduced to the new dunes. These native plantings would stabilize the dunes to better withstand future storm surges, consequently preventing washover to the interior of the Park.

Grading, topsoil replacement, seeding, and mulching would be used to finish the project areas after construction of the road and dunes are completed. Upon completion of construction, the barrier beach dunes could be expected to undergo varying stages of succession over time. After project completion, flooding of Old Lake Road would not be expected to occur for the useful life of the project (50 years), and the only maintenance costs would be sand removal caused by wind-drifted sand over park roadways.

3.3 ALTERNATIVES CONSIDERED AND DISMISSED

Other alternatives were considered but dismissed because they did not meet the purpose and need or were considered not feasible.

3.3.1 Alternative 3 – Old Lake Road Closure

Under this alternative, the two sections of Old Lake Road subject to flooding would be closed to public recreational and emergency vehicle access. Other Park roads, such as Peninsula Drive, would handle all public recreational and emergency vehicle traffic. Because flooding in the two areas of Old Lake Drive also flows onto Peninsula Drive, flooding would continue under this alternative, potentially affecting access to Peninsula Drive. More importantly, since the Park receives approximately 4,000,000 visitors per year, re-directing traffic to other roads would not adequately maintain access to beaches for the public and emergency vehicles. This alternative did not meet the purpose and need for the project and was dismissed from further consideration.

3.3.2 Alternative 4 – Breakwater Construction

Under this alternative, breakwaters would be constructed at the two flood-prone locations to dissipate wave energy during storms. Because the current configuration of breakwaters along the shore is a series of 55 segmented breakwaters that operate as a system, constructing breakwaters would include a lengthy design, engineering, and construction process, potentially involving evaluation of the entire existing breakwater system. Potential environmental consequences include impacts to waters of the U.S., water quality, coastal resources, geology and soils, threatened and endangered species, migratory birds, and historic/archaeological resources. This alternative was not considered to be feasible and was dismissed from further consideration.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

This section describes the potential impacts of the Proposed Action Alternative and the No Action Alternative. Where potential impacts exist, conditions or mitigation measures to offset these impacts are detailed. A summary table is provided in Section 4.12.

4.1 GEOLOGY AND SOILS

Underlying the relatively thin veneer (approximately 100 feet) of sand and other glacially derived sediments which make up Presque Isle State Park, lies almost 6,000 feet of sedimentary rock. The rocks consist of nearly horizontal layers of shale, limestone, dolostone (magnesium limestone), claystone, sandstone, and salt. The uppermost bedrock unit beneath Presque Isle State Park, the Devonian age Northeast Shale, is also exposed along the lake shoring in much of central and eastern Erie County. This rock is predominantly a gray silty shale, with thin layers of fine-grained sandstone and calcareous (limy) layers and lenses. Underlying the layers of sedimentary rock are older metamorphic rocks (DCNR 2009).

A review of the U.S. Geological Survey (USGS) 7.5-minute topographic map for the Erie North quadrangle indicates that the approximate elevation of the proposed project site averages 580 feet above mean sea level (USGS 1981). Local topography is relatively flat with a general slope to the west toward Lake Erie and east toward Presque Isle Bay.

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) online Web Soil Survey, the proposed project site contains soils classified as Beach and River Wash; Beach Sand, Stabilized; Dune Sand; and Fresh Water Marsh (USDA/NRCS 2009) (see Figure 4 in Appendix A). Beach and River Wash is a miscellaneous land type that is made up of unassorted sand, gravel, and small fragments of flagstone. Beach Sand, Stabilized, is a miscellaneous land type consisting of deep, sandy beach material that is nearly level and moderately well-drained to poorly drained. Dune Sand is a miscellaneous land type consisting of deep, loose, droughty, windblown sands. These sands were sorted from the lacustrine (lake) materials by wind and were blown into the shape of dunes and then colonized by plants. Fresh Water Marsh is a miscellaneous land type that occurs in shallow lagoons on the bay side of Presque Isle State Park. The soil material consists of 6 to 12 inches of partly decomposed organic material that is underlain by deep lacustrine sand and gravel. The surface is covered by 1 to 3 feet of water; the water level fluctuates seasonally and is especially high following storms (DCNR 2009).

The Farmland Protection Policy Act (FPPA) states that Federal agencies must “minimize the extent to which Federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses...” Soils within the project site are not classified as prime farmland soils and therefore, the FPPA does not apply (USDA/NRCS 2009).

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to geology or soils.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, construction activities would not be deep enough to impact underlying geologic resources. Soils on the proposed project site would be disturbed to

develop the property. The applicant would be required to submit Storm Water Pollution Prevention Plan (SWPPP) and National Pollutant Discharge Elimination System (NPDES) permit applications and obtain these permits prior to construction. Implementation of appropriate Best Management Practices (BMPs) would be required at the construction location. BMPs could include the installation of silt fences and the revegetation of disturbed soils to minimize the potential for erosion. Excavated soil and waste materials would be managed and disposed of in accordance with applicable local, State, and Federal regulations. If contaminated materials are discovered during the construction activities, the work would cease until the appropriate procedures and permits can be implemented.

4.2 WATER RESOURCES

4.2.1 Surface Water

The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharges of pollutants into the waters of the U.S.

The project area is generally level except where beach barrier dunes have been established and where temporary piles of sand for storm protection have been stored. No permanent water bodies exist in the project area. However, Lake Erie is located nearby within 100 to 200 feet of the project area. The protected water use for Lake Erie, as listed in Title 25 of the Pennsylvania Code (PA Code), Chapter 93, § 93.9x, is CWF (Cold Water Fishes). This is defined by Chapter 93 as the maintenance or propagation, or both, of fish species including the family Salmonidae, and additional flora and fauna which are indigenous to a cold water habitat. During periodic storm events that overwash dunes in the area, flood waters flow along the existing Old Lake Road bed onto Peninsula Drive but do not connect hydrologically to any surface waters.

Wetlands near the project area are addressed in Section 4.2.4 Waters of the U.S. Including Wetlands.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to surface water.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, minor short-term impacts to nearby surface waters (Lake Erie) may occur during the construction period due to soil erosion. To reduce potential impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fences and re-vegetating bare soils for the protection of Lake Erie. The applicant would also be required to obtain SWPPP and NPDES permits prior to construction if necessary.

4.2.2 Groundwater

The water table at Presque Isle State Park is generally very shallow and has the same or slightly higher elevation as Lake Erie. The loose unconsolidated sands that comprise the Presque Isle peninsula are permeable and would easily allow for the movement of groundwater except that the level topography affects the ability of groundwater to flow. This high permeability also permits groundwater quantity to change rapidly. Groundwater level fluctuation is tied to lake

water levels, as the high permeability of sand and the hydrostatic pressure of the surrounding lake prevents the groundwater level from falling significantly lower than the lake (DCNR 2009).

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to groundwater.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, construction activities such as clearing and grading would not reach a sufficient depth to impact groundwater. Dune construction would entail leaving the old road in place and building up sand over time; no grading or excavation would be required. Therefore, no impacts to groundwater are anticipated from the proposed project.

4.2.3 Floodplains

Executive Order (EO) 11988 (Floodplain Management) requires Federal agencies to avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA uses Flood Insurance Rate Maps (FIRMs) to identify the regulatory 100-year floodplain for the National Flood Insurance Program. Although the current FIRMs do not include the Presque Isle State Park, the preliminary Digital FIRM (DFIRM) includes the Park and, consistent with EO 11988, the DFIRM was used to determine the floodplain because it is considered the best and most current available information. The proposed project site is located in Other Areas: defined as Zone X (areas determined to be outside the 100-year and 500-year floodplains) or Zone D (areas in which flood hazards are undetermined, but possible) (Figure 2 in Appendix A; FEMA Date not Issued; Community Panel Number 42049C0065 D).

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to the floodplain.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, no impacts to the floodplain are anticipated. The proposed project is located outside the 100-year and 500-year flood zones.

4.2.4 Waters of the U.S. Including Wetlands

The USACE regulates the discharge of dredged or filled material into waters of the U.S., including wetlands, pursuant to Section 404 of the CWA. Additionally, EO 11990 (Protection of Wetlands) requires Federal agencies to avoid, to the extent possible, adverse impact to wetlands.

Waters of the U.S.

The proposed action would take place within 100 to 200 feet of Lake Erie. Lake Erie is considered waters of the U.S. but is also under the jurisdiction of the State of Pennsylvania within 500 feet of the low-water mark of the peninsula of Presque Isle (17 PA Code § 11.203 State park waters). Lake Erie is not within the project area's zone of disturbance and would be avoided throughout the implementation of the project.

Wetlands

Initial evaluation of the National Wetlands Inventory mapping (USFWS 2009) indicates the potential presence of wetlands in proximity to the proposed realignment (Figure 3 in Appendix A). The Cowardin classifications (Cowardin 1979) for wetlands mapped in the area are Palustrine Forested and Palustrine Scrub Shrub. A wetland delineation was performed by the Park Biologist, Marcus Snyder, on October 14, 2009, to identify wetland resources located in or near the project area. The delineation was performed in accordance with the Federal Manual for Identifying and Delineating Wetlands (Federal Interagency Committee for Wetland Delineation 1989) using the three parameter approach, including the presence of hydrophytic vegetation, hydric soils, and hydrologic indicators. Two wetland areas near the project area boundary were identified and subsequently delineated.

Wetland #1:

Wetland #1 is located adjacent to the project site. Although it is not located within the project site, it was flagged so that it could be avoided during construction. Wetland #1 has soils with a Munsell color of 10YR 7/1 with 7.5YR 5/6 mottles. Vegetation is dominated by common reed (*Phragmites australis*). A few trees such as cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*), and European alder (*Alnus glutinosa*) are also scattered around its perimeter. This area is low-lying and most likely collects stormwater runoff from adjacent roads and woodlots. A significant amount of vegetation and undecayed plant material is present on the ground surface. Wetland #1 is estimated to be approximately 0.3 acre in size.

Wetland #2:

Wetland #2 is located near the project site. This is a low-lying area near the power line where the new road would be constructed. Soils in the wetland area are sandy and have iron oxide streaks within 12 inches of the soil surface. Vegetation consists of red maple (*Acer rubrum*), swamp dewberry (*Rubus hispidus*), Tartarian honeysuckle (*Lonicera tartarica*), blue-stemmed goldenrod (*Solidago caesia*) and blackberry bushes (*Rubus allegheniensis*). The red maples exhibit heavily buttressed roots, which is a sign of wetland plant adaptations. Wetland #2 is estimated to be approximately 0.01 acre.

In a letter dated August 12, 2010, the USACE, Pittsburgh District has verified the boundaries of two jurisdictional wetlands in the project study area (Appendix B). Based on the preliminary site plans, these two wetland areas would be avoided during the design and construction phases (Appendix D).

Coastal Resources

Coastal Zone Management Act

The proposed project site is located within the Pennsylvania Coastal Zone. The Coastal Zone Management Act (CZMA) enables coastal States, including Pennsylvania, to designate State coastal zone boundaries and develop coastal management programs to improve protection of sensitive shoreline resources and guide sustainable use of coastal areas. Since the proposed project involves a grant from FEMA, Federal consistency review is required under 15 CFR Part 930, Subpart F – Consistency for Federal Assistance to State and Local Governments. Federal consistency review and conditional concurrence were provided on February 27, 2008, by the Pennsylvania Department of Environmental Protection (PADEP) (Appendix B). Concurrence

was provided under the condition that project work would not commence until a NPDES Permit for Stormwater Discharges Associated with Construction Activities has been granted or waived by the Erie County Conservation District.

Coastal Barrier Resources Act

The Great Lakes are included in the Coastal Barrier Resources Act (CBRA) (first included in Reauthorization of the Act in 1990). However, there are no CBRA zones in Pennsylvania according to the U.S. Fish and Wildlife Service (USFWS) coastal barrier resources maps accessed on October 6, 2009. Furthermore, Presque Isle does not meet the definition of undeveloped coastal barrier with few manmade structures.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to waters of the U.S., wetlands, or coastal resources.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, no impacts to waters of the U.S., wetlands, or coastal resources are anticipated.

4.3 TRANSPORTATION

The proposed project site is located within the Presque Isle State Park. The Park is accessible by State Route 832, which becomes Peninsula Drive within the Park. Peninsula Drive transverses the entire length of the Park. Access to the project site is provided by Old Lake Road which connects to Peninsula Drive.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and the project site would continue to be closed to transportation during flood events.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, there would be a minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the proposed project site that could potentially result in a slower traffic flow during the construction phase. To mitigate potential delays, construction vehicles and equipment would be stored onsite during project construction and appropriate signage would be posted on affected roadways.

Impacts to transportation in the project area would be temporary and minor during the construction phase of the project. Permanent impacts to transportation are beneficial because the long-term effect of the project is to remove limitations on public beach and emergency vehicle access caused by road flooding.

4.4 ENVIRONMENTAL JUSTICE

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) mandates that Federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

Although Presque Isle State Park is State property that is not within city limits, it is closely associated with the City of Erie. The City of Erie has a population of 102,036 individuals. According to the 2000 U.S. Census, in 1999 the median household income reported in the City of Erie was \$28,387, with 18.8 percent of individuals living below the poverty level. The 2007 median household income reported in all of Erie County was \$33,560, with 17.6 percent of individuals living below the poverty level. The median household income in the State of Pennsylvania was \$42,365, with 14.4 percent of individuals living below the poverty level (USCB 2000).

Minorities represented 19.4 percent, 9.0 percent, and 14.6 percent, respectively, of the City of Erie, Erie County, and the State of Pennsylvania populations. The following table shows the specific racial composition of the City of Erie, Erie County, and the State of Pennsylvania populations.

Ethnicity	City of Erie	Erie County	State of Pennsylvania
White	80.6 %	91.0 %	85.4 %
Black or African American	14.2 %	6.7 %	10.8 %
American Indian or Native Alaskan	0.2 %	0.2 %	0.2 %
Asian	0.7 %	0.8 %	2.4 %
Native Hawaiian or Other Pacific Islander	< 0.1 %	< 0.1 %	< 0.1 %
Source: USCB 2000			

Alternative 1 – No Action Alternative

Under the No Action Alternative, all park visitors would continue to be denied access to the public beaches and associated public facilities during road closures due to flooding. There would be no disproportionately high or adverse impact on minority or low-income portions of the population—all populations would continue to be affected.

Alternative 2 – Road Realignment and Dune Construction

The Proposed Action Alternative would provide a road that is not susceptible to flooding and that would be accessible and beneficial to all members of the community. There would be no disproportionately high or adverse impact on minority or low-income portions of the population—all populations would benefit from the realigned road and protective dunes.

4.5 AIR QUALITY

The Clean Air Act (CAA) requires that States adopt ambient air quality standards. The standards have been established in order to protect the public from potentially harmful amounts of

pollutants. Under the CAA, the U.S. Environmental Protection Agency (EPA) establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of “sensitive populations, such as people with asthma, children, and older adults.” Secondary air quality standards protect public welfare by promoting ecosystems health, and preventing decreased visibility and damage to crops and buildings. EPA has set National Ambient Air Quality Standards (NAAQS) for the following six criteria pollutants: ozone (O₃), particulate matter (PM_{2.5}, PM₁₀), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), and lead (Pb). According to EPA’s greenbook for non-attainment, Erie County and adjacent counties are in attainment, meaning no criteria air pollutants exceed the NAAQS.

Alternative 1 – No Action Alternative

The No Action alternative would have no effect on air quality because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

The proposed project is not expected to contribute emissions that would exceed the established NAAQS. Any effects to air quality from the operation of diesel engines or other construction equipment are expected to be localized and of short-duration. Construction contractors would be required to implement air quality protection measures such as watering down construction areas when necessary, reducing fuel-burning equipment running times, and properly maintaining engines during construction of the project.

4.6 NOISE

Noise is generally defined as unwanted sound. Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is an average measure of sound. The DNL descriptor is accepted by Federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses. EPA guidelines, and those of many other Federal agencies, state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for sensitive receptors (e.g., noise-sensitive land uses) such as residences, schools, or hospitals. The project site, as part of a State Park, is not located near any sensitive receptors.

Alternative 1 – No Action Alternative

The No Action alternative would not result in noise impacts because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

Sensitive receptors would not be affected as there are none located in proximity to the project area. Noise generated by the operation of equipment during the construction phase of the proposed project is expected to be temporary and minor. Construction would take place during normal business hours and equipment would meet all local, State, and Federal noise regulations.

4.7 BIOLOGICAL RESOURCES

The proposed project area includes eroded dune, scrub-shrub community, sub-climax forest, unimproved (dirt) parking areas, existing road/trail, and right-of-way for overhead power lines.

Vegetated areas are cross-cut or fragmented by parking lots for beach access and Old Lake Road and trail.

4.7.1 Vegetation

Vegetation in the project area, located in narrow strips between roads and parking areas, is of sub-climax forest type including eastern cottonwood, red maple, and red osier dogwood (*Cornus stolonifera*). Understory vegetation typically includes Tartarian honeysuckle, riverbank grape (*Vitis riparia*), and goldenrod (*Solidago* spp.). Dune habitat in the project area primarily consists of eroded dune and narrow beach areas subject to overwash and lake surge during storm events.

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no impacts to vegetation because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, approximately 1 acre of vegetation, including trees, would be cleared and graded for construction of the new road alignment. Jim Bissell, the Curator of Botany for the Cleveland Museum of Natural History, assessed the project area for rare plants on February 7, 2008, and concluded in a letter dated February 22, 2008, that the project would not likely impact any habitats that support rare plants at Presque Isle State Park (Appendix B). Mr. Bissell noted that the establishment of new dune habitat as proposed would allow beach plants such as purple sand grass (*Triplasis purpurea*), Oake's evening primrose (*Oenothera oakesiana*), coastal little bluestem (*Schizachyrium scoparium* var. *littorale*), and sea rocket (*Cakile edentula*) to become established. In a letter dated November 2, 2009, the DCNR stated that no impacts to rare plants were anticipated based on Mr. Bissell's assessment (Appendix B). In the same letter, DCNR suggested voluntary steps to prevent the spread of invasive species, including minimizing soil/vegetation disturbance, cleaning construction equipment before bringing it onsite, and using seed mixes free of weeds or other invasive species.

4.7.2 Aquatic Habitat

There is no aquatic habitat in the immediate project area, although nearby Lake Erie potentially contains habitat for species of concern, such as bowfin (*Amia calva*), cylindrical papershell (*Anodontooides ferussacianus*), warmouth (*Lepomis gulosus*), fragile papershell (*Leptodea fragilis*), and pink heelsplitter (*Potamilus alatus*) (based on a Pennsylvania Natural Diversity Inventory [PNDI] search performed on October 19, 2009).

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no impacts to aquatic habitat because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action, no impacts to aquatic habitats are anticipated. In a letter dated December 11, 2009, the Pennsylvania Fish and Boat Commission stated that no adverse impacts to aquatic species of special concern would be expected from the proposed project (Appendix B). Additionally, no Essential Fish Habitat (EFH) is within the project area or in Lake Erie in

proximity to the project (based on the National Oceanic and Atmospheric Administration [NOAA] *Essential Fish Habitat* mapper accessed on October 20, 2009).

4.7.3 Migratory Bird Treaty Act

Presque Isle State Park is located within the Atlantic Flyway and may provide resting, feeding, and breeding grounds for migrant birds. However, the project site itself does not contain suitable habitat as it is a disturbed area characterized by existing roadway, dirt lots, fragments of vegetation, and eroded dunes. Higher quality habitat exists within Presque Isle State Park in the extensive wetland areas located on the Presque Isle Bay side of the peninsula.

According to records derived from a PNDI search on October 19, 2009, four State-listed bird species may occur in the area. Two are State-listed endangered species: the black tern (*Chlidonias niger*) and least bittern (*Ixobrychus exilis*), and two are State-listed special concern species: the American coot (*Fulica americana*) and the marsh wren (*Cistothorus palustris*).

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no impacts to migratory birds because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, no impacts to migratory bird species are anticipated. In a letter dated January 5, 2010, the Pennsylvania Game Commission (PGC) stated that no impacts to birds or mammals under the PGC's jurisdiction are anticipated (Appendix B).

4.7.4 Threatened/Endangered Species and Critical Habitat

The project area does not contain suitable habitat for threatened and endangered species or designated critical habitat for any federally protected species. In a letter dated November 5, 2009, the USFWS Pennsylvania Field Office provided concurrence that no impacts to federally listed or proposed species are anticipated (Appendix B).

Designated Critical Habitat for the Great Lakes breeding population of piping plover (*Charadrius melodus*), a federally listed endangered species, has been established within the eastern portion of the Park from the Presque Isle Lighthouse to the southeast side of Gull Point.

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no impacts to federally protected species because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, no impacts to federally protected species, their suitable habitat, or designated critical habitat are anticipated. No impacts to the piping plover are anticipated as the project area is in the western portion of the Park where there is no suitable habitat for the piping plover. Vegetation to be cleared does not include suitable habitat for the piping plover. The eastern portion of the Park, where critical habitat is designated and monitored, will not be impacted by project activities.

4.8 CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, requires Federal agencies to take into account the effect that an undertaking would have on historic properties. Historic properties are those included in or eligible for inclusion in the National Register of Historic Places (NRHP) and may include archaeological sites, buildings, structures, sites, objects, and districts. In accordance with the Advisory Council on Historic Preservation regulations pertaining to the protection of historic properties (36 CFR 800.4), Federal agencies are required to identify and evaluate historic resources for NRHP eligibility and assess the effects the undertaking would have on historic properties.

On November 30, 2009, FEMA Region III staff met with the Pennsylvania Bureau for Historic Preservation (BHP, State Historic Preservation Office) to discuss this project in order to initiate consultation pursuant to Section 106 of the NHPA. During that meeting, BHP staff indicated that a geomorphological study of the proposed project Area of Potential Effects was warranted to determine if an intensive archaeological survey was necessary.

As a result, FEMA commissioned a geomorphological study in 2010 that included research and field investigations. Geological/geomorphological field investigations were initiated on April 18, 2010, and included a pedestrian reconnaissance of the project area, as well as the excavation and inspection of 16 deep backhoe trench soundings. In addition to the backhoe trench excavations, ground-penetrating radar transects were completed within the project area. The objectives of the geological/geomorphological study were to investigate the geology of the project area and depositional processes responsible for emplacement of the soil/sediment packages, determine the age of the soils/sediments within the study area, and determine the depths to which Phase I testing should extend, if warranted, to ensure the recovery of any and all potentially significant cultural resources.

Alternative 1 – No Action Alternative

The No Action Alternative would have no effect on cultural resources in the area because no construction would occur.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, FEMA has determined that no adverse effects to cultural resources would occur. Given the recent age of the sands encountered in the project area, as well as their emplacement under high-energy conditions during recent to historic times, there is no potential for the occurrence of potentially significant in situ historic or prehistoric cultural resources. In a letter dated July 20, 2010, the BHP, State Historic Preservation Office indicated that no further archaeological work is necessary for this project (Appendix B).

Should any historic or archaeological materials be discovered during construction, all construction work on the site would be halted immediately and Presque Isle Park would contact BHP and FEMA for further guidance. FEMA will consult with BHP on any discoveries.

4.9 HAZARDOUS MATERIALS

Hazardous substances are defined as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health and the environment. Hazardous substances are primarily generated by industry, hospitals,

research facilities, and the government. Improper management and disposal of hazardous substances can lead to pollution of groundwater or other drinking water supplies, and the contamination of surface water and soil. The primary Federal regulations for the management and disposal of hazardous substances are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

An Internet land use search was completed for the proposed project site (PADEP 2009). Based on the results of this Internet search, several active land recycling cleanup facilities were identified at the northern section of the Park. Several active well waste land recycling cleanup operations and two former gas wells are also located near the project site. All sites are listed as in compliance with PADEP.

The EPA Web site (EPA 2009) lists a park well on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database (CERCLIS EPA ID # PAD980508865). This well is located approximately ½ mile away from the project area, at Beach #7, in the picnic area on the lakeside of the Waterworks Park that was once located in the Presque Isle State Park. It was drilled by the City of Erie to a depth of 3,572 feet and was used to run machinery at the Waterworks. This well was abandoned in the 1920s. In the 1970s, hydrogen sulfide gas began to emanate from the well. The hydrogen sulfide gas was determined to be a result of the Hammermill Paper Company injecting 90,000,000 gallons of wood pulp, 4 miles east of the Beach #7 well, into an underground formation known as the Bass Island formation. The Beach #7 well was shut off and plugged in April 15, 1980, to 900 feet below the surface. In September 1983, the Beach #7 well was placed on EPA's National Priorities List (NPL). The NPL consists of hazardous sites across the country where cleanup needs are so serious as to warrant designation as a Superfund site. In 1992, EPA delisted the well from the NPL. In 2002, the well was capped and all aboveground piping was removed. On September 30, 2006, this site was deleted from the Final NPL. A section of the Multi-Purpose Trail extension currently occupies the site of the well.

The proposed project site is not located within any land-use types with potential for generating hazardous substances that would pose a contamination threat to the project site. No hazardous substances have been identified in the project area and the proposed work itself is not expected to generate any hazardous substances. Therefore, no further background research is recommended.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts from hazardous materials or waste.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, no hazardous materials or waste impacts are anticipated. Any hazardous materials discovered, generated, or used during construction would be handled and disposed of in accordance with applicable local, State, and Federal regulations.

4.10 SAFETY

Safety and security issues considered in this EA include the health and safety of the public-at-large that uses the Park, park personnel working in the Park, and the protection of personnel

involved in activities related to the proposed construction of the road realignment and barrier beach dune.

Construction activities could present safety risks to those performing the activities as well as the public-at-large. To minimize risks to safety and human health, all construction activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in the Occupational Safety and Health Administration (OSHA) regulations. The appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities.

Alternative 1 – No Action Alternative

Under the No Action Alternative, the safety and security of park users and construction personnel would not be affected over the short-term by activities related to road realignment, and dune construction. However, access for emergency vehicles during flooding events would continue to be an ongoing long-term safety concern for park users and park personnel.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, short-term safety risks to park users, park personnel, and construction personnel would be present during construction. Protective measures to be implemented during project construction would minimize these risks. All construction activities would be performed using qualified personnel and in accordance with the standards specified in OSHA regulations; appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities. Safety would be improved in the long-term under this alternative by removing flood-related limitations on emergency vehicle access. There would be no disproportionate health and safety risks to children.

4.11 SOCIOECONOMIC RESOURCES

The proposed project site is located north of the City of Erie and is bounded by Lake Erie to the west and by Presque Isle Bay to the east. The proposed project site is located within census tract 106 of Erie County. The total population, as measured by the 2000 U.S. Census, was 1,534, with 57.7 percent of citizens over the age of 16 participating in the work force. Leading employment sectors were management, professional, and related occupations (45.5 percent); sales and office occupations (21.5 percent); production, transportation, and material moving occupations (15.8 percent); and service occupations (13.1 percent). Leading industries include manufacturing (28.1 percent); educational, health, and social services (23.5 percent); and retail trade (13.0 percent).

Alternative 1 – No Action Alternative

Under the No Action Alternative, no impacts to socioeconomic resources would occur.

Alternative 2 – Road Realignment and Dune Construction

Under the Proposed Action Alternative, impacts to socioeconomic resources would be minimal. No permanent employment positions would be created or lost; temporary jobs would be created during the construction of the new road. Therefore, no adverse socioeconomic impacts are anticipated.

4.12 SUMMARY

The following table summarizes the potential impacts of the Proposed Action Alternative and conditions or mitigation measures to offset those impacts.

Affected Environment	Impacts	Mitigation
Geology and Soils	No impacts to underlying geology are anticipated. Soils on the project site will be disturbed on the surface by grading during construction.	A SWPPP and a NPDES permit must be obtained prior to construction. Implementation of appropriate BMPs would be required at the construction location, including the installation of silt fences and the revegetation of soils. Excavated soil and waste materials would be managed and disposed of in accordance with applicable local, State, and Federal regulations. If contaminated materials are discovered during the construction activities, the work would cease until the appropriate procedures and permits can be implemented.
Surface Water	No impacts to surface water are anticipated.	Appropriate BMPs, such as installing silt fences and revegetating bare soils, would minimize runoff; a SWPPP and a NPDES permit must be obtained prior to construction if necessary.
Groundwater	No impacts to groundwater are anticipated.	None
Floodplains	No impacts to the floodplain are anticipated.	None
Waters of the U.S. including Wetlands	No impacts to wetlands, waters of the U.S., or coastal resources are anticipated.	None
Transportation	Short-term, minor temporary increase in the volume of construction traffic on roads. Positive impacts to transportation are anticipated because the project would remove limitations on public beach and emergency vehicle access.	Construction vehicles and equipment would be stored onsite during project construction and appropriate signage would be posted on affected roadways.

Affected Environment And Impacts

Affected Environment	Impacts	Mitigation
Environmental Justice	All populations would benefit from the Proposed Action.	None
Air Quality	Short-term impacts to air quality would occur during the construction period.	Construction contractors would be required to water down construction areas when necessary; fuel-burning equipment running times would be kept to a minimum; engines would be properly maintained.
Noise	Short-term impacts to noise levels would occur at the proposed project site during the construction period.	Construction would take place during normal business hours and equipment would meet all local, State, and Federal noise regulations.
Biological Resources/ Threatened and Endangered Species	Approximately 1 acre of disturbed forest area would be impacted when cleared for the proposed project site. No impacts to other biological resources or any federally protected species or habitat are anticipated.	None
Cultural Resources	None	In the event that archaeological deposits, including any Native American pottery, stone tools, or human remains are uncovered, the project would be halted. The applicant would stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archaeological findings would be secured and access to the sensitive area restricted. The applicant would inform FEMA immediately and FEMA would consult with the State Historic Preservation Office or Tribal Historic Preservation Office and Tribes. Work in sensitive areas would not resume until consultation is completed and appropriate measures are taken to ensure that the project is in compliance with the NHPA.

Affected Environment And Impacts

Affected Environment	Impacts	Mitigation
Hazardous Materials	No hazardous materials or waste impacts are anticipated.	Any hazardous materials discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, State, and Federal regulations.
Safety	There is potential for temporary minor impacts to the safety of park users and construction personnel during construction activities. Positive impacts to public safety are anticipated, since emergency vehicles would have unrestricted access via the new road alignment.	All construction activities would be performed using qualified personnel and in accordance with the standards specified in OSHA regulations; appropriate signage and barriers would be in place prior to construction activities to alert pedestrians and motorists of project activities.
Socioeconomic Resources	No adverse socioeconomic impacts are anticipated.	None

5.0 CUMULATIVE IMPACTS

According to CEQ regulations, cumulative impacts represent the “impact on the environment that 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” (40 CFR 1508.7). In accordance with NEPA and to the extent reasonable and practical, this EA considers the combined effect of the Proposed Action Alternative and other actions occurring or proposed in the vicinity of the proposed project site.

The proposed project is a road realignment and dune construction directly adjacent to the existing road. The project is contained entirely within the Presque Isle State Park in Erie, Pennsylvania. The proposed project will bisect a narrow strip of disturbed forest surrounded by park infrastructure such as public and park employee buildings, parking lots, public beaches, and park access roads. The only other large-scale project ongoing within the Park is a beach re-nourishment project that is being conducted jointly between the USACE and the State of Pennsylvania. Since 1955, sand has been continuously added to the beach face of Presque Isle State Park to compensate for the loss of sand from beach erosion (DCNR 2009). The proposed project is not anticipated to result in significant cumulative impacts when considered in combination with the ongoing beach re-nourishment project.

6.0 PUBLIC INVOLVEMENT

FEMA is the lead Federal agency for conducting the NEPA compliance process for the Road Re-Alignment and Dune Construction Project in Presque Isle State Park, Erie County, Pennsylvania. The lead agency's goal is to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community and the purpose and need of the proposed action while meeting the intent of NEPA and complying with all NEPA provisions.

The public was notified of the availability of the Draft EA through publication of a public notice in a local newspaper and provided access to the EA at the Presque Isle State Park Tom Ridge Center located at 301 Peninsula Drive (Route 832), Suite 1 in Erie, Pennsylvania 16505-2042. The public notice was published on August 20, 2010, in the *Erie Times News*. The EA document was available for public review at the Tom Ridge Center beginning on August 20, 2010. The EA was also available for public review on the FEMA website (<http://www.fema.gov/plan/ehp/envdocuments/ea-region3.shtm>) and Presque Isle State Park website (<http://www.dcnr.state.pa.us/stateparks/parks/presqueisle.aspx>). FEMA conducted a 21-day public comment period commencing on the initial publication date of the public notice and ending on Friday, September 10, 2010 at 5:00 PM.

7.0 AGENCY COORDINATION

The following agencies and organizations were contacted by letter requesting project review during the preparation of this EA. Responses received to date are included in Appendix B.

- USFWS, Endangered Species Section, State College, PA
- USACE, Great Lakes and Ohio River Division, Pittsburgh District, Pittsburgh, PA
- PADEP, Pennsylvania Coastal Resources Management (CRM) Program, Harrisburg, PA
- Bissell, James, Curator of Botany, Cleveland Museum of Natural History, Cleveland, OH
- DCNR, Bureau of Forestry, Ecological Services Section, Harrisburg, PA
- Pennsylvania Fish and Boat Commission, Division of Environmental Services, Bellefonte, PA
- PGC, Bureau of Wildlife Habitat Management, Division of Environmental Planning and Habitat Protection, Harrisburg, PA
- Snyder, Marcus, State Park Biologist, Presque Isle State Park, Presque Isle, PA

In accordance with applicable local, State, and Federal regulations, the applicant would be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site.

8.0 CONCLUSIONS

No adverse impacts to geology, groundwater, floodplains, waters of the U.S., wetlands, coastal resources, environmental justice, aquatic habitat, migratory birds, threatened and endangered species, cultural resources, hazardous materials, or socioeconomic resources are anticipated with the Proposed Action Alternative. Positive impacts to transportation, environmental justice, and safety are expected. Long-term, minor impacts to biological resources include the clearing of less than an acre of disturbed forest from a portion of the proposed project site. During the construction period, short-term impacts to soils, downstream surface water, transportation, air quality, and noise are anticipated.

9.0 REFERENCES

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- USFWS. *National Wetland Inventory Web site*. 2009. U.S. Department of Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands>. Accessed October 6, 2009.
- U.S. Geological Survey (USGS). 1981. *Erie Pennsylvania, Erie North 7.5-minute Quadrangle*. 1:24,000 series.

10.0 LIST OF PREPARERS

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Appendix A

Figures



Project Areas

Legend

Project Areas (Approximate Boundary)

- ▣ 2,100 ft Road Re-alignment
- ▣ 900 ft Road Re-alignment



Data Source:
NGS Topographic Maps

NAD 1983 State Plane,
Pennsylvania North, FIPS 3701
Projection: Lambert Conformal Conic
Linear Unit: US Foot



Job: 15300590.00300

Prepared by: VP

Checked by: SF

Date: 12/22/2009

Figure 1
Project Location Map
Draft Environmental Assessment
Presque Isle State Park
Road Reinforcement and Dune Construction Project
Erie County, Pennsylvania

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
 The 1% annual chance flood (100-year flood) also known as the base flood is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being repaired to provide protection from the 1% annual chance or greater flood.
ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE
 The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS
ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS
ZONE D Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.
COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
OTHERWISE PROTECTED AREAS (OPAs)
 CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
 0.2% annual chance floodplain boundary
 Floodway boundary
 Zone D boundary
 CBRS and OPA boundary
 Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
 Base Flood Elevation line and value; elevation in feet*
 Base Flood Elevation value where uniform within zone; elevation in feet*
 *Referenced to the North American Vertical Datum of 1988

— D — D — Cross section line
 — 23 — 23 — Transsect line
 Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
 470000E 1000-meter Universal Transverse Mercator grid values, zone 17
 600000 FT 5000-foot grid ticks: Pennsylvania State Plane coordinate system, North Zone (FIPS/ESRI 3701), Lambert Conformal Conic projection
 DX5510 X Reach mark (see explanation in Notes to Users section of this FIRM panel)
 M 1.5 River Mile

NIP REPOSITORIES
 Refer to Map Repositories list on Map Index.
EFFECTIVE DATE OF COUNTY-WIDE FLOOD INSURANCE RATE MAP
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.
 To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6670.

PANEL 0045D

FIRM

FLOOD INSURANCE RATE MAP

ERIE COUNTY, PENNSYLVANIA (ALL JURISDICTIONS)

PANEL 45 OF 725
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MILLCREEK TOWNSHIP OF	420452	0045	D

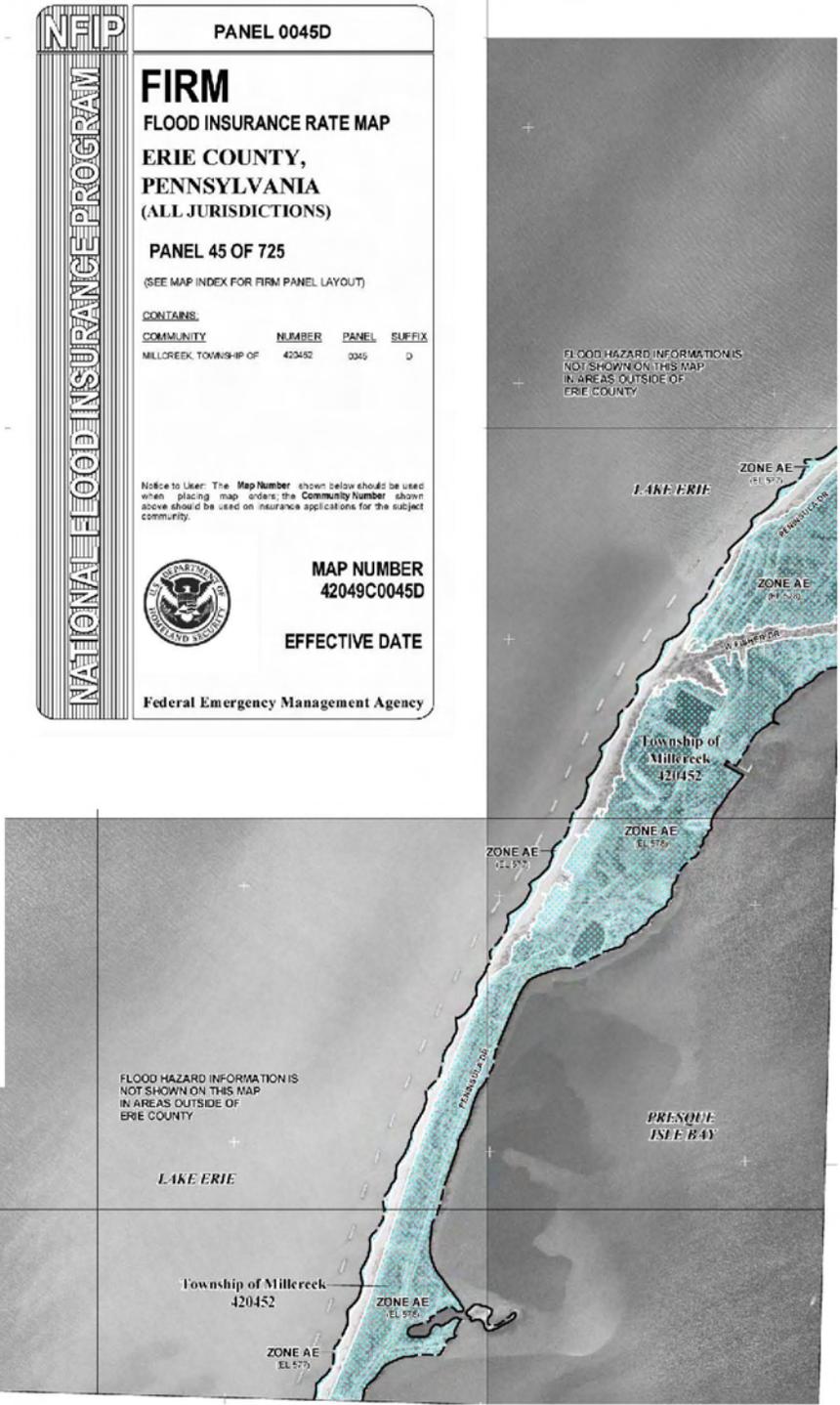
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
42049C0045D

EFFECTIVE DATE

Federal Emergency Management Agency



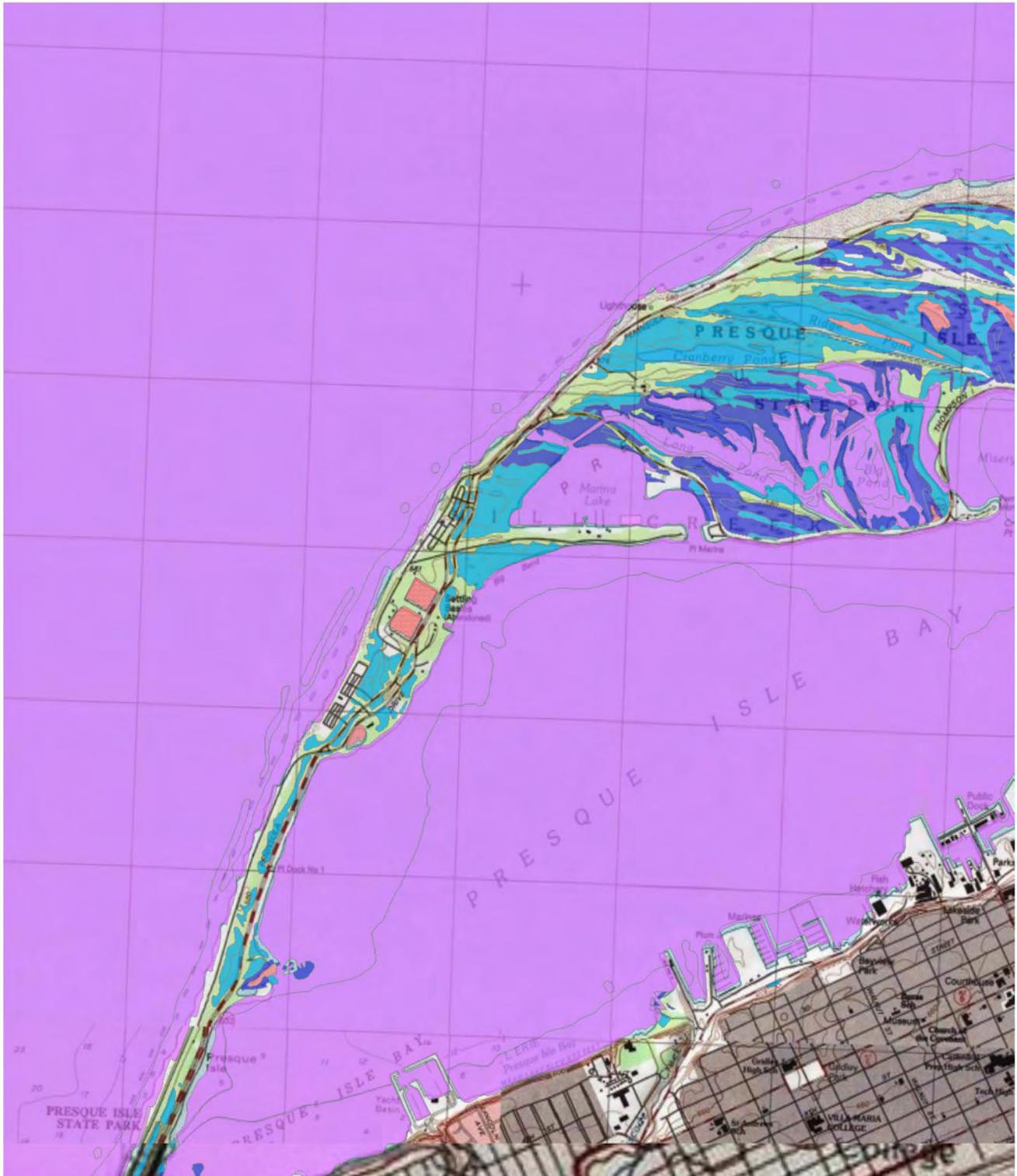
Data Source:
 DFIRM Millcreek Township
 Erie County
 Map Number 42049C0045D

NAD 1983 State Plane,
 Pennsylvania North, FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot



Job: 15300590.00300
 Prepared by: PLJ
 Checked by: SF
 Date: 12/22/2009

Figure 2
Floodplain Map (DFIRM)
Draft Environmental Assessment
Presque Isle State Park
Road Reinforcement and Dune Construction Project
 Erie County, Pennsylvania



Legend

- National Wetlands Inventory
- Freshwater Pond
- Lake
- Riverine Wetland
- Freshwater Forested/Shrub Wetlands
- Freshwater Emergent Wetland



Data Source:
 NGS Topographic Maps
 NAD 1983 State Plane,
 Pennsylvania North, FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

Lake Erie NY
 Erie
 Warren McKean
 Crawford Forest Elk
 OH Mercer Venango
 Butler Clinton Jefferson



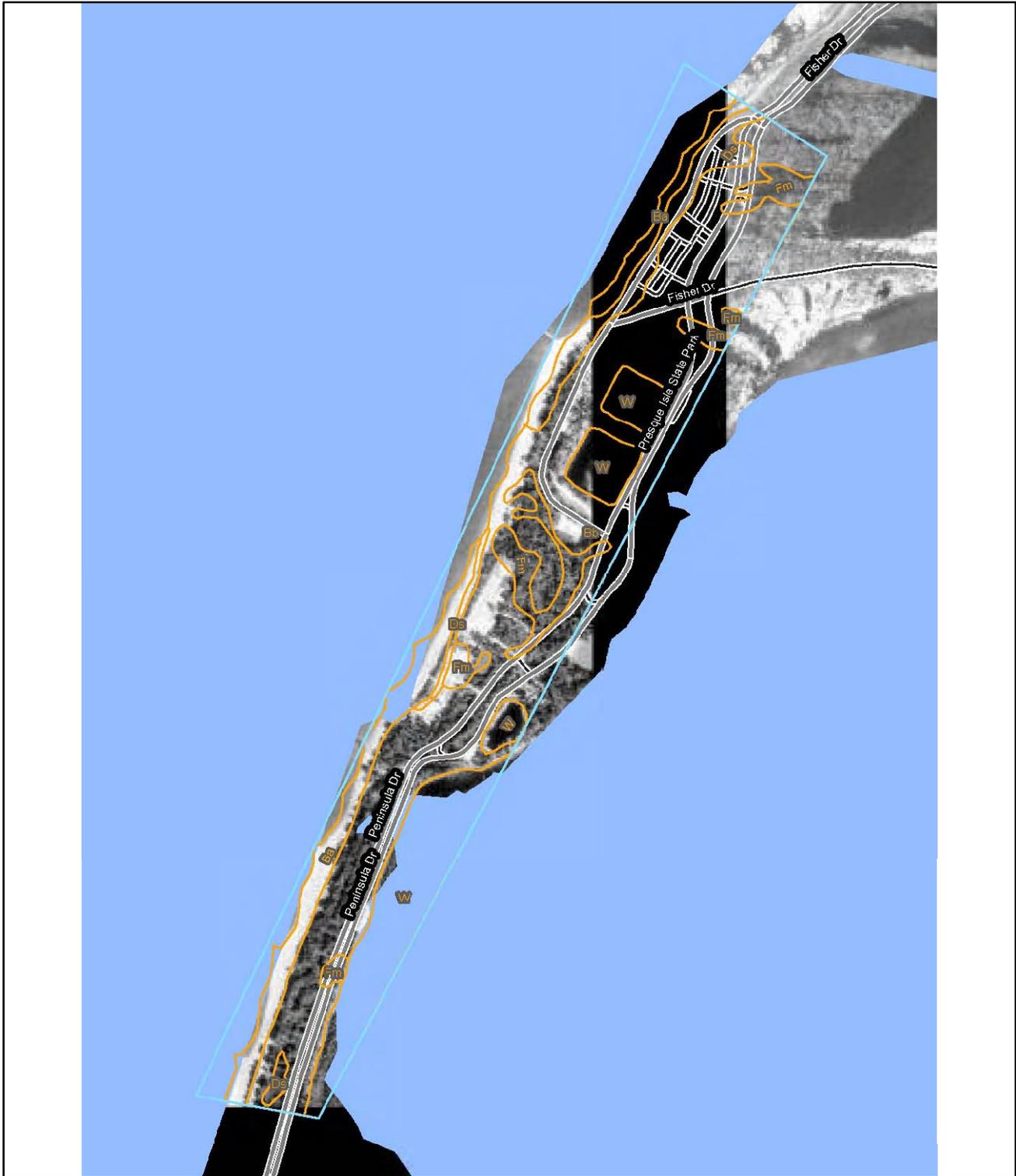
Job: 15300590.00300

Prepared by: VP

Checked by: SF

Date: 12/22/2009

Figure 3
NWI Wetlands Map
Draft Environmental Assessment
Presque Isle State Park
Road Reinforcement and Dune Construction Project
 Erie County, Pennsylvania



Legend

- Ba – Beach and Riverwash
- Bd – Beach sand, stabilized
- Ds – Dune sand
- Fm – Fresh water marsh
- W – Water



Data Source:
Soil map-Custom Soil Resource Report

NAD 1983 State Plane,
Pennsylvania North, FIPS 3701
Projection: Lambert Conformal Conic
Linear Unit: US Foot



Job: 15300590.00300

Prepared by: PLJ

Checked by: SF

Date: 06/11/10

Figure 4
Soils Map
Draft Environmental Assessment
Presque Isle State Park
Road Reinforcement and Dune Construction Project
Erie County, Pennsylvania

Appendix B
Agency Coordination



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PITTSBURGH DISTRICT, CORPS OF ENGINEERS
WILLIAM S. MOORHEAD FEDERAL BUILDING
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222-4186

August 12, 2010

Operations Division
Regulatory Branch
2009-2164

Marcus Snyder
PA Department of Conservation and Natural Resources
Bureau of Facility Design and Construction
400 Rachel Carson State Office Building
P.O. Box 8451
Harrisburg, Pennsylvania 17105-8451

Dear Mr. Snyder:

Reference is made to your request for review of a delineation, received on November 20, 2009. A delineation of two project areas for road relocation projects located in Presque Isle State Park in Erie, Pennsylvania was performed on October 14, 2009.

The Corps of Engineers' authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328. Navigable waters, their tributaries, and surrounding wetlands are waters of the United States subject to the provisions of Section 404 of the Clean Water Act. Based on the maps provided titled Existing Partial Site Plan Stone Jetty and Existing Partial Site Plan Beach #5 dated June, 2006, two wetlands exist on site. Wetland 1 is a forested wetland located within project area 1 and is 0.24 acre. Wetland 2 is a forested wetland located within project area 2 and is 0.01.

This delineation verification will remain valid for a period of five years from the date of this letter, unless new information warrants revision of the delineation. Every effort should be made to avoid impacts to the aquatic resources on-site. If stream or wetland impacts are proposed, this office should be contacted to discuss permit requirements.

If you have any questions, please contact Jared N. Pritts by phone at (412) 395-7251 or email at jared.n.pritts@usace.army.mil and reference project No. 2009-2164 in all future correspondence with this office regarding this delineation.

Sincerely,

A handwritten signature in cursive script that reads "Nancy Mullen".

Nancy Mullen
Chief, Northern Section
Regulatory Branch

Copy Furnished
PA DEP Northwest Regional Office

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Marc Snyder, DCNR	File Number: 2009-2164	Date: August 12, 2010
Attached is:	See Section Below	
INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A	
PROFFERED PERMIT (Standard Permit or Letter of Permission)	B	
PERMIT DENIAL	C	
APPROVED JURISDICTIONAL DETERMINATION	D	
PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I: The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at: <http://www.usace.army.mil/inet/functions/cw/ccwo/reg/appeals.htm> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II:

REQUEST FOR APPEAL OR OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

The Project Manager Identified In Your Jurisdictional Determination Letter

or

Appeal Review Officer, Ms. Pauline Thorndike

U.S. Army Corps of Engineers

Great Lakes and Ohio River Division

550 Main Street, Room 10032

Cincinnati, OH 45202-3222

(513) 684-6212

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent

Date

() _____
Telephone Number



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building

P.O. Box 2063

Harrisburg, PA 17105-2063

February 27, 2008

Water Planning Office

717-772-5622

Eugene J. Comoss, Director
Bureau of Facility Design and Construction
PA Department of Conservation and Natural Resources
400 Market Street
P.O. Box 8451
Harrisburg, PA 17105-8451

Re: CZM File No. CZ7:FA

Dear Mr. Comoss:

The Pennsylvania Coastal Resources Management (CRM) Program has reviewed information received in this office on February 21, 2008, concerning the proposed project titled **"PDM Grant Project – Road Flooding Mitigation, Presque Isle State Park, Contract No. FDC-220-4825.1"**. The project is located at Presque Isle State Park in Millcreek Township, Erie County, Pennsylvania, and is intended to eliminate road flooding. The project includes the relocation of two sections of Old Lake Road and adjacent utilities, clearing and grubbing, sub base construction, bituminous paving, demolition of the existing roadway, and the construction and planting of sand dunes.

This project, utilizing a grant from the Federal Emergency Management Agency (FEMA), was sent to CRM for our federal consistency review as required under 15 CFR Part 930 Subpart F -- Consistency for Federal Assistance to State and Local Governments.

We have determined that the aforementioned project is consistent with the Pennsylvania CRM Program under the following condition:

That the Bureau of Facility Design and Construction (**Bureau**), its grantees, or its contractors will not commence construction of this project until the Erie County Conservation District issues or waives the required National Pollution Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated with Construction Activities. This permit is required under the Commonwealth's Clean Streams Law, Act of June 22, 1937 (P.L. 1987, No. 394), as amended, 35 P.S. Section 691.1 *et seq.* This condition is necessary in order to ensure that the construction of this project will not adversely affect the water quality of Lake Erie, and will be undertaken in a manner consistent with CRM's enforceable policies 3.1: Fisheries Management, and 9.2: Water Quality. These two policies ensure that coastal waters shall not contain substances attributable to point and nonpoint source discharges in



concentrations to be harmful to the water uses to be protected, or to human, animal, plant, or aquatic life, including warm water or migratory fish.

If this condition is not met, then the Bureau, FEMA, and the Pennsylvania CRM Program will treat this conditional concurrence as an objection pursuant to 15 CFR Section 930. Furthermore, if you believe that this condition cannot be met, then the Bureau has the opportunity to appeal CRM's objection to the Secretary of Commerce, within 30 days after receipt of this concurrence / objection letter.

Please note that this determination pertains only to the federal consistency review requirements under the Coastal Zone Management Act of 1972 as amended, and does not constitute a waiver from further Department of Environmental Protection's review or other Departmental permits.

For information concerning the NPDES Permit for Storm Water Discharges Associated with Construction Activities, contact Gene Clement at the Erie County Conservation District at 814-825-6403.

If you have any questions concerning this conditional consistency determination, or require information on the federal CZM appeals process, please contact me at 717-772-5622.

Sincerely,



Lawrence J. Toth
Environmental Planner
Coastal Resources Management Program

1 Wade Oval Drive, University Circle
Cleveland, Ohio 44106-1767 USA

(216) 231-4600 • 1-800-317-9155 • FAX (216) 231-5919
www.cmnh.org



**Cleveland Museum of
NATURAL HISTORY**

22 February 2008

Harry Leslie, Park Manager
Presque Isle State Park
301 Peninsula Drive, Suite 1
Erie, PA 16505-2042

RE: Rare Plant Check at two hinge points proposed for highway relocation

Dear Harry,

The two sites I inspected with you on February 7 proposed for relocation of the highway adjacent to the western shoreline of Presque Isle will pose no impact to habitats that typically support rare plants at Presque Isle. The two sites proposed for eastern relocation of the highway, the site west of the Swan Cove Parking Lot - latitude 42 08 25 and longitude 80 08 25 and the site north of Beach 8 (Pettinato) Parking Lot - latitude 42 09 23 and longitude 80 07 45, are both vegetated by open forests of eastern cottonwood (*Populus deltoides*) with understories dominated by the non-native shrub Morrow's bush-honeysuckle (*Lonicera morrowi*). This particular habitat at Presque Isle does not usually support any rare plants with the occasional exception of a stray wafer ash (*Ptelea trifoliata*).

I have conducted rare plant surveys at both road relocation sites at least three times during the growing season within the last five years. Placement of sand and establishment of Beach Grass Dune along the Presque Isle shoreline to the west of the proposed road relocations will provide new habitat for several rare beach plants that inhabit Presque Isle. Plants that should respond positively to restored beach at both sites include purple sand grass (*Triplasis purpurea*), Oake's evening primrose (*Oenothera oakesiana*), coastal little bluestem (*Schizachyrium scoparium* var. *littorale*) and sea rocket (*Cakile edentula*).

The invoice for checking the two proposed road relocation sites is enclosed.

Sincerely,



Dr. James K. Bissell
Curator of Botany

Enclosure

November 2, 2009

PNDI Number: 20091019214805

PNDI Number: 20091019214807

Marcus Snyder
DCNR, Facility Design and Construction

Re: Road Flooding Mitigation, Presque Isle State Park
Millcreek Township; Erie County

Dear Marcus,

Thank you for submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Numbers 20091019214805 and 20091019214807 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

NO IMPACT ANTICIPATED:

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

No impact decision based on letter received from Jim Bissell of the Cleveland Museum of Natural History which stated that these projects were unlikely to impact any habitat for plant species of concern in the vicinity of the projects. If possible, please continue to coordinate with Jim Bissell after the projects are complete to assess new habitats created by these projects.

DCNR recommends the following VOLUNTARY steps to help prevent the spread of invasive species:

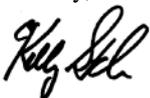
- The area of disturbance should be minimized to the fullest extent that would allow for safe road relocation; this will help to minimize the area of soil and vegetation disturbance associated with this project.
- If possible, please clean all construction equipment and vehicles thoroughly before they are brought on site, this will remove invasive plant seeds from the equipment and undercarriages of the vehicles that may have been picked up at other sites.
- Avoid using seed mixes that include invasive plant species (like Crown vetch) to re-vegetate the area. Please also attempt to use weed-free straw or hay mixes when possible. A complete list of all Pennsylvania invasive plants can be found here: <http://www.dcnr.state.pa.us/forestry/wildplant/invasivelist.aspx>

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for an additional year.

This finding applies to impacts to DCNR only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure the U.S. Fish and Wildlife Service, PA Game Commission, and the Pennsylvania Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



Mr. Kelly L. Stitch, Environmental Review Specialist FOR Chris Firestone, Wild Plant Program Mgr.
Ph: 717-425-5370 ~ Fax: 717-772-0271 ~ c-ksitch@state.pa.us

conserve

sustain

enjoy

P.O. Box 8552, Harrisburg, PA 17015-8552 717-787-3444 (fax) 717-772-0271



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5237 Fax: (814) 359-5175

December 11, 2009

IN REPLY REFER TO
SIR # 32871

MARCUS SNYDER
PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
400 Rachel Carson State Office Building
HARRISBURG, PA 17105-8451

**RE: Species Impact Review (SIR) - Rare, Candidate, Threatened and Endangered Species
ROAD RELOCATION 1 & 2
PNDI Search Number (if available): 20091019214807, 20091019214805
MILLCREEK Township, ERIE County, Pennsylvania**

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A Species Impact Review is valid for one year only.

NO ADVERSE IMPACTS EXPECTED FROM THE PROPOSED PROJECT

____ Except for occasional transient species, rare, candidate, threatened or endangered species under our jurisdiction are not known to exist in the vicinity of the project area. Therefore, no biological assessment or further consultation regarding rare species is needed with the Commission. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

If you have any questions regarding this review, please contact the biologist indicated below:

<input type="checkbox"/> Chris Urban	814-359-5113	<input type="checkbox"/> Tina Walther	814-359-5186
<input checked="" type="checkbox"/> Nevin Welte	412-586-2334	<input type="checkbox"/> Bob Morgan	814-359-5129

I am enclosing a copy of our "SIR Request Form", which is to be used for all future species impact review requests. Please make copies of the attached form and use with all **future** project reviews. Thank you in advance for your cooperation and attention to this important matter of species conservation and habitat protection.

SIGNATURE:  DATE: December 11, 2009
Christopher A. Urban
Chief, Natural Diversity Section

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE, HARRISBURG, PA
17110

*"TO MANAGE ALL WILD BIRDS, MAMMALS AND THEIR HABITATS
FOR CURRENT AND FUTURE GENERATIONS."*

PNDI Number(s): 20091019214805 and 20091019214807

January 5, 2010

Mr. Marcus Snyder
PA DCNR
400 Rachel Carson State Office Bldg.
Harrisburg, PA 17105-8451

PNDI Numbers(s): 20091019214805 and 20091019214807
FEMA Project: Road flooding Mitigation
Presque Isle State Park
Millcreek Township, Erie County

Dear Mr. Snyder:

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Numbers(s) 20091019214805 and 20091019214807. The Pennsylvania Game Commission (PGC) screened these projects for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated

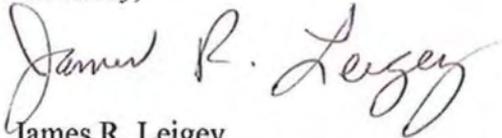
PNDI records indicate that no known occurrences of species or resources of concern under PGC jurisdiction occur in the vicinity of these projects. Therefore, the above-referenced projects are not expected to impact any birds or mammals of concern, and no further coordination with the PGC is necessary for these projects at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the projects to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, these projects will be cleared for PNDI requirements under this agency for an additional year.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural Resources, and/or the PA Fish and Boat Commission have been contacted regarding these projects as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



James R. Leigey
Wildlife Impact Review Coordinator
Division of Environmental Planning
And Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 3128
Fax: 717-787-6957
E-Mail: jleigey@state.pa.us

A PNHP Partner



Pennsylvania Natural Heritage Program

Cc: File

2010 - 0036

**FEMA PROJECT: ROAD RELOCAT
CONSTRUCTION AT PRESQUE ISL
TOWNSHIP, ERIE, PA**

PROJECT NARRATIVE:

Project Background:

There are two locations along the Lake Erie shore side of Presque Isle which experience erosion and flooding. Project Area No. 1 is located between Stone Jetty and Beach No. 8 "Pettinato". Project Area No. 2 is located west of Swan Cove and southwest of Beach No. 6.

Both of these sites erode because the breakwaters just offshore are close together. This creates a current effect, which erodes sand from adjacent shoreline. These areas would normally be depositional areas. Along most of the lake-side of the Isle, the shore consists of a breakwater, a flat beach where wave energy is dissipated, followed inland by dunes. In most cases, these dunes have been manmade by placing storm fences along the shore. These fences trap blowing sand that accumulates behind them. Placing the fence at successively higher levels along the newly created dunes builds them up in height. This creates a barrier to the interior of Presque Isle where roads and forest are located. Erosion removes the flat beach/sand dune system and exposes roads along the shore to flooding and the accumulation of debris.

Flooding is particularly bad during seiche, or "standing wave" events. This occurs when high winds force water from one side of Lake Erie to the other. The result is higher water levels on the eastern side of Lake Erie. This occurred recently on September 28, 2009 when 30-40 mph sustained winds in western Ohio forced water levels to rise in the eastern lake half. This occurred as far east as Buffalo.

Project Purpose:

Several alternatives were looked at to solve the above mentioned problems. Fixing the breakwaters was considered too costly. Removing the roads would create problems for beach access and traffic. It was decided to move the entire beach-dune-road layout further inland. At both locations, the existing flat beach areas would be allowed to develop between adjacent groins at their current locations. These areas would be further inland than the surrounding shoreline, but they would begin to dissipate wave energy and accumulate sand.

With these flat beach areas in place, new dunes would be created further inland. In some locations, these dunes would be built on top of the existing flooded roads. The existing road surface would be buried. Subsequently, the new replacement roads would be moved further inland.

In some areas, this would involve cutting and grading forested areas. At Project Area #1, the road would be located for some of its length along an existing power line right of



U.S. FISH AND WILDLIFE SERVICE
 Pennsylvania Field Office
 315 South Allen Street, Suite 322
 State College, Pennsylvania 16801-4850



We have already provided comments on this project (see PNDI receipt); therefore, no further correspondence will be sent by this agency. If there is a change in the project, please re-screen the project on-line, and contact this office if the PNDI receipt directs you to do so.

Cindy Libby ^{AS/Sup} Supervisor 11-5-09

way. Some of these areas would be leveled off at a slightly higher grade than the previous road to maintain them above any future high water levels.

After the beach areas are complete, they will be seeded with beach grasses. Cottonwood trees in the vicinity of the new dunes will not be cut down. The sand will be piled up around them. These trees should easily re-sprout new roots from their trunks after sand is piled up around them.

Environmental Clearances:

Two wetlands were located just outside of the project area. These areas were flagged and contractors will not be allowed to encroach upon them. A wetland delineation report was prepared. This report will be sent to the Pittsburg District Army Corps of Engineers and will be followed up by a jurisdictional determination.

Jim Bissell, of the Cleveland University, surveyed the site for plant species of special concern. No plants were identified. His findings and additional information will be forwarded to the Bureau of Forestry's Ecological Services Section for their concurrence. Thirty-four (34) plant species came up during the PNDI search.

The PA Game Commission will review this project. One species under their jurisdiction came up during the PNDI search.

The PA Fish and Boat Commission will review this project. Eleven (11) species under their jurisdiction came up during the PNDI search.



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

July 20, 2010

Kate McManus
FEMA, U.S. Dept. of Homeland Security
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER 2010-0478-049-B
FEMA: Access Road and Sand Dune Restoration, Presque Isle State Park,
Millcreek Township, Erie County

Dear Ms. McManus:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation as revised in 1999 and 2004. These regulations require consideration of the project's potential effect upon both historic and archaeological resources.

There may be historic buildings/structures/districts/objects eligible for the National Register of Historic Places located near the project area. However, in our opinion, the activity described in your proposal should have no effect on such resources. Should the scope and/or nature of the project activities change, the Bureau for Historic Preservation should be contacted immediately.

The Geomorphology report meets our standards and specifications as outlined in *Guidelines for Archaeological Investigations in Pennsylvania* (BHP 2008) and the Secretary of the Interior's Guidelines for Archaeological Documentation. We agree with the recommendations of this report and in our opinion no further archaeological work is necessary for this project.

00-1107 2-107-0152

Page 2
K. McManus
July 20, 2010

If you need further information regarding archaeological resources, please contact Kira Heinrich at (717) 705-0700. If you need further information concerning historic structures, please contact Susan Zacher at (717) 783-9920.

Sincerely,

A handwritten signature in blue ink that reads "Susan Zacher for". The signature is written in a cursive style.

Douglas C. McLearn, Chief
Division of Archaeology &
Protection

DCM/smz

Appendix C
Photograph Log

Photo 1 - View west toward existing road where 900 feet of realignment and dune construction is proposed. The bulldozed sand berm, as seen to the north, shows where breaching of the dune has occurred.



Photo 2 - View to the north of the area where the 900-foot section of road realignment will tie into the existing alignment. Some vegetation removal may be required in the narrow forested corridor visible to the right of the road.



Photo 3 - View to the west of the existing road and forested area where a 2,100-foot section of road realignment and dune creation is proposed. A temporary sand berm was put in place in the Summer of 2009 by the park as a stop gap measure against further flooding.



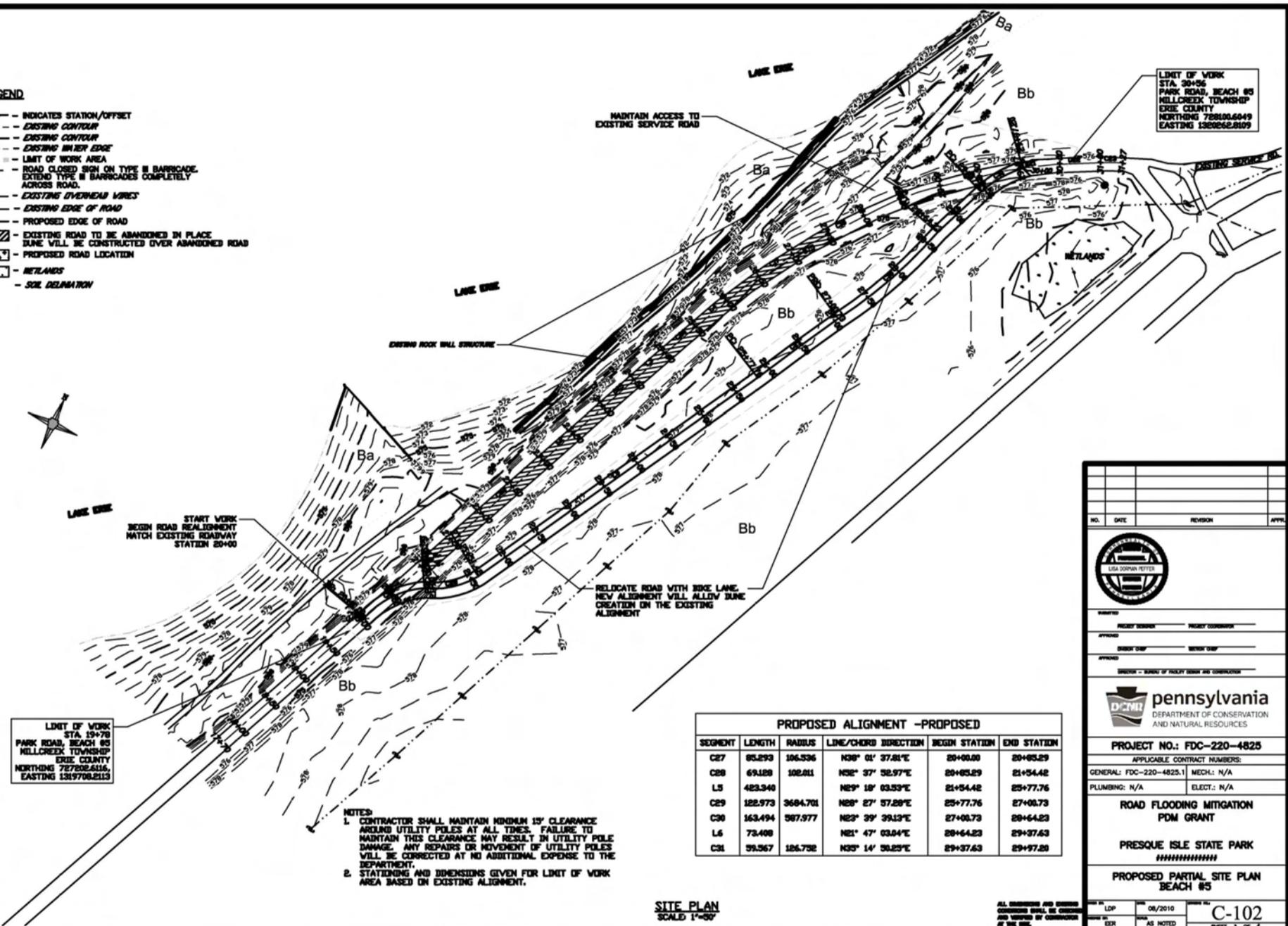
Photo 4 - View looking west toward wood line of proposed road alignment and existing overhead utility right-of-way.



Appendix D
Site Plans

LEGEND

- - - - - INDICATES STATION/OFFSET
- - - - - EXISTING CONTOUR
- - - - - EXISTING CONTOUR
- - - - - EXISTING INNER EDGE
- - - - - LIMIT OF WORK AREA
- - - - - ROAD CLOSED SIGN ON TYPE II BARRICADE. EXTEND TYPE II BARRICADES COMPLETELY ACROSS ROAD.
- - - - - EXISTING OVERHEAD WIRES
- - - - - EXISTING EDGE OF ROAD
- - - - - PROPOSED EDGE OF ROAD
- ▨ EXISTING ROAD TO BE ABANDONED IN PLACE. DUNE WILL BE CONSTRUCTED OVER ABANDONED ROAD
- ▣ PROPOSED ROAD LOCATION
- ▣ RETLANDS
- - - - - SOIL DELINEATION



LIMIT OF WORK
STA. 19+78
PARK ROAD, BEACH #5
HELLCREEK TOWNSHIP
ERIE COUNTY
NORTHING 727802.6115,
EASTING 1329708.2113

LIMIT OF WORK
STA. 30+56
PARK ROAD, BEACH #5
HELLCREEK TOWNSHIP
ERIE COUNTY
NORTHING 728086.6049
EASTING 1329862.8109

- NOTES:**
1. CONTRACTOR SHALL MAINTAIN MINIMUM 15' CLEARANCE AROUND UTILITY POLES AT ALL TIMES. FAILURE TO MAINTAIN THIS CLEARANCE MAY RESULT IN UTILITY POLE DAMAGE. ANY REPAIRS OR MOVEMENT OF UTILITY POLES WILL BE CORRECTED AT NO ADDITIONAL EXPENSE TO THE DEPARTMENT.
 2. STATIONING AND DIMENSIONS GIVEN FOR LIMIT OF WORK AREA BASED ON EXISTING ALIGNMENT.

PROPOSED ALIGNMENT -PROPOSED					
SEGMENT	LENGTH	RADIUS	LINE/CHORD DIRECTION	BEGIN STATION	END STATION
C27	85.293	106.536	N38° 01' 37.81"E	20+00.00	20+85.29
C28	69.128	102.811	N52° 37' 52.97"E	20+85.29	21+54.42
L5	423.340		N29° 18' 03.53"E	21+54.42	25+77.76
C29	122.973	3684.701	N28° 27' 57.28"E	25+77.76	27+00.73
C30	163.494	587.977	N23° 39' 39.13"E	27+00.73	28+64.23
L6	73.408		N21° 47' 03.04"E	28+64.23	29+37.63
C31	99.567	126.732	N32° 14' 30.25"E	29+37.63	29+97.20

SITE PLAN
SCALE: 1"=50'

ALL DIMENSIONS AND LOCATIONS
SHOWN SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

NO.	DATE	REVISION	APP'D.
PROJECT NUMBER: _____ PROJECT COMMUNITY: _____ APPROVED: _____ DESIGN DATE: _____ REVIEW DATE: _____ APPROVED: _____ DESIGNER - BUREAU OF PUBLIC WORKS AND CONSTRUCTION: _____			
PROJECT NO.: FDC-220-4825 APPLICABLE CONTRACT NUMBERS: GENERAL: FDC-220-4825.1 MECH: N/A PLUMBING: N/A ELECT: N/A			
ROAD FLOODING MITIGATION PDM GRANT			
PRESQUE ISLE STATE PARK *****			
PROPOSED PARTIAL SITE PLAN BEACH #5			
DATE	BY	SCALE	FIG. NO.
06/2010	AS NOTED		C-102

