

# Environmental Assessment

## August 2007



National Park Service  
U. S. Department of the Interior



Port Oneida  
Rural Historic District

Sleeping Bear Dunes  
National Lakeshore - Michigan



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## **EXECUTIVE SUMMARY**

### **Summary**

Port Oneida Rural Historic District (Port Oneida) is representative of late 19<sup>th</sup> and early 20<sup>th</sup> century farm landscapes of the upper Midwest. This area is the largest intact agricultural district in the National Park System and one of the largest historic agricultural district in public ownership in the country. The Port Oneida Rural Historic District was added to the National Register of Historic Places in 1997.

Port Oneida includes 19 farms and over 3,400 acres of land. Port Oneida presents an excellent opportunity to preserve a rapidly disappearing landscape associated with the heartland of America. The potential exists for visitors to be immersed in an American farm landscape for both recreation- and resource-based educational activities. This experience would provide an opportunity to understand and appreciate a landscape and lifestyle at the heart of rural life and our cultural heritage.

The need for the proposed project is driven by the deterioration of cultural resources within the Port Oneida Rural Historic District. Further deterioration would create health and safety hazards and result in the eventual loss of these cultural resources. Approximately 35 of the 110 historic structures in Port Oneida are in poor to fair condition and require immediate work. Exotic plant species are invading the cultural landscapes. Vegetative features such as windbreaks, orchards and garden areas are deteriorating.

Port Oneida is experiencing increased visitation and currently lacks visitor support services. Basic facilities such as public restrooms, a visitor contact station, picnic shelters or adequate parking areas are non-existent. Social trails created between farms and the beach areas are causing natural and cultural resource damage and beach erosion. Visitors frequently park along road shoulders, creating a safety hazard to motorists and pedestrians.

Several action alternatives were developed to provide for a new visitor contact station, new employee housing, improved circulation, rehabilitation and stabilization of historic structures, and the stabilization of cultural landscapes. Four action alternatives are being considered. These alternatives are listed based on location of the visitor contact station and employee housing, respectively: Carsten Burfiend/Peter Burfiend, Charles Olsen/Goffar, Dechow/Peter Burfiend, and Kelderhouse/Carsten Burfiend.

These alternatives were compared to a No Action Alternative. The action alternatives would provide physical improvements to Port Oneida by creating visitor amenities, rehabilitating or stabilizing historic structures, and restoring or stabilizing historic landscape features.

## **Public Comment**

If you wish to comment on the environmental assessment, you may mail comments to the name and address below. This environmental assessment will be on public review for 30 days. We encourage you to submit comments online using the Port Oneida Environmental Assessment link on the park's website ([www.nps.gov/slbe](http://www.nps.gov/slbe)). Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

A public meeting will be announced in the near future, which will provide you with another forum to comment.

Superintendent  
Sleeping Bear Dunes National Lakeshore  
9922 Front Street  
Empire, MI 49630



## **1.0 INTRODUCTION**

The National Park Service (NPS) at Sleeping Bear Dunes National Lakeshore proposes improvements to the Port Oneida Rural Historic District (Port Oneida). This environmental assessment (EA) analyzes the proposed action alternatives and their impacts on the environment and has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9).

The proposed project would involve the creation of a new visitor contact station, rehabilitation and stabilization of selected historic structures, the stabilization of selected cultural landscapes, improved pedestrian and vehicular circulation, and the rehabilitation of an existing structure for employee housing.

### **1.1. DESCRIPTION OF THE PARK**

Sleeping Bear Dunes National Lakeshore (Sleeping Bear Dunes) is located in Michigan's northwestern Lower Peninsula, in Leelanau and Benzie Counties (Figure 1-1). Situated 25 miles west of Traverse City, Sleeping Bear Dunes encompasses 35 miles of Lake Michigan's eastern coastline, as well as North and South Manitou Islands. Sleeping Bear Dunes can be accessed by US-31, M-72, and M-22.

Sleeping Bear Dunes was established by Public Law 91-479 on October 21, 1970, which states that "Congress finds that certain outstanding natural features, including forests, beaches, dune formations, and ancient glacial phenomena, exist along the mainland shore of Lake Michigan and on certain nearby islands in Benzie and Leelanau Counties, Michigan." In addition to the natural features, Sleeping Bear Dunes is home to many cultural features, including an 1871 lighthouse, three former Life-Saving Service/Coast Guard Stations and Port Oneida, an extensive rural farm district.

### **1.2. DESCRIPTION OF THE PROJECT AREA**

Port Oneida is a 3,400-acre historic agricultural landscape within the boundary of Sleeping Bear Dunes National Lakeshore. Port Oneida includes 110 contributing structures on 25 sites, with an additional 59 structures associated with the rural historic district. Sites include NPS-owned farms (14), NPS owned barns (4), privately owned farms (5), and schools (2). These sites are illustrated on Figure 1-2, excluding the privately owned farms.

Presently, there are 19 farms, five of which are privately owned (Figure 1-2). The landscape includes inactive farm fields, orchards, cemeteries, sugar maple groves, pine plantations, forested hills, wetlands, beaches, an intact road system, former dock site, and two schoolhouses. The NPS has spent the last ten years researching and developing a regional historic context for agriculture in Sleeping Bear Dunes including a detailed site survey and resource documentation, and has listed Port Oneida in the NRHP. These

**Figure 1-1: Vicinity and Location Map**

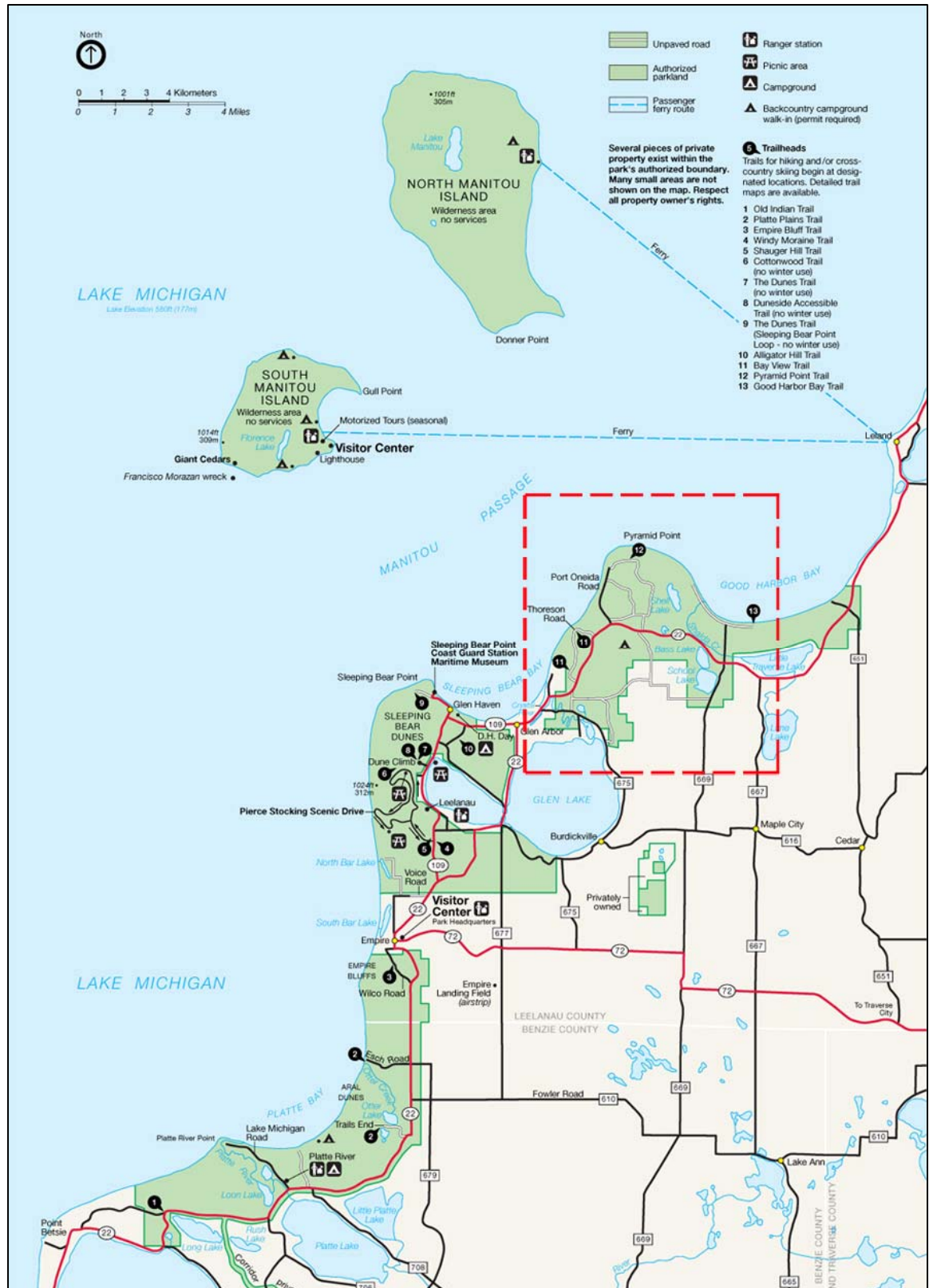
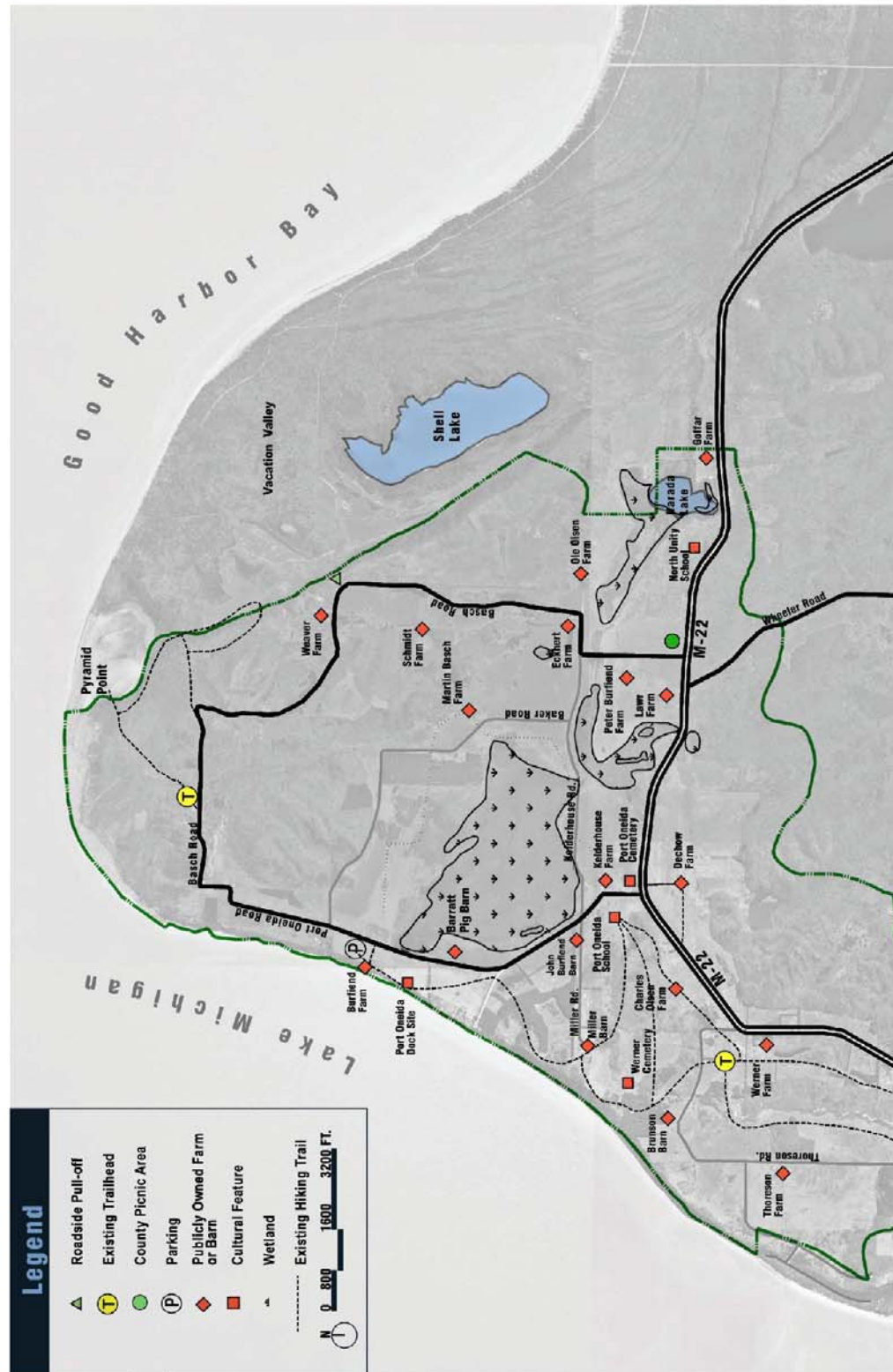


Figure 1-2: Port Oneida Map



efforts have indicated that Port Oneida is the largest and most complete historic agricultural landscape in public ownership in the country.

Port Oneida is located along state highway M-22, which in this location is designated as a Scenic Heritage Route by the Michigan Department of Transportation. The community was first settled during the 1860s, and the farms within Port Oneida are typical of turn-of-the-century farms throughout the Midwest. Port Oneida is historically significant because it conveys the land use practices, architecture, and evolution of agriculture and of agricultural technology common to subsistence farms of the upper Great Lakes region.

### **1.3. PURPOSE OF AND NEED FOR THE PROPOSED PROJECT**

Port Oneida Rural Historic District is representative of late 19<sup>th</sup> and early 20<sup>th</sup> century farms of the Midwest. This area is the largest intact agricultural district in the National Park System and the largest historic agricultural district in public ownership in the country. Port Oneida was added to the National Register of Historic Places (NRHP) in 1997 at the state level of significance. In 1999, the State Historic Preservation Office (SHPO) indicated their concurrence that Port Oneida met the national level of significance. NRHP sites are determined to be significant at either the local, state, or national level. The level of significance is related to the geographic level or “scale” of the property’s historic context.

Port Oneida includes 19 farms, 14 of which are owned by the NPS, and over 3,400 acres of land. Port Oneida presents an excellent opportunity to preserve a rapidly disappearing landscape associated with the heartland of America. The potential exists for visitors to be immersed in an American farm landscape for both recreation- and resource-based educational activities. This experience would provide an opportunity to understand and appreciate a landscape and lifestyle at the heart of rural life and cultural heritage.

Completion of this project would upgrade the condition of selected structures and selected landscape features so they can be utilized by the NPS or partners for operations. It would provide additional interpretive activities to enhance visitor understanding and appreciation of the area through the addition of a visitor contact station. Selected historic structures and landscape features would be stabilized, visitor use needs met and natural resources protected.

The need for the proposed project is driven by the deterioration of cultural resources within the Port Oneida Rural Historic District. Further deterioration would create health and safety hazards and result in the eventual loss of these cultural resources. Approximately 35 of the 110 historic structures in Port Oneida are in poor to fair condition and require immediate work. Cultural landscapes in this historic district are being invaded with exotic plant species. Vegetative features such as windbreaks, orchards and garden areas are deteriorating.

Additionally, Port Oneida is experiencing increased visitation and currently lacks visitor support services. Basic facilities such as public restrooms, a visitor contact station, picnic

shelters or adequate parking areas are non-existent. Social trails created between farms and the beach areas are causing natural and cultural resource damage and beach erosion. Visitors frequently park along road shoulders, creating a safety hazard to motorists and pedestrians.

The following objectives were identified by NPS staff in initial project planning phases and must be achieved for the project to be considered a success.

1. Stabilize and rehabilitate selected historic structures and cultural landscapes.
2. Provide a visitor contact station to enhance visitor access, recreational opportunities and improved circulation (parking, pull-offs, trails).
3. Provide employee housing within Port Oneida.

#### **1.4. PLANNING CONTEXT**

The *General Management Plan* (NPS, 1979) provides a general framework to guide management decisions over a 20-year period. Sleeping Bear Dunes is currently in the process of developing a new General Management Plan. The draft *Landscape Management Plan: Port Oneida Rural Historic District* (NPS, 1999b) outlines a standardized approach to managing the historic agricultural landscape features found within Port Oneida, but has not yet been finalized. The draft *Landscape Management Plan* was used as a foundation for developing specific treatment approaches and establishing priorities for the historic landscapes and agricultural fields within Port Oneida.

The project to stabilize and rehabilitate historic structures and cultural landscapes, and enhance visitor access to interpretive and recreational opportunities within Port Oneida Rural Historic District represents a continued commitment to preserve significant park resources. The proposed action alternatives would not conflict with any ongoing or planned management activities within Sleeping Bear Dunes (Table 1-1).

#### **1.5. SCOPING**

Scoping is the effort to involve federal and state agencies, local government and interests, and the public in determining the issues to be addressed in the environmental assessment. Among other tasks, scoping identifies important issues and eliminates issues that are ultimately unimportant; allocates assignments among the interdisciplinary team members and other participating agencies; identifies related projects and associated documents; identifies permits, surveys, or consultations required by other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made.

**Table 1-1: Project's Relationship to Other Plans**

<b>Management Activities</b>	<b>Relationship to Proposed Action</b>
M-22 from the Benzie/Leelanau County line (Manning Road) to the junction with M-72 northwest of Traverse City was designated as a Scenic Heritage Route.	The <i>M-22 Scenic Heritage Corridor Management Plan</i> (Leelanau Scenic Heritage Route Committee) has five goals. The improvements to Port Oneida are consistent with these goals.
Creation of the Leelanau Scenic Heritage Trailway.	A 10-foot wide multi-use trailway that would parallel M-22 is being proposed from the Benzie/Leelanau County line to Lake Michigan Road – County Road 651. Improvements within Port Oneida will be considered along with this future project.
Stabilize and rehabilitate buildings in Glen Haven Village Historic District.	Glen Haven is approximately 4 miles west of Port Oneida. The goal is to stabilize and rehabilitate historic buildings within the Glen Haven District and provide visitor services.
General Management Plan/Wilderness Study/EIS	This document will provide long-term management guidance for Sleeping Bear Dunes for the next 20 plus years. The document will develop management “zones” for all areas of the park, which will define the desired future conditions (resource, use, and development) for each zone. This document will also determine the location and amount of lands to be recommended to Congress for wilderness designation. It is scheduled for completion in December 2008.

Internal and external scoping occurred prior to preparation of this environmental assessment. Internal scoping involved an interdisciplinary process to identify issues, alternatives, and data needs. The project planning team held an internal scoping meeting at the park in October 2005.

External scoping included coordination with interested federal and state agencies along with associated Indian tribes. Scoping letters were sent to associated Indian tribes, resource and regulatory agencies, MDOT, interest groups, and the public. Appendix A contains a copy of the scoping letter.

The public was also given opportunities to comment and provide feedback throughout development of the environmental assessment. A booth was set up during the Port Oneida Fair in August 2005. Representatives from Sleeping Bear Dunes were available to answer questions. Maps and a list of possible future activities/developments were provided for review. A mailing list sign-up sheet was also provided. Scoping letters were sent in August 2005 to local, state, and federal regulatory and resource agencies; interested citizens; tribes; and organizations. A press release was issued in April 2006 describing the project and announcing the May 2006 public workshops. Project information was also posted on the NPS Planning, Environment, and Public Comment (PEPC) website, which was accessible via a link in the park's web site ([www.nps.gov/slbe](http://www.nps.gov/slbe)). The public was invited to provide preliminary comments from April 11 to May 8, 2006, via a press release, the website, and the workshops.

## 1.6. ISSUES

The planning team identified the following issues during scoping, regarding the need to stabilize and enhance the Port Oneida Rural Historic District.

- Historic structures within Port Oneida are currently boarded up and inaccessible to the public; 35 of 110 structures are in poor to fair condition.
- Further deterioration would create health and safety hazards and result in the eventual loss of historically significant cultural resources.
- Open fields in Port Oneida are being overtaken by vegetative growth, including invasive species such as black locust (*Robina pseudoacacia*), and spotted knapweed (*Centaurea maculosa*). The open fields are in fair condition and require intervention to maintain historic field/forest patterns. These invasive plants threaten native plant and animal communities.
- Landscape features such as windbreaks, orchards and garden areas are deteriorated, overgrown, or are being overcrowded by vegetation.
- No organized beach access is available, and visitors descending down the bluff are creating hillside paths and causing slope erosion.
- Port Oneida is experiencing increased visitation and currently lacks visitor support services.
- Employee housing is currently located at one of the most intact and complete farms in Port Oneida. This use at this location should be evaluated within the context of the proposed improvements.
- Provide housing for employees at a farm within Port Oneida.

## 1.7. IMPACT TOPICS

Impact topics are the resources of concern that could be affected by the range of alternatives. Specific impact topics were developed to ensure that alternatives were compared on the basis of the most relevant topics. Impact topics were identified on the basis of federal laws, regulations, and executive orders, and NPS *Management Policies 2006* (2006b), as well as agency and public input during scoping. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.

### 1.7.1. Impact Topics Selected for Detailed Analysis

Each of the following impact topics would be impacted by one or more of the alternatives and, consequently, they have been retained for detailed analysis.

#### **Ecological Resources**

The National Environmental Policy Act of 1969 calls for an examination of the impacts on all components of affected ecosystems. According to NPS *Management Policies 2006* (2006b), the National Park Service strives to maintain all components and processes of naturally evolving park unit ecosystems, including the natural abundance, diversity, and ecological integrity of plants and animals.

The former agricultural fields within Port Oneida serve as habitat for meadow wildlife, especially grassland nesting birds (NPS, 1999a). Open fields in Port Oneida are being overtaken by exotic plants, such as black locust and spotted knapweed. These exotics threaten wildlife habitat and disrupt the integrity of the cultural landscape. The open fields are in fair condition and require intervention to maintain historic field/forest patterns.

### **Cultural Resources**

Port Oneida was listed on the NRHP at the state level of significance in 1997. In 1999, the SHPO indicated their concurrence that Port Oneida Rural Historic District met the national level of significance. The National Historic Preservation Act, as amended, (16 USC 470 *et seq.*); the National Environmental Policy Act of 1969; and the NPS Director's Order 28, *Cultural Resource Management* (1998b), NPS *Management Policies 2006* (2006b), and Director's Order 12, *Conservation Planning, Environmental Impact Analysis, and Decision Making* (2001) require the consideration of potential impacts on archeological resources, historic structures, and cultural landscapes listed in or eligible for listing in the NRHP.

### **Cultural Landscapes and Historic Structures**

According to the National Park Service's *Cultural Resource Management* (DO 28) (1998b), a cultural landscape is

...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Thus, cultural landscapes are the result of the long interaction between people and the land – the influence of human beliefs and actions over time upon the natural landscape. Shaped through time by historical land-use and management practices, as well as politics and property laws, levels of technology, and economic conditions, cultural landscapes provide a living record of an area's past and a visual chronicle of its history. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes, making them a good source of information about specific times and places, while at the same time, rendering their long-term preservation a challenge. The Port Oneida Rural Historic District is representative of late 19<sup>th</sup> and early 20<sup>th</sup> century farm landscapes of the upper Midwest. Port Oneida includes 19 farms, four NPS-owned barns, two schools, and over 3,400 acres of land.

The purpose of the project is to stabilize historic structures and cultural landscapes. The action alternatives would impact NRHP eligible or listed cultural landscapes and historic structures; however, the character of the structures and the cultural landscape would be maintained.



## **Park Operations**

New facilities within Port Oneida would need to be maintained, including the visitor contact station and restroom facilities. Park operations would be impacted by the need for additional patrolling of these new facilities along with a potential need for additional park staff for visitor assistance. Minimal maintenance and clearing would occur during the winter to maintain access for emergency vehicles.

## **Visitor Use and Experience**

Visitor use in Port Oneida is likely to increase as a result of the proposed improvements within Port Oneida. The action alternatives would improve visitor use and experience through a new visitor contact station, parking facilities, comfort stations, trails, and vehicle pull-offs.

### **1.7.2. Impact Topics Dismissed from Detailed Analysis**

The following impact topics would not be affected by the proposed alternatives, resulting in their dismissal from detailed analysis.

## **Soils**

A limited area of soils would be impacted by all action alternatives due to the construction of new parking areas and vehicle pull-offs within Port Oneida. Additional impacts would occur during the construction of septic tanks and leach fields at the visitor contact station and employee housing sites. However, the area of these construction activities would be confined and isolated, and impacts would be negligible.

## **Floodplains and Wetlands**

Executive Order 11990, *Protection of Wetlands*, requires federal agencies to avoid, where possible, adversely impacting wetlands. The goal of NPS wetlands management is to strive to achieve no net loss of wetlands as defined by both acreage and function. Proposed actions that have the potential to adversely impact wetlands must be addressed in a statement of findings. Executive Order 11988, *Floodplain Management*, requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternative exists. Certain construction within a 100-year floodplain requires preparation of a statement of findings.

There is a large wetland central to the Port Oneida area. None of the alternatives propose construction activities near this wetland. Consequently, the proposed alternatives do not impact any designated or functional wetlands as described in the Clean Water Act Section 404, Executive Order 11990, or by NPS Director's Order 77-1: *Wetland Protection*. Implementation of the proposed alternatives would not adversely affect the natural values and functions of any floodplain or increase flood risks. Therefore, floodplains and wetlands are dismissed as an impact topic and statements of findings for floodplains or wetlands will not be prepared.

### **Water Quality (Surface Water Quality)**

NPS *Management Policies 2006* (2006b) require protection of water quality consistent with the Clean Water Act. Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting process, discharge of dredged or fill material or excavation in U.S. waters.

No estuarine resources are present within the project area, and no drains or streams are adjacent to the project areas for the action alternatives; therefore, there would be no impacts to water quality as a result of the proposed alternatives. No discharge of dredged or fill material, or excavation in waters would occur; therefore, a 404 permit is not required. The large wetland within the project area, north of Kelderhouse Road and east of Port Oneida Road, has a groundwater connection; however, this wetland would not be affected by any of the proposed alternatives. For these reasons, water quality was dismissed as an impact topic.

### **Threatened and Endangered Species, and Species of Special Concern**

The Endangered Species Act (1973) requires an examination of impacts on all federally-listed threatened or endangered species. NPS policy also requires examination of potential impacts on state-listed threatened, endangered, candidate, rare, declining, and sensitive species that are known collectively as species of concern.

The NPS must conference or informally consult with the United States Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service pursuant to Section 7 of the Endangered Species Act to (1) clarify whether and what listed, proposed, and candidate species or designated or proposed critical habitats may be in the project area; (2) determine what effect proposed actions may have on these species or critical habitats; and (3) determine the need to enter into formal consultation for listed species or designated critical habitats, or conference for proposed species or proposed critical habitats. On March 14, 2007, the USFWS provided a list of threatened or endangered species, candidate species, and species of special concern that may be potentially found in the vicinity of Sleeping Bear Dunes. The following species were identified, bald eagle (*Haliaeetus leucocephalus*), piping plover (*Charadrius melodus*), Michigan monkey-flower (*Mimulus glabratus* var. *michiganensis*), and pitcher's thistle (*Cirsium pitcheri*). It was also stated that the breeding range of the Indiana bat (*Myotis sodalis*) occurs within the southern half and western coastal counties of the Lower Peninsula, including Benzie and Leelanau Counties, however, Indiana bat has not been confirmed within Sleeping Bear Dunes. Critical habitat for the piping plover does occur within Sleeping Bear Dunes, but would not be impacted by the proposed project. Staff at Sleeping Bear Dunes have determined that neither the bald eagle, the Michigan monkey-flower, nor Pitcher's thistle are present in the Port Oneida area. Therefore, threatened and endangered species, and species of special concern was dismissed as an impact topic.

### **Air Quality**

The Clean Air Act, as amended (42 USC 7401 *et. seq.*) and Section 118 of the Clean Air Act requires all federal facilities to comply with existing federal, state, and local air pollution control laws and regulations. Section 118 of the Clean Air Act requires a

national park unit to meet all federal, state, and local air pollution standards. Sleeping Bear Dunes National Lakeshore is a Class II air quality area under the Clean Air Act, as amended. A Class II designation indicates the maximum allowable increase in concentrations of pollutants over baseline concentrations of sulfur dioxide and particulate matter as specified in Section 163 of the Clean Air Act. Further, the Clean Air Act provides that the federal land manager has an affirmative responsibility to protect air quality related values (including visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse pollution impacts.

Construction activities, including equipment operation and the hauling of material, could result in temporarily increased vehicle exhaust and emissions, as well as inhalable particulate matter. Construction dust associated with exposed soils would be controlled, if necessary, with the application of water or other approved dust palliatives. In addition, any hydrocarbons, nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>) emissions, as well as airborne particulates created by fugitive dust plumes would be rapidly dissipated because the location of the park and prevailing winds allows for good air circulation. Overall, there could be a local, short-term, negligible degradation of local air quality during construction activities; however, no measurable effects outside of the immediate construction site would be anticipated. Any construction-related, adverse effects to air quality would be temporary, lasting only as long as construction. Therefore, air quality was dismissed as an impact topic.

### **Ethnographic Resources**

Ethnographic resources are defined by the NPS as any “site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it” (NPS, 1998b). There are no known ethnographic resources or traditional cultural properties in the vicinity of the Port Oneida Rural Historic District. Copies of the environmental assessment will be forwarded to each tribe traditionally associated with park lands for review and comment. If the tribes subsequently identify the presence of ethnographic resources, appropriate mitigation measures would be undertaken in consultation with the tribes. The location of ethnographic sites would not be made public. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 would be followed. Because there are no known ethnographic resources within the area of potential effects, ethnographic resources was dismissed as an impact topic.

### **Archeological Resources**

Archeological resources are the material remains or physical evidence of past human life or activities. An archeological survey was completed for the Port Oneida Rural Historic District in late summer 2006. Intensive inventories were completed for the Kelderhouse, Dechow, Peter Burfiend, Eckhert, and Werner farms that focused on the residential farmstead components and any specific areas where ground disturbance might occur as part of the action alternatives. The surveys included shovel testing. No significant archeological resources were encountered during the surveys; therefore, archeological

resources has been dismissed as an impact topic. If during construction previously undiscovered archeological resources are discovered, all work in the immediate vicinity of the discovery will be halted until the resources can be identified and documented, and an appropriate mitigation strategy developed, if necessary, in consultation with the Michigan SHPO.

### **Museum Collections**

The NPS *Management Policies 2006* (2006b) and Director's Order 28, *Cultural Resource Management* (1998b) require the consideration of impacts on museum collections (historic artifacts, natural specimens, and archival and manuscript material). Because the park's museum collections would be unaffected by any of the action alternatives, museum collections was dismissed as an impact topic.

### **Land Use**

Port Oneida is comprised of a mix of open fields, natural areas, residences, cemeteries, two youth camps, transportation corridors, and hiking trails. In addition, there are several farms and two schools, one of which is unoccupied. The majority of the land is open to the public and maintained as part of the Sleeping Bear Dunes National Lakeshore. A few of the residences are privately owned, along with two youth camps, Camp Leelanau/Kohahna and the AIR Foundation. The Port Oneida schoolhouse is owned by Glen Lake school district.

The largest current land use within Port Oneida is open space characterized by former agricultural fields that are now predominately grasslands. Many of the fields have not been cultivated in recent years.

Most of the structures being considered for use as a visitor contact station for the action alternatives are currently unoccupied. The overall use and purpose of Port Oneida would not change; therefore, land use was dismissed as an impact topic.

### **Socioeconomics**

Council on Environmental Quality regulations for implementing the National Environmental Policy Act requires economic analyses of federal actions that would affect local or regional economy. The local and regional economies of this area are strongly influenced by tourism. By implementing improvements within Port Oneida, it is expected that the number of visitors within Port Oneida would increase. These improvements, however, would not draw a significant number of new visitors to the park, but would likely encourage existing park visitors to increase the number of trips to Port Oneida.

Should the proposed actions be implemented, short-term benefits from project-related expenditures and employment would include economic gains for some local businesses and individuals. While there may be slight short-term benefits to local economies, local and regional businesses would not be appreciably affected in the long term. Therefore, socioeconomics was dismissed as an impact topic.

## **Environmental Justice**

Presidential Executive Order 12898, *General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the Environmental Protection Agency, environmental justice is the

...fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

The goal of 'fair treatment' is not to shift risks among populations, but to identify potentially disproportionately high and adverse effects and identify alternatives that may mitigate these impacts.

The general vicinity of Sleeping Bear Dunes National Lakeshore contains both minority and low-income populations; however, environmental justice was dismissed as an impact topic for the following reasons:

- The staff and planning team at Sleeping Bear Dunes solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.
- Implementation of the preferred alternative would not result in any identifiable adverse human health effects. Therefore, there would be no direct or indirect adverse effects on any minority or low-income population.
- The impacts associated with implementation of the preferred alternative would not disproportionately affect any minority or low-income population or community.
- Implementation of the preferred alternative would not result in any identified effects that would be specific to any minority or low-income community.
- The park staff and planning team do not anticipate any impacts on the socioeconomic environment to appreciably alter the physical and social structure of the nearby communities.

## **Prime and Unique Farmland**

Prime farmlands are identified as land that has the best combination of physical and chemical characteristics for producing food, forage, fiber and oilseed crops (USDA, 1983). Unique farmland is land other than prime farmland that has special characteristics,

such as unique soil types and topographic features, which make it suitable for the production of specific high value crops.

Prime farmland soils and soils of local importance are present within Port Oneida; however, the land owned by the NPS is not currently farmed and is not intended for farming in the future. Furthermore, minimal alterations from construction activities would occur to the land that would impact the soils and their classification as prime or unique. Therefore, prime and unique farmland was dismissed as an impact topic.

### **Lightscape Management**

The NPS *Management Policies 2006, Section 4.10* (NPS, 2006b), directs the NPS to “preserve to the greatest extent possible, the natural lightscapes of the parks, which are natural resources and values that exist in the absence of human-cause light.” The NPS is currently developing the Night Sky Initiative to formulate a policy to protect views of the stars and planets in our national parks.

To meet this directive, overnight lighting shall not be used. The actions proposed in this environmental assessment would restrict the use of lighting to those areas where security and safety are required. Low-impact techniques would be used and shields would be installed to prevent degradation of the night sky view and avoid disruption of the physiological processes of plants and animals. The action alternatives would not be likely to affect appreciation of the night sky or interfere with activities of nocturnal creatures. For these reasons, night sky was dismissed as an impact topic for further consideration.

### **Natural Soundscapes**

NPS Director’s Order 47, *Soundscape Preservation and Noise Management* (NPS, 2000) and NPS *Management Policies 2006* (NPS, 2006b) direct NPS managers to protect, maintain, or restore natural soundscapes unimpaired by inappropriate or excessive noise. Under this directive, noise is defined as appropriate or inappropriate relative to the purpose of the park, the level of visitor services available, and to activities pursued by visitors.

Neither the No Action nor any of the action alternatives addressed in this analysis would introduce long-term inappropriate noise levels to the park. The proposed actions would largely occur in areas with an existing level of development, including highways, roads, private use, and park facilities. The temporary noise produced during construction and restoration activities would result in negligible short-term localized adverse impacts. This temporary increase in noise levels would occur primarily within existing developed areas. Therefore, natural soundscapes was dismissed as an impact topic.

### **Indian Trust Resources**

Indian trust assets are owned by American Indians, but are held in trust by the United States. Requirements are included in the Secretary of the Interior’s Secretarial Order 3206, American Indian Tribal Rites, Federal – Tribal Trust Responsibilities, the Endangered Species Act, and Secretarial Order 3175, Departmental Responsibilities for Indian Trust Resources. Secretarial Order 3175 requires that any anticipated impacts to

Indian Trust Resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes.

No Indian Trust Resources are in Sleeping Bear Dunes National Lakeshore. The lands within Sleeping Bear Dunes are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, Indian Trust Resources was dismissed as an impact topic.

### **Waste Management**

Within Port Oneida, solid waste is generated by visitors to Port Oneida, employees that use the staff housing, private land owners, and by users at the partner sites. Under the action alternatives, the amount of solid waste generated would increase as a result of increased visitation to Port Oneida. Appropriate waste disposal receptacles would be provided at the visitor contact station. Programming of activities at Port Oneida is of a limited scope and would not attract a significant increase in visitors. The increase in trash would be negligible as a result of implementing the alternatives; therefore, waste management was dismissed as an impact topic.

### **Energy Requirements and Conservation Potential**

The Council on Environmental Quality guidelines for implementing the National Environmental Policy Act require examination of energy requirements and conservation potential as a possible impact topic in environmental impact statements.

Sleeping Bear Dunes National Lakeshore strives to incorporate the principles of sustainable design and development into all facilities and park operations. Sustainability can be described as the result achieved by doing things in ways that do not compromise the environment or its capacity to provide for present and future generations. Sustainable practices minimize the short- and long-term environmental impacts of developments and other activities through resource conservation, recycling, waste minimization, and the use of energy efficient and ecologically responsible materials and techniques.

The NPS *Guiding Principles of Sustainable Design* (1993) provide a basis for achieving sustainability in facility planning and design, emphasizes the importance of bio-diversity, and encourages responsible decisions. The guidebook describes principles to be used in the design and management of visitor facilities that emphasize environmental sensitivity in construction, use of nontoxic materials, resource conservation, recycling, and integration of visitors with natural and cultural settings. The park would reduce energy costs, eliminate waste, and conserve energy resources by using energy efficient and cost effective technology wherever possible. Energy efficiency would also be incorporated into any decision-making process during the design or acquisition of facilities, as well as all decisions affecting park operations. The use of value analysis and value engineering, including a life cycle cost analysis, would be performed to examine energy, environmental, and economic implications of proposed development. Suppliers,

permittees, and contractors would be encouraged to follow sustainable practices and address sustainable park and non-park practices in interpretive programs. Consequently, any adverse impacts relating to energy use, availability, or conservation would be negligible. Therefore, energy requirements and conservation potential is an impact topic dismissed from further consideration.



## **2.0 ALTERNATIVES CONSIDERED**

A range of alternatives was evaluated to implement improvements within the Port Oneida Rural Historic District. The evaluation also included the No Action Alternative. Although the option of continuing with current management activities does not solve the need for improvements within Port Oneida, this alternative forms the basis from which all action alternatives are evaluated.

A Value Analysis workshop was held in May 2006 (NPS, 2006a) to evaluate a range of alternatives. During the Value Analysis, an interdisciplinary team analyzed the advantages and disadvantages of each design option. Several alternatives were considered and dismissed because they did not meet the project objectives or had the potential to produce an unacceptable level of adverse environmental or visitor use impacts. The alternatives dismissed from consideration are addressed in Section 2.4.

The workshop led to the identification of four action alternatives. Each action alternative is composed of several program elements including a visitor contact station, employee housing, circulation (parking, roadside pull-offs, trails, beach access), structure stabilization, and cultural landscape stabilization. There are various options for the visitor contact station, housing, and parking; however, roadside pull-offs, trails and beach access remain consistent for each alternative. The alternatives are summarized in Table 2-1.

### **2.1. ALTERNATIVE 1 – NO ACTION**

The No Action Alternative would result in the continuation of management actions and existing facility use in Port Oneida (Figure 2-1). Currently, the house at the Dechow farmstead is used for employee housing. No visitor contact station exists within Port Oneida. If visitors want information, it must be obtained from the visitor center in Empire. At this time, a map is the only publication available from NPS.

Preserve Historic Sleeping Bear is a non-profit organization with an office in the home at the Charles Olsen farmstead. Preserve Historic Sleeping Bear provides interpretive materials for Port Oneida to visitors.

No changes to circulation would occur within Port Oneida; existing conditions would be maintained. Parking facilities are currently provided at the trailheads, one at Basch Road for Pyramid Point and a second along Thoreson Road for the Bayview Trail. No new pull-offs would be provided. One existing roadside pull-off, which is operated by the county, is located along Basch Road overlooking Vacation Valley. The existing trail system would be maintained under current management, with no new connections or trailheads being provided.

Landscape stabilization and restoration, and structure stabilization would continue under current management plans. Historic field edges have been determined by study of aerial photographs and field work. Clearing of non-historic, invasive plant material from important viewsheds currently occurs on a limited basis.

Structure stabilization would continue under the current management. Currently, structures are stabilized as needed, and as funding becomes available.

**Table 2-1: Summary of Alternatives**

		Alternatives				
		1	2	3	4	5
Program Element		No Action	C. Burfiend	C. Olsen	Dechow	Kelderhouse (Preferred)
<b>Visitor Contact Station</b>	Kelderhouse					●
	Charles Olsen			●		
	Dechow				●	
	Carsten Burfiend		●			
<b>Employee Housing</b>	Carsten Burfiend					●
	Peter Burfiend		●		●	
	Goffar			●		
	Dechow	●				
<b>Pull-offs</b>	Thoreson		●	●	●	●
	M-22		●	●	●	●
	Vacation Valley		●	●	●	●
<b>Parking (6-8 cars)</b>	Carsten Burfiend			●	●	●
	Eckhert/Olsen		●	●	●	●
	Kelderhouse		●	●	●	
<b>Beach Access</b>	Carsten Burfiend	●	●	●	●	●
<b>Trails</b>	Central Corridor		●	●	●	●

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## 2.2. ACTION ALTERNATIVES

The following program elements are common to each action alternative. A house at one of the publicly owned farms would be adaptively rehabilitated for use as a visitor contact station. The visitor contact station site would include parking for 10 to 20 cars, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would include internal and external interpretive graphics, a staff desk, and storage. Informational and orientation materials would also be provided. A second house, also at a publicly owned farmstead, would be adaptively rehabilitated for use as staff housing. These houses would be rehabilitated in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (NPS, 1983).

Rehabilitation at the visitor contact station would include rehabilitation of exterior and interior features and spaces; historically sensitive modifications to meet functional requirements; modern mechanical, electrical and plumbing systems; and accessibility for disabled individuals, as needed. At the house to be rehabilitated for use as park staff housing, work would include exterior restoration; interior rehabilitation and historically sensitive interior modifications to accommodate tenants; and modern mechanical, electrical and plumbing systems to permit year-round occupancy, as needed.

Circulation throughout Port Oneida would be enhanced by providing (1) additional parking for 6 to 8 cars, (2) roadside pull-offs, (3) an improved trail system, and (4) landscape stabilization throughout Port Oneida. The location for the parking areas vary based on the location of the visitor contact station.

Roadside pull-offs would be located in three locations: overlooking the Thoreson farm on Thoreson Road, on the north side of M-22 between Port Oneida Road and Wheeler Road, and at the existing county roadside pull-off on Basch Road.

Landscape stabilization work in Port Oneida includes the maintenance of open field areas along the M-22 (Werner, Charles Olsen, Dechow and Lawr farms) and Port Oneida Road (Kelderhouse and Carsten Burfiend farms) corridors by the clearing of invasive trees and shrubs from open fields, windbreaks and pine plantations. Field edges and boundaries that are important to the character of Port Oneida have been determined through the study of aerial photographs and field verification. This treatment is intended to reestablish and preserve the overall patterns of open fields and woodlands, and preserve prominent views.

The visitor contact station sites were paired with the staff housing sites based on the results of the value analysis workshop, and the objective to have two staffed facilities at two separate locations in Port Oneida. The final pairings will be determined based on comments received during the environmental review process.

### **2.2.1 Alternative 2 – Carsten Burfiend**

This alternative would use the Carsten Burfiend farm located on Port Oneida Road as the site for the visitor contact station (Figure 2-2). Two homes exist at the farmstead on the west side of Port Oneida Road along with a garage and a privy (Figure 2-3). Several outbuildings are located on the east side of the road, including a chicken coop, machine shed, granary/corn crib, and butchering shed. Parking for six to eight cars is located off of Port Oneida Road north of the entrance drive to the farm.

The visitor contact station site would include parking for 10 to 20 cars, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would be located in the north house and would include internal and external interpretive graphics, a staff desk, and storage. Informational and orientation materials would also be provided. Restrooms would likely be located in the garage. Figure 2-3 illustrates a concept for the visitor contact station at this farm. Landscape work at the visitor contact station site includes the restoration of ornamental foundation plantings, sugar maple plantings, and windbreaks. Other work includes reconstruction of fencing along historic fence lines, and the restoration of paths and concrete sidewalks. Views of Lake Michigan would be restored by selective thinning of plant material along the forested bluff.

In this alternative, staff housing would be located at the Peter Burfiend farm located on Basch Road (Figure 2-2). Use of the second house at the Carsten Burfiend farm was considered for employee housing, but project objectives emphasize having two separate staffed sites in Port Oneida. Additionally, employee housing would affect the visitor experience in this alternative. The Peter Burfiend house totals 1,660 square feet and has three bedrooms and one bath. The house would be adaptively rehabilitated as a housing site for park staff.

Circulation within Port Oneida would be enhanced by providing additional parking for 6 to 8 cars in the vicinity of the Eckhert and Ole Olsen farms on Basch Road and at the Kelderhouse farm on Port Oneida Road (Figure 2-2), roadside pull-offs, and an improved trail system.

The north house at the Carsten Burfiend farmstead would be adaptively rehabilitated for use as the visitor contact station. The Peter Burfiend house, to be used as housing, would be adaptively rehabilitated for its new use as staff housing. Other structures throughout Port Oneida would also be stabilized. The selection of structures for stabilization would be made at the discretion of the Sleeping Bear Dunes staff.

### **2.2.2 Alternative 3 – Charles Olsen**

This alternative would use the Charles Olsen farm, located along M-22, as the site for the visitor contact station (Figure 2-4). The Charles Olsen farmstead consists of a home and a barn. Preserve Historic Sleeping Bear, a non-profit organization, has rehabilitated the home and is using it for their offices. Preserve Historic Sleeping Bear has installed basic exhibits, and has developed plans and secured partial funding for additional exhibits, to

Figure 2-2: Alternative 2 – Carsten Burfiend

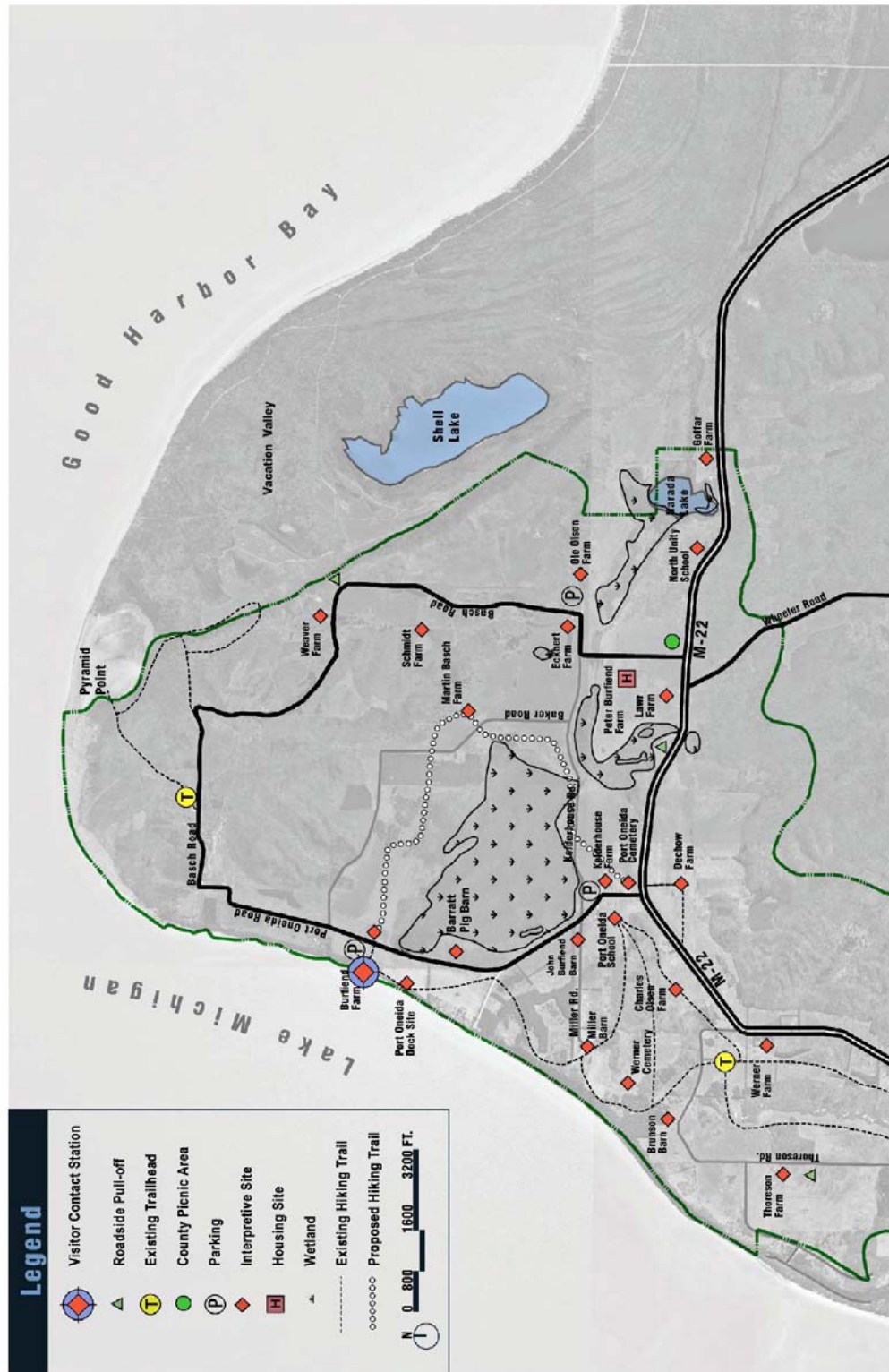
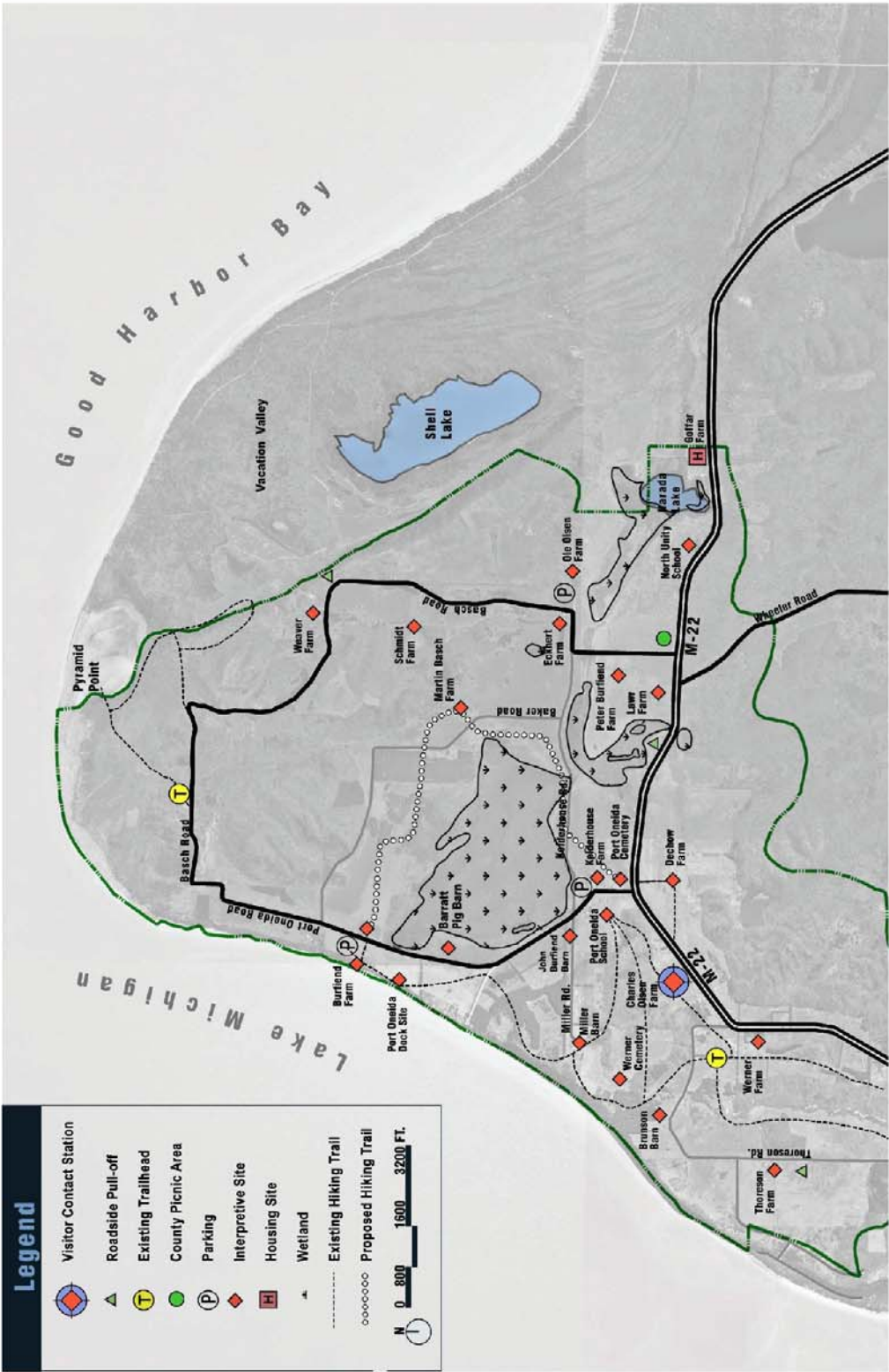




Figure 2-3: Burfiend Visitor Contact Station Concept



Figure 2-4: Alternative 3 – Charles Olsen





interpret the history of Port Oneida. Elements at the visitor contact station site that are common to all action alternatives include parking for 10 to 20 cars, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would be located in the house and would provide internal and external interpretive graphics, staff desk, storage, and informational and orientation materials. Restrooms would likely be located in the lean-to at the south end of the barn. Figure 2-5 illustrates a concept for the visitor contact station at this farm.

Landscape work at the visitor contact station site (Charles Olsen farm) includes the restoration of ornamental shrub plantings, sugar maple plantings, and windbreaks. Other work includes reconstruction of fencing along historic fence lines, and the restoration of paths, drives and concrete sidewalks. Views to the Charles Olsen barn and house would be restored by the thinning and selective removal of plant material in fields approaching the farm.

In this alternative, staff housing would be located at the Goffar farm (Figure 2-4). This home is currently under a reservation of use and occupancy that will expire in 2011. This 2,100 square foot house has four bedrooms and two baths. The house would be adaptively rehabilitated for its new use as staff housing. As with the other action alternatives, circulation within Port Oneida would be enhanced by providing additional parking, roadside pull-offs, and an improved trail system. New parking (6 to 8 cars) would be provided in the vicinity of the Eckhert and Ole Olsen farms on Basch Road, at the Kelderhouse farm on Port Oneida Road, and at the Carsten Burfiend farm on Port Oneida Road (Figure 2-4).

The Charles Olsen house has been stabilized previously, so no stabilization is necessary as part of this alternative. The Charles Olsen barn would be stabilized as part of the site's rehabilitation for its intended new use. The Goffar house, which would be used as housing in this alternative, would be stabilized as part of its rehabilitation for its intended new use. Additional structures would receive treatments of stabilization or higher treatments as part of this alternative. The park staff would determine which structures need to be stabilized during project implementation.

### **2.2.3 Alternative 4 – Dechow**

Under this alternative, the visitor contact station site would be located at the Dechow farm on M-22 at the intersection with Port Oneida Road (Figure 2-6). The Dechow farmstead consists of a house, barn, garage, granary, brooder house, and chicken coop (Figure 2-6). Currently, the house at Dechow farmstead is being used for employee housing. Consistent with the other action alternatives, the visitor contact station site would include parking for 10 to 20 cars, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would be located in the house and would include internal and external interpretive graphics, a staff desk, and storage. Restrooms would likely be located in the garage located adjacent to the dairy barn. Informational and orientation materials would also be provided. Figure 2-7 illustrates a concept for the visitor contact station at this farm.

Figure 2-5: Olsen Visitor Contact Station Concept

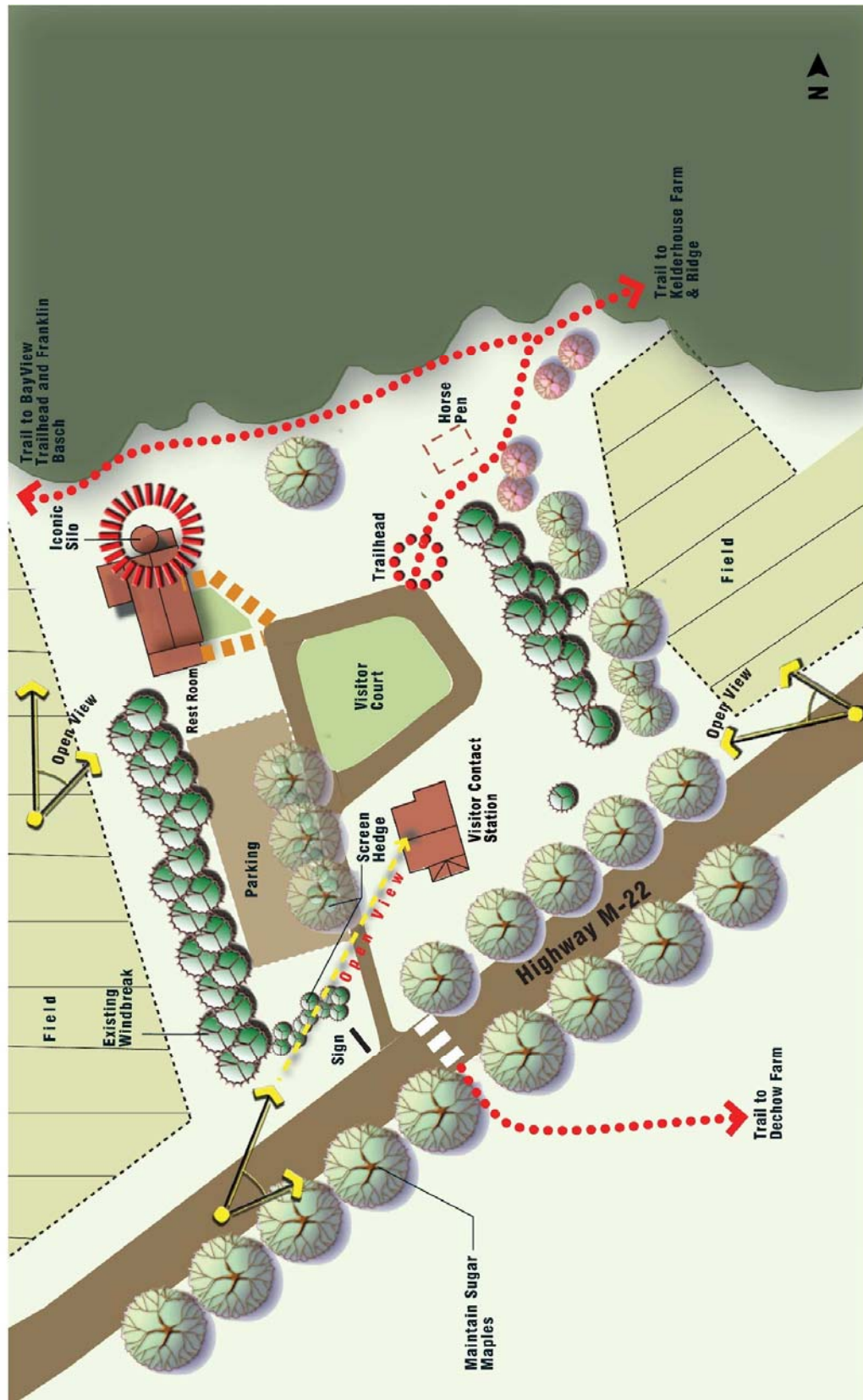


Figure 2-6: Alternative 4 – Dechow

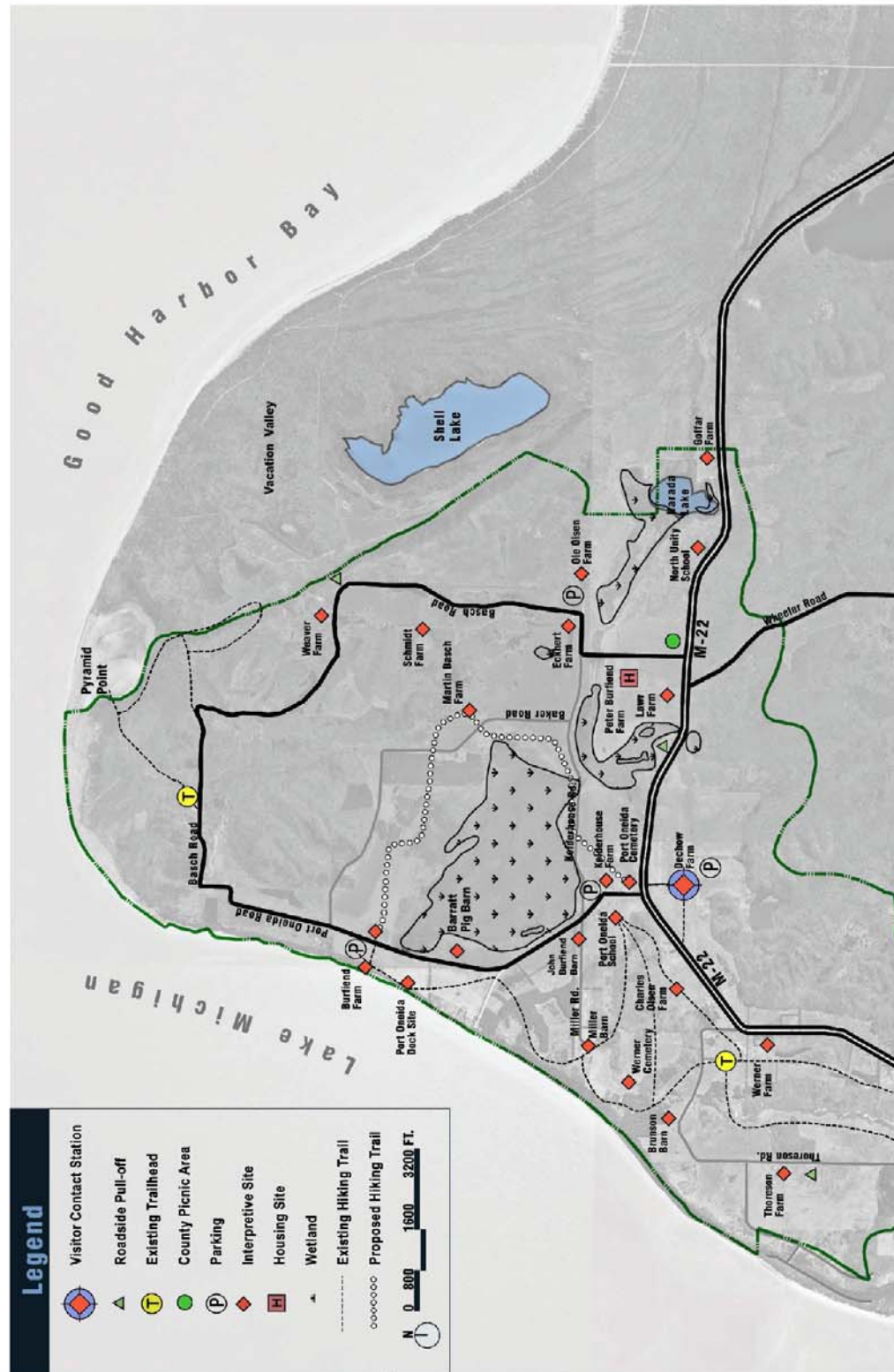
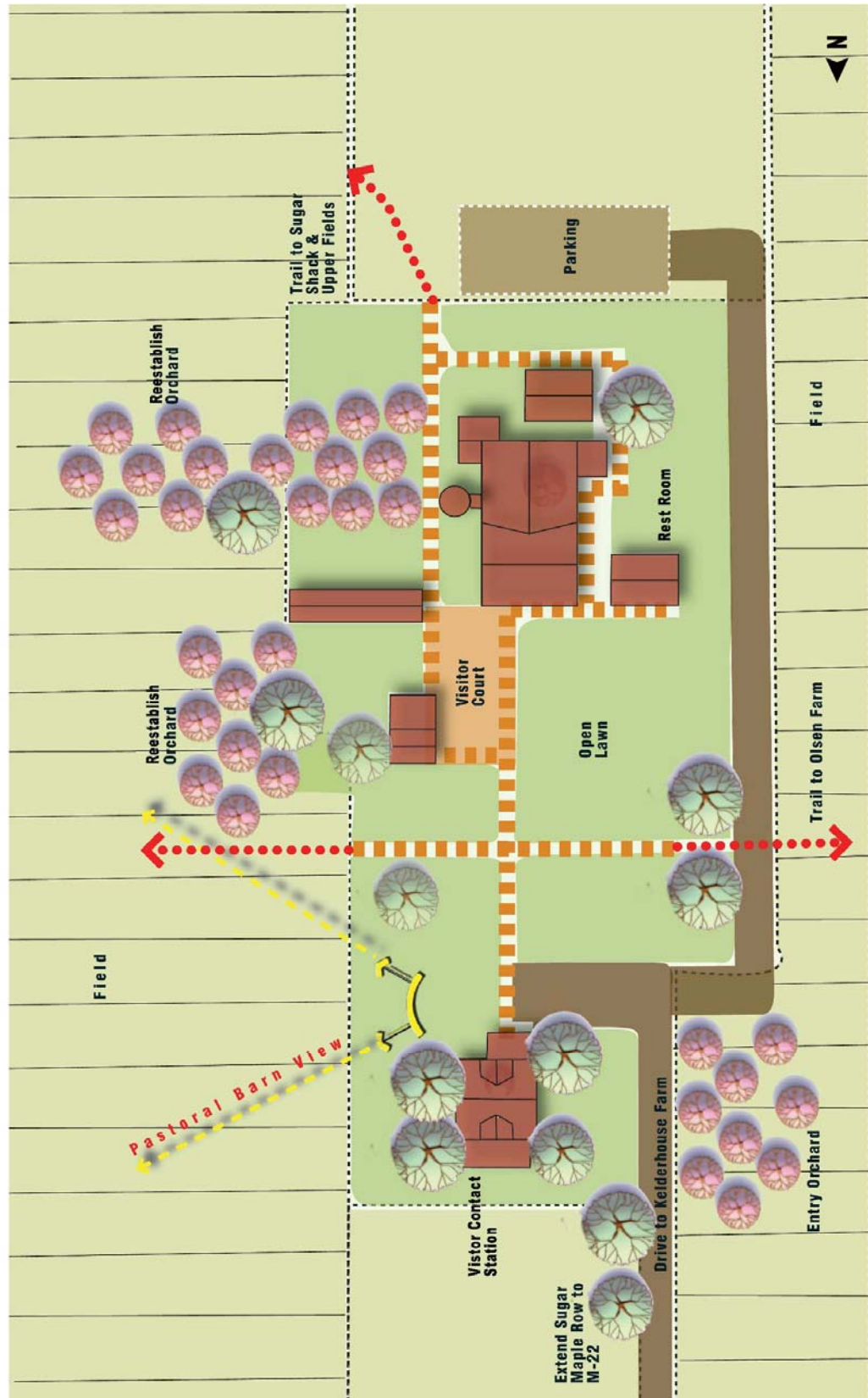


Figure 2-7: Dechow Visitor Contact Station Concept





Landscape work at the visitor contact station site includes the restoration of orchard plantings and ornamental shrub plantings. Other work includes restoration or reconstruction of fences, and the restoration of paths, drives and concrete sidewalks within the farmstead area.

In this alternative, staff housing would be located at the Peter Burfiend farmstead. This 1,660 square foot house has 3 bedrooms and one bath. The house would be adapted to serve as housing for park staff.

As with the other action alternatives, circulation within Port Oneida would be enhanced by providing additional parking, roadside pull-offs, and an improved trail system. New parking (6 to 8 cars) would be provided in the vicinity of the Eckherth and Ole Olsen farms on Basch Road, at Kelderhouse farm on Port Oneida Road, and at Carsten Burfiend farm on Port Oneida Road (Figure 2-6).

The Dechow house has been stabilized previously, so no stabilization would be required as part of this alternative. The Peter Burfiend house, which would be used as housing in this alternative, would be stabilized as part of its rehabilitation for its intended new use. Other structures would receive treatments of stabilization or higher treatments as part of this alternative. The selection of structures for stabilization would be made at the discretion of the Sleeping Bear Dunes staff.

#### **2.2.4 Alternative 5 – Kelderhouse (Preferred Alternative)**

This alternative would use the Kelderhouse farm located on the east side of Port Oneida Road just north of M-22 for the visitor contact station (Figure 2-8). This farmstead consists of a home and four outbuildings: chicken coop, two sheds, and a privy. Consistent with the other action alternatives, the visitor contact station site would include parking for 10 to 20 cars, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would be located in the house and would include internal and external interpretive graphics, a staff desk, and storage. Informational and orientation materials would also be provided. Restrooms would likely be located in one of the outbuildings. Figure 2-9 illustrates one concept for the visitor contact station at this farm.

Landscape work at the visitor contact station site includes the restoration of orchards, ornamental shrub plantings, sugar maple rows, and windbreaks. Other work includes restoration or reconstruction of fences, and the restoration of paths, drives and concrete sidewalks.

In this alternative, staff housing would be located at the Carsten Burfiend farmstead. There are two homes located at the farmstead, one near the access drive and one located just to the south of the garage (Figure 2-3). Housing would be provided in one of the two homes, but more likely in the home to the south to provide more privacy for the residents. This house is 2,700 square feet with five bedrooms and one bathroom. It would be adapted to serve as housing for park staff.

Figure 2-8: Alternative 5 – Kelderhouse

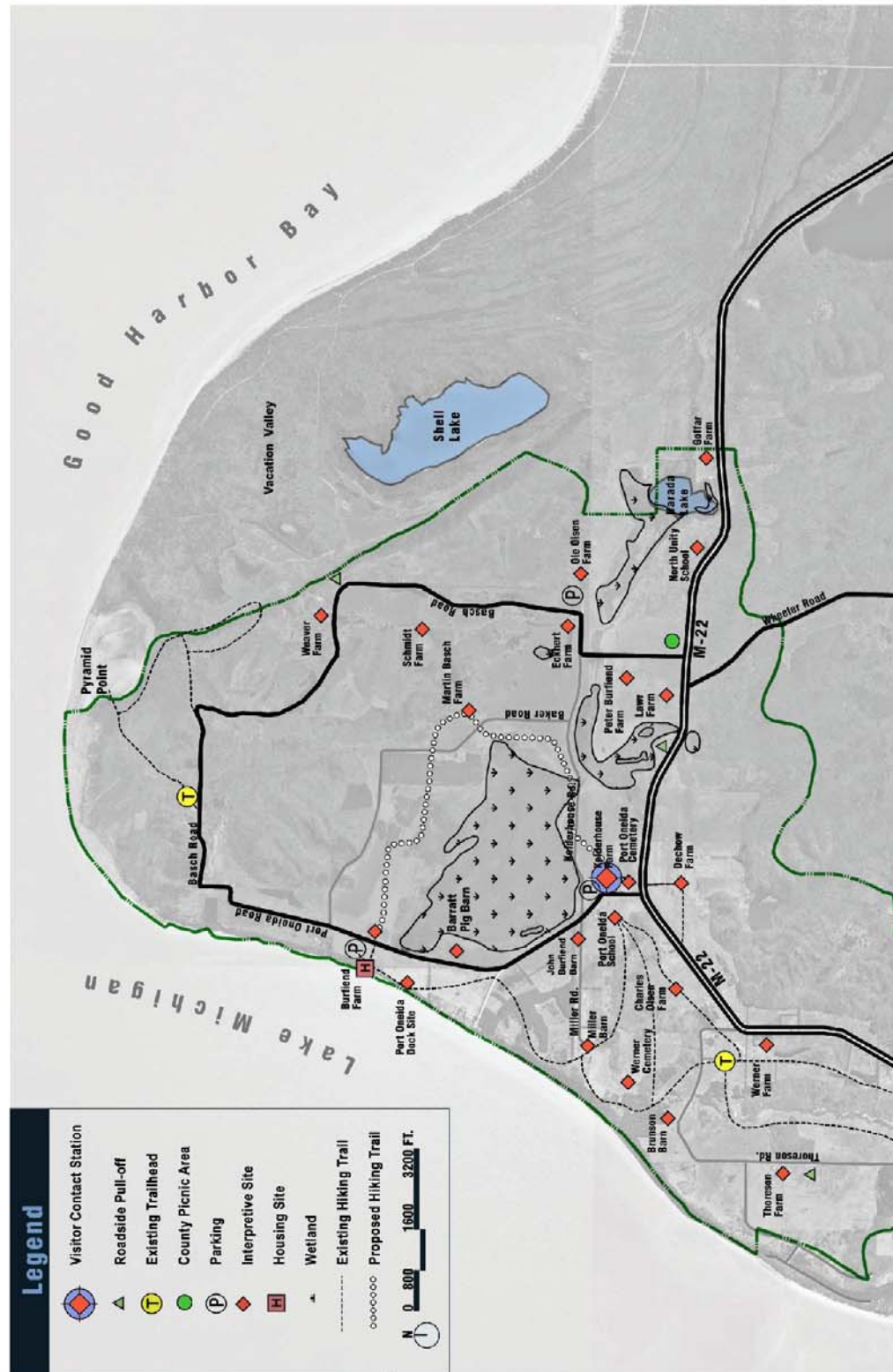
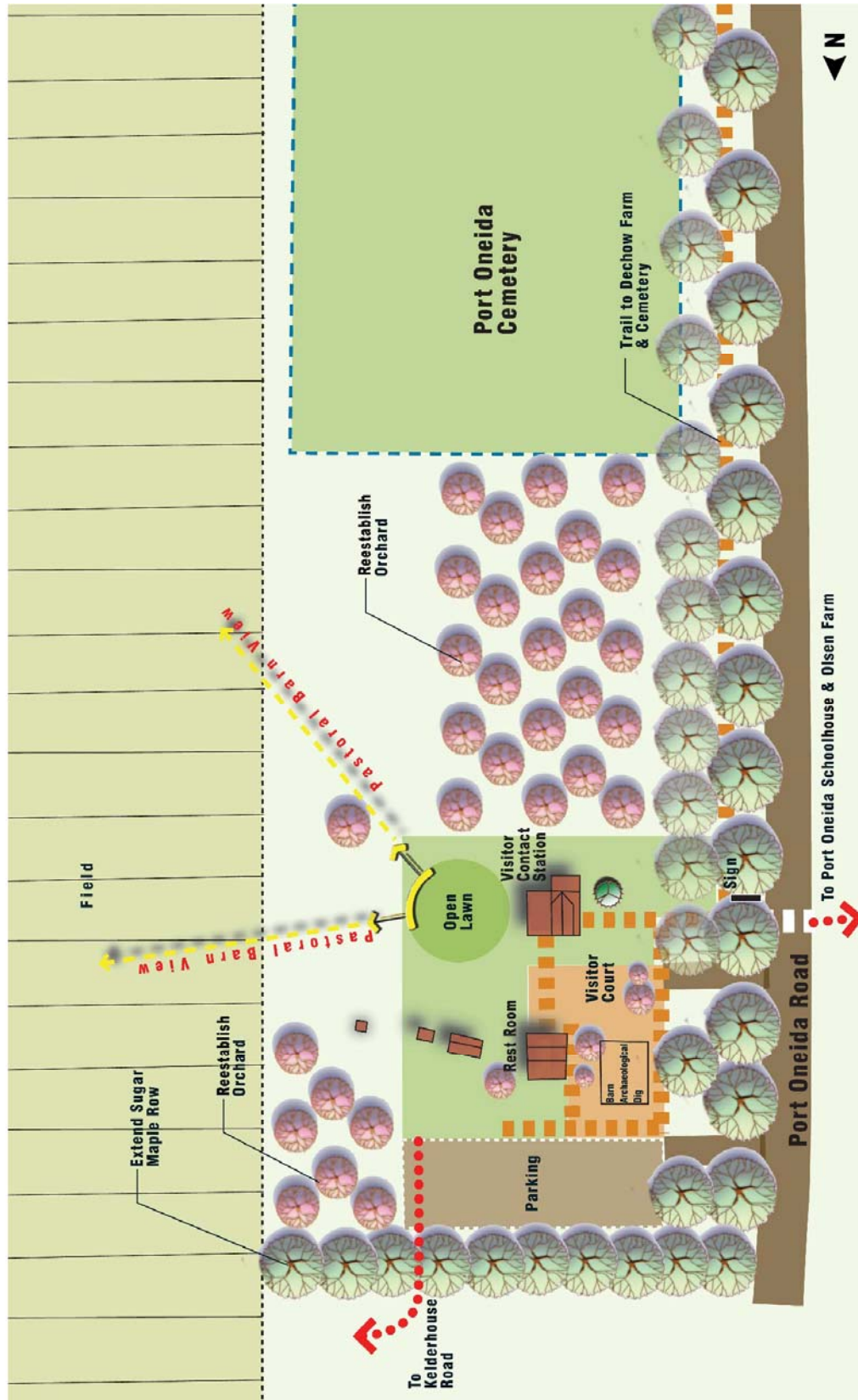


Figure 2-9: Kelderhouse Visitor Contact Station Concept



As with the other action alternatives, circulation within Port Oneida would be enhanced by providing additional parking, roadside pull-offs, and an improved trail system. New parking (6 to 8 cars) would be provided in the vicinity of the Eckhert and Ole Olsen farms on Basch Road and at Carsten Burfiend farm on Port Oneida Road (Figure 2-8).

The Kelderhouse house would be stabilized, as part of the site's rehabilitation for its intended new use. One of the two houses at the Carsten Burfiend farmstead, which would be used as housing in this alternative, would be stabilized as part of its rehabilitation for its intended new use.

Additional structures within Port Oneida would receive treatments of stabilization or higher treatments as part of this alternative. The selection of structures for stabilization would be made at the discretion of the Sleeping Bear Dunes staff.

## **2.3 MITIGATION MEASURES**

The action alternatives would predominantly result in beneficial effects. In areas where there is potential for adverse effects, the following mitigation measures are proposed.

- In areas of new mowing or grading, monitoring would occur for invasive vegetation or exotic species.
- In areas of new grading, restore adjacent areas with appropriate species.
- If during construction previously unknown archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed, if necessary, in consultation with SHPO. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 would be followed. All human remains, funerary objects, sacred objects, or objects of cultural patrimony would be left in situ until the culturally affiliated tribe(s) was consulted and an appropriate mitigation or recovery strategy developed.

## **2.4 ALTERNATIVES CONSIDERED AND DISMISSED**

An analysis of all design options led to the dismissal of several alternatives. These alternatives included components that failed to meet the project objectives or actions that generated unacceptable levels of resource impacts. The nature of the dismissed alternatives and the rationale for their rejection follows.

There are 14 farms, four barns, and one school within Port Oneida that are owned by NPS. In order for one of these sites to qualify for use as a visitor contact station, it needs to have more than one structure on the site, and to be used for staff housing, it needs to have a residence; otherwise, the site would be technically or economically infeasible.



Based on this, the school and four barn sites were eliminated for consideration as a visitor contact station or as staff housing.

The remaining farms were carried forward for further evaluation. Partner occupied sites were considered for visitor contact stations, but were not considered for staff housing. It was agreed that the visitor contact station should be located near the core of Port Oneida in order to meet the project objectives. Furthermore, if a site was considered as having potential as an interpretive program site, it was eliminated as a housing site because this would conflict with the potential use. In order for a site to be carried forward for staff housing, it needed to meet a minimum size; otherwise, it would not be technically or economically feasible. These criteria, along with a field reconnaissance and coordination with park employees, allowed for the elimination of additional farms from further consideration.

Thoreson farm: This farm is currently being used as a partner site and thus was eliminated as an alternative for staff housing. It is located too far from the core of Port Oneida (M-22 and Port Oneida Road) and was also eliminated as an alternative for a visitor contact station.

Weaver farm: This farm is in poor condition and would not be suitable for rehabilitation as a visitor contact station site or housing. The poor condition of the farm makes it technically and economically infeasible for restoration at this time.

Schmidt farm: This farm is too remote for a visitor contact station and the residence is too small for staff housing.

Ole Olsen farm: This farm is too remote for a visitor contact station and the residence is too small for staff housing.

Martin Basch farm: This farm is too remote for a visitor contact station. In addition, this farm is within proposed wilderness and could not currently be used for housing, or for a visitor contact station, because of the impacts to the wilderness values of naturalness and solitude.

Eckhart farm: This farm is located too far from the core of Port Oneida to be considered for a visitor contact station. It presents an excellent opportunity for an interpretive program site and, consequently, was dismissed as a potential housing site.

Werner farm: This farm was dismissed as a visitor contact station due to its distance from the core of Port Oneida and safety issues with ingress and egress from the site onto M-22. The residence is too small for staff housing, and the farm presents an excellent opportunity for an interpretive program site; consequently, this alternative was dismissed as a housing site.

Peter Burfiend farm: This farm is located too far from the core of Port Oneida to be used for a visitor contact station.

Goffar farm: This farm is located too far from the core of Port Oneida to be used for a visitor contact station.

Lawr farm: This farm was dismissed as a visitor contact station because of its location too far from the core of Port Oneida. Ideally, visitors to Port Oneida coming from the visitors center in Empire should encounter the visitor contact station near M-22 and Port Oneida Road. The Lawr farm would not be encountered until after they have passed through the core of Port Oneida. This is not an ideal location for capturing visitors entering Port Oneida. Lawr farm, which was previously used a partner site, is better suited as a partner site or interpretive program site and was not considered for staff housing.

The Peter Burfiend and Goffar farms, however, have a residence of an appropriate size that would make them suitable for staff housing; therefore, these farms were carried forward as staff housing alternatives.

Charles Olsen and Kelderhouse are being evaluated as a visitor contact station. The Kelderhouse farm is more suitable for an interpretive program site, and therefore is eliminated as a housing site. The Charles Olsen farm is currently being used as a partner site and therefore is eliminated as a housing site. The Dechow farmstead, is currently being used for housing and is considered as the No Action Alternative for housing.

## **2.5 ENVIRONMENTALLY PREFERRED ALTERNATIVE**

As stated in Section 2.7D of Director's Order 12 and Handbook (NPS, 2001), the environmentally preferred alternative is the alternative that would promote the national environmental policy expressed in the National Environmental Policy Act.

Section 101(b) of the National Environmental Policy Act identifies six criteria to help determine the environmentally preferred alternative. The act directs that federal plans should:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- Achieve a balance between population and resource use that will permit high standards of living and wide sharing of life's amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Generally this means the alternative that causes the least damage to the biological and physical environment. It also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources (CEQ, 1981).

Continuing the current conditions under Alternative 1, the No Action Alternative, the NPS would fail to preserve several historic resources. Structure and landscape stabilization would only minimally occur as needed. Historic structures in Port Oneida would continue to be at risk from deterioration due to lack of maintenance and stabilization. The cultural landscapes would also be at risk from invasive species and vegetation encroachment.

Alternative 2, Carsten Burfiend farm, would provide a visitor contact station at the Carsten Burfiend farm with housing at the Peter Burfiend farm. Alternative 2 would require a higher level of operations and maintenance than the other alternatives because of the security requirements from the combination of a visitor contact station and beach access at the same site.

Alternative 3, Charles Olsen farm, would provide a visitor contact station at the Charles Olsen farm and housing at the Goffar farm. This alternative would place the visitor contact station at a farm where the house has already been rehabilitated for a partner site. Placing a 10- to 20-space car parking lot at a highly visible location along M-22 would be a minor adverse visual quality impact to Port Oneida.

Alternative 4, Dechow farm, would provide a visitor contact station at the Dechow farm and housing at the Peter Burfiend farm. The residence at the Dechow farmstead is currently being used for housing and has already undergone rehabilitation for these purposes. Placing a 10- to 20-space car parking lot at a highly visible location along M-22 would be a minor adverse visual quality impact to Port Oneida.

Alternative 5, Kelderhouse farm, fully addresses the six criteria and meets the park's objectives to stabilize historic structures and cultural landscapes, enhance visitor access to interpretive and recreational opportunities, and be consistent with current park planning documents. This alternative would provide a visitor contact station at the Kelderhouse farm and housing at the Carsten Burfiend farm. This alternative would rehabilitate structures at two of the predominant farms in Port Oneida.

Alternatives 2, 3, 4, and 5 would all provide for a new visitor contact station, new employee housing, improved circulation, rehabilitation of historic structures, and the stabilization of cultural landscapes. However, Alternative 5 would result in beneficial effects as a result of rehabilitating structures at two predominant farms. Overall, Alternative 5 provides the highest level of enhancement of cultural resources with the least damage to resources in Port Oneida and is the environmentally preferred alternative.

## 2.6 COMPARISON OF ALTERNATIVES

Table 2-2 compares each project alternative and provides a summary of the potential effects by impact topic.

**Table 2-2: Comparison of Impacts to the Alternatives**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5 (Preferred)</b>
	<b>No Action</b>	<b>Carsten Burfiend</b>	<b>Charles Olsen</b>	<b>Dechow</b>	<b>Kelderhouse</b>
<b>Ecological Resources</b>	The continued spread of invasive species combined with the impact on wildlife habitat would result in localized long-term minor adverse impacts.	The limited displacement of old field wildlife species and the potential for introduction of invasive species along mowed trails would result in long-term minor adverse impacts.	The potential for introduction of invasive species along mowed trails would result in long-term minor adverse impacts.	The potential for introduction of invasive species along mowed trails would result in long-term minor adverse impacts.	The potential for introduction of invasive species along mowed trails would result in long-term minor adverse impacts.
<b>Cultural Resources: Landscapes</b>	This alternative would result in long-term minor adverse impacts.	This alternative would result in long-term negligible adverse impacts.	This alternative would result in long-term minor adverse impacts.	This alternative would result in long-term minor adverse impacts.	This alternative would result in long-term negligible adverse impacts.
<b>Cultural Resources: Structures</b>	The continuation of minimal stabilization of structures would result in a long-term moderate adverse impact.	The stabilization of structures would result in a long-term moderate beneficial effect.	The stabilization of structures would result in long-term moderate beneficial effects.	The stabilization of structures would result in long-term moderate beneficial effects.	The stabilization of structures would result in long-term moderate beneficial effects.
<b>Visitor Use and Experience</b>	The continued lack of visitor facilities would result in long-term minor adverse impacts.	An enhanced visitor experience would result in long-term moderate beneficial effects.	An enhanced visitor experience would result in long-term moderate beneficial effects.	An enhanced visitor experience would result in long-term moderate beneficial effects.	An enhanced visitor experience would result in long-term moderate beneficial effects.
<b>Park Facilities and Operation</b>	The No Action Alternative would result in long-term minor adverse effects.	An increase in required operation and maintenance would result in long-term minor to moderate adverse effects.	An increase in required operation and maintenance would result in a long-term minor adverse effect.	An increase in required operation and maintenance would result in a long-term minor to moderate adverse effect.	An increase in required operation and maintenance would result in a long-term minor adverse effect.

Table 2-3 compares and contrasts whether each alternative accomplishes the purpose or fulfills the need identified in the purpose and need section.

**Table 2-3: Project Objectives by Alternative**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5 (Preferred)</b>
	<b>No Action</b>	<b>Carsten Burfiend</b>	<b>Charles Olsen</b>	<b>Dechow</b>	<b>Kelderhouse</b>
Stabilize and rehabilitate historic structures and cultural landscapes.	Historic structures in Port Oneida would continue to be at risk from deterioration, lack of maintenance and stabilization.	Alternative 2 would fully address this issue.	Alternative 3 would fully address this issue.	Alternative 4 would fully address this issue.	Alternative 5, the Preferred Alternative, would fully address this issue.
Provide a visitor contact station, recreational opportunities, and improved circulation.	Continuing the current management would not address this issue.	Alternative 2 would fully address this issue.	Alternative 3 would fully address this issue.	Alternative 4 would fully address this issue.	Alternative 5, the Preferred Alternative, would fully address this issue.
Provide employee housing within Port Oneida.	Employee housing would remain at the Dechow farm, which would address this issue.	This issue would be addressed by providing employee housing at the Peter Burfiend farm.	This issue would be addressed by providing employee housing at the Goffar farm.	This issue would be addressed by providing employee housing at the Peter Burfiend farm.	This issue would be addressed by providing employee housing at the Carsten Burfiend farm.

### **3.0 SITE HISTORY SUMMARY**

Port Oneida was a small, closely-knit farming community that was founded in the early 1860s primarily by immigrants from Germany (Hanover) and Prussia. Initially, it was a logging community, with small farms cultivated by homesteaders. Agricultural production in the area from the earliest years focused on a variety of grain crops that were used to support small herds of livestock, usually dairy cattle. Potatoes, corn, fruit trees and garden vegetables were cultivated for use by the families. This trend continued into the 20<sup>th</sup> century. Following the demise of logging, residents turned to farming as the primary source of income. Throughout its history, some residents of Port Oneida fished to feed their families and supplement their incomes.

The period of significance for the Port Oneida Rural Historic District ranges from 1870 to 1945. This period spans the approximate date from which agricultural features associated with the first generation European-American settlers existed to the approximate point at which the farming economy had begun to decline and the agricultural technology peaked. The following sections provide a historic context for the major periods of development in Port Oneida: pre-settlement, early settlement, logging, agriculture, and Sleeping Bear Dunes National Lakeshore.

#### **3.1. PRE-SETTLEMENT**

Human occupancy of the Leelanau Peninsula began at approximately 9000 B.C., the time of the glaciers' last retreat. While little data exists about prehistoric or early historic activity in the Port Oneida area, it is generally thought that both aboriginal people and later European-American settlers initially were attracted to the region by abundant natural resources, such as its fisheries and forests. European occupancy on the mainland was preceded by occupancy on North and South Manitou Islands, primarily because of steamship traffic through the Manitou Straits. Later, because of the longer growing season provided by the lake effect, the shoreline portion of the peninsula was the site of early agricultural development.

#### **3.2. EARLY SETTLEMENT (1852-1862)**

Significant impacts on the Port Oneida landscape occurred with the arrival of European-American settlers in the mid-19th century. Port Oneida's first European residents arrived in 1852, after Michigan's inland was opened to settlement. The earliest residents, Carsten and Elizabeth Burfiend, purchased 275 acres on the west side of the peninsula near Pyramid Point. Carsten worked as a fisherman and ferried early settlers between the mainland and North and South Manitou Islands, while Mrs. Burfiend cared for their growing family. They were joined by other migrants from Hanover, including Frederick and Margaret Werner in 1855, and Frederick and Fredericka Dechow in 1857. By 1860, the population of what would soon become known as Port Oneida had grown to 87 people, many from Germany (Hanover) and Prussia.

Between 1860 and 1865, at least 15 land claims were entered - 12 under the Preemption Act of 1841 and four under the Homestead Act of 1862. Parcels claimed under the Preemption Act ranged from six to 160 acres, and those under the Homestead Act from 20 to 120 acres. As part of the improvements required by the Preemption and Homestead Acts, farmers cleared land, constructed dwellings and developed farmsteads.

### **3.3. LOGGING (1862–1890)**

The arrival of Thomas Kelderhouse in 1861 signified a turning point in Port Oneida's growth as a community. Kelderhouse, originally of Albany, New York, was responsible for much of the settlement's initial economic development related to logging. In 1861, he struck a deal with Carsten Burfiend: he would build a dock if Burfiend would provide the land for a port, which comprised 177 acres of shoreline property. By 1862, the dock was built and Kelderhouse had moved to a settlement near the dock that was given the name Port Oneida. The community was named for the SS Oneida, one of the first steamships to stop at the dock.

With completion of the dock, the mainland's extensive forest could be harvested and sold. Kelderhouse continued his land acquisition and built a sawmill to process the harvested trees into cordwood for sale to the passing ships. Over the next 25 to 30 years Port Oneida grew to include a blacksmith shop, a boarding hotel, a general store/post office, two barns and the Kelderhouse residence. Most of these structures were owned by the Kelderhouse family, as was approximately half the land in this shoreline area, which has generally become known as Pyramid Point.

### **3.4. AGRICULTURE (1890-1970)**

Logging provided a relatively-short lived economic foundation for the community, but the affects of resource extraction altered the immediate landscape for generations. By the 1890s, the Pyramid Point area had been almost completely deforested and most Great Lakes steamships were now coal burning rather than wood burning. As a result, the community's economic base disappeared. Soon the community took advantage of the logging legacy – the cleared land allowed the second generation of settlers to expand their agricultural operations. By the turn of the century, most Port Oneida individuals and families were purchasing land outright and supporting themselves through subsistence farming.

By 1908, the dock and all the buildings at the original Port Oneida town site were abandoned with the exception of the Kelderhouse residence. The social center then shifted approximately three-quarters of a mile inland to the intersection of Port Oneida Road and M-22, the current site of the Port Oneida schoolhouse and the Port Oneida cemetery. By 1952, nearly all built features related to the logging era had disappeared.

From the turn of the century until 1945, Port Oneida existed as a subsistence level farming community dedicated to raising dairy cattle and cultivating a variety of grain crops. From the end of WWII until 1970, farming constituted a secondary form of income

for most of the community's residents. Non-farming jobs were the primary means of support, and agricultural activities occurred seasonally, after working hours or on weekends. A small number of residents left the area entirely and others leased their land to neighbors who were still farming. The number of farms was reduced with a simultaneous increase in the acreage of successful farms. From the 1950s to 1970, several families sold to land speculators and then left the area; others remained in Port Oneida, but found year-round employment in nearby towns or cities. Some residents returned on a seasonal basis, using their farms as vacation homes.

### **3.5. SLEEPING BEAR DUNES NATIONAL LAKESHORE (1970-PRESENT)**

In 1970, Sleeping Bear Dunes National Lakeshore was designated by Congress, and all of Port Oneida was included within its boundaries. The 1979 *General Management Plan* recognized that portions of Port Oneida were likely to remain in private ownership. Since that time, however, some of the private landowners have chosen to sell their property to the NPS. Currently there are 14 farms and 4 barns under federal ownership.

The Port Oneida Rural Historic District was added to the National Register of Historic Places in 1997.



## **4.0 SUMMARY OF CULTURAL LANDSCAPE CHARACTERISTICS AND FEATURES**

### **4.1. LANDSCAPE SIGNIFICANCE**

Port Oneida is a rural historic district, listed on the National Register of Historic Places that began as a small port community on the shore of Lake Michigan and later evolved into a subsistence level agricultural community. Its period of significance is from 1870 to 1945, representing the approximate date from which agricultural features associated with the first generation settlers are extant to the approximate point at which the farming economy began to decline after the peak of agricultural productivity in Port Oneida.

Port Oneida is significant for its agricultural and built landscape that reflects the general settlement patterns of its Northern European immigrants. The significance of Port Oneida lies in its ability to convey the land use patterns that resulted from the farming activities and cordwood operations of these settlers. Most notable is Port Oneida's characteristic pattern of wooded ridges contrasted by its low, open agricultural fields that are dotted with the small building clusters of its individual farmsteads. Even though the fields in Port Oneida are no longer cultivated or grazed as they were historically, they continue to reflect their historic use. The overall lack of modern intrusions in the building clusters adds to the historic character of Port Oneida.

The NPS manages more than 90 structures within the 14 farms, 4 barns, and one school owned by the NPS in the Port Oneida Rural Historic District. These structures convey the architectural styles of the area's early German and Prussian immigrants and reflect the array of activities that were commonplace in the community. The farm buildings are simple, but skillfully crafted, reflective of a collective cultural heritage in their similar architectural styles, construction methods, and decorative elements, such as spirit symbols. The practice of arranging structures to form a courtyard or farm yard is evident in the building clusters at many farmsteads.

### **4.2. LANDSCAPE CHARACTERISTICS**

Landscape characteristics are those tangible and intangible attributes of the Port Oneida Rural Historic District and its individual farms that collectively define the historic character of Port Oneida. The analysis of these characteristics provides an understanding of the features and qualities that should be preserved or enhanced to protect the historic landscape. The analysis for Port Oneida focuses on seven landscape characteristics that include setting; land use; spatial organization and topography; circulation; buildings, structures, and small-scale features; vegetation; and views. *Farming at the Water's Edge* (McEnaney, *et. al.*, 1995) provides a basis for this analysis.

#### **Setting**

The development of Port Oneida was directly associated with the physical qualities of its natural systems and features. Lake Michigan and the glacial landscape of moraines, bluffs and bays largely influenced its agricultural development. Hilltops were utilized for

orchards. The forested hillsides were utilized for cordwood logging and woodlots to provide a fuel source and building materials. The broad, low-lying former glacial meltwater channel in the center of Port Oneida and level areas near the shoreline were transformed into fields and pastures for crop production and grazing. The adjacency to Lake Michigan provided a significant climatic influence. The lake effect retained heat in the summer, providing a warmer climate that extended into the fall, delaying the first frost and allowing farmers to grow apples and other fruits for a few weeks past those of farmers located further inland. The European settlers relied heavily on the lake for both fishing and transportation, as had the earlier Native tribes.

### **Land Use**

Land use practices have determined the patterns of development and landscape at Port Oneida. Settlement of the area was imprinted on the land primarily through logging and agricultural practices. The early logging cleared the area of first growth forests and opened up many fields for agriculture. Through much of the period of significance, the predominant land use in the Port Oneida area was agriculture. The land was cleared and used for the cultivation of grain crops and pastures. Following the period of significance, the reforestation that occurred is still evident in the second growth forests, and the planted conifer windbreaks and pine plantations found throughout Port Oneida. The general pattern of development has produced a series of farms and open fields linked by roads, which responds to the local topography and the shoreline of Lake Michigan. The historic character of the farms and their extant features reflect the agricultural character of Port Oneida's past. Buildings, fence lines, plantings and open fields are all evidence of agricultural land use at Port Oneida. While the use of the land changed, Port Oneida retains much of the shape and form of the land use practices that were present during the period of significance.

Today, land use has transitioned from active farming activities to the recreational and educational activities of Sleeping Bear Dunes National Lakeshore. Port Oneida also includes private youth camps and a few scattered private residences.

### **Spatial Organization and Topography**

Port Oneida's spatial character is primarily defined by topography and vegetation, which is influenced by the imposing presence of Lake Michigan. The relationship between Port Oneida and Lake Michigan has remained largely unchanged throughout Port Oneida's history of settlement. The broad open spaces that define the central and southern portion of Port Oneida are framed by the forested moraines that rise up and surround these low-lying and gently sloping parcels of agricultural fields and pastures. Farms punctuate the broad open landscape with building clusters, conifer windbreaks (non-historic), fences, orchards and rows of sugar maple trees. The moraines that surround Port Oneida provide a physical and visual divide between Port Oneida and the modern development that is occurring in its neighboring communities.

### **Circulation**

Port Oneida's circulation system of one and two-lane roads that connected the farmsteads and linked Port Oneida to surrounding communities has only been minimally altered

since the period of significance. The overall pattern and alignment of the roads remains much as it did in the mid-1920s, with the exception of incremental road widening and the realignment of M-22 between the Charles Olsen and Dechow farms, and around the North Unity schoolhouse site (NPS, 2004a). Traces of earlier roads, including 1800s logging roads and the original alignment of Port Oneida Road, along the western shoreline, are visible in a few locations.

Port Oneida's road system is significant in that it contrasts with the traditional Midwestern pattern of laying out roads along section lines to maximize agricultural use. This traditional pattern, however, does occur at Lawr farm, and where M-22 intersects with Port Oneida Road. The other roads primarily follow the natural topography and features, including M-22 that follows a broad glacial meltwater channel, Port Oneida Road that parallels the Lake Michigan shoreline, and secondary roads that follow the ridgelines in the forested moraines.

The character of the roads ranges from the open, broad curving alignment of M-22 that is paved with asphalt and carries higher speeds and volumes, to the narrow sand and gravel surfaced roads through second growth forests that follow curving ridgelines and steep slopes.

### **Buildings, Structures, and Small-Scale Features**

Port Oneida is distinguished by its well-preserved community of farms and historic structures. The buildings are primarily associated with individual farmsteads and are generally arranged in a characteristic pattern (described as the building cluster) that forms an interior courtyard or farm yard. The houses, barns and outbuildings are skillfully crafted and reflect the heritage of the early settlers. They provide a visual reference in the broad open landscape and are recognizable as a cohesive grouping of farms with similar architectural styles.

In addition to the farmsteads, other structures contribute to the significance and integrity of Port Oneida including the Port Oneida schoolhouse, North Unity schoolhouse, several barns, and remnants of the Port Oneida dock.

Small-scale features are found on all of the farmsteads in Port Oneida and include fences, gates, cisterns, and other farm landscape features that contribute to the character of Port Oneida.

### **Vegetation**

The agricultural fields and the forested moraines remain the dominant vegetative communities in Port Oneida, providing a characteristic spatial pattern of forests and open fields that contributes to Port Oneida as a cultural landscape. The fields are no longer cultivated or grazed, but are managed by the NPS to reduce encroachments. A variety of other intentional plantings also highlight the past agricultural use in Port Oneida. These include functional plantings, such as remnant orchards, sugar maple rows, pine plantations, and conifer windbreaks. Ornamental plantings occur within many of the

farmstead building clusters and are generally shrubs, such as lilacs and spiraeas that were planted to improve the aesthetics of the farm.

The open fields, now covered predominantly with smooth brome grass include land that was formerly cultivated for grain crops, including oats, rye and wheat, and for potatoes sold as a cash crop. Other fields were used as pastures for grazing cattle and sheep. Remnant orchards exist at many of the farms in Port Oneida. The original orchards were small, usually consisting of approximately 20 apple or cherry trees, and were primarily grown to provide food for the farm family, with an occasional limited surplus. This contrasted with the larger commercial enterprises that became established elsewhere in Leelanau County. Sugar maple trees were both functional and aesthetic. They were tapped by farmers for maple syrup production, and rows of sugar maple trees lined the roads, providing a distinct unifying character. The sugar maple trees remain as prominent landscape features.

Conifer windbreaks, usually spruce and pine, were planted in the 1950s, after the period of significance. The windbreaks helped to reduce soil erosion and conserve soil resources. In addition, pine plantations were planted by farmers, in select locations of Port Oneida, to reforest the landscape and prevent soil erosion caused by strong winds (McEnaney, *et. al.*, 1995).

Farmers also planted small groves of black locust trees (*Robinia pseudoacacia*), which are still evident in several locations in Port Oneida. These trees were planted for wood for fence posts or wagon tongues. The black locust trees have become invasive and are encroaching into the adjacent hardwood forest and open fields.

## **Views**

Views and vistas to building clusters, between farms, and to Lake Michigan have changed only slightly since the period of significance. Today, there are few modern intrusions that detract from this historic scene. Changes are generally due to continued growth in the forested moraines and encroachment of woody vegetation into the open fields and pastures. The visual relationship between Lake Michigan and Port Oneida has changed slightly due to the growth of the hardwood forest and expansion of the conifer windbreaks.

## **4.3. ANALYSIS OF CONTRIBUTING FEATURES AND INTEGRITY**

This section describes the contributing features of each farm and provides an overall assessment of the historic integrity for the four farms that are considered eligible sites for a visitor contact station (Carsten Burfiend, Charles Olsen, Dechow, and Kelderhouse). Section 2.0 provides a discussion on the alternatives and the selection process.

Historic integrity can be described as the ability of a landscape to convey the spatial organization, physical components, and historic associations that it attained during its period of significance (NPS,1989). This analysis focuses on six aspects of historic integrity including location, setting, materials, workmanship, feeling and association. The

aspect of design was not considered due to the vernacular character of the farms. Definitions of the aspects of historic integrity are shown in Table 4-1. Three primary reference documents have been used for this analysis: *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (NPS, 1998a); National Register Bulletin 30, *Guidelines for Evaluating and Documenting Rural Historic Landscapes* (NPS, 1989); and Director's Order 28, *Cultural Resource Management* (NPS, 1998b). Table 4-2 provides an analysis of integrity for each of the landscapes assessed. The overall integrity of each historic landscape has been identified as high, medium or low.

**Table 4-1: Aspects of Historic Integrity**

<b>Location</b> – The place where the cultural landscape was constructed or the landscape where the historic event occurred
<b>Setting</b> – The physical environment of the cultural landscape
<b>Materials</b> – The physical elements that were combined or deposited during the particular period(s) of time and in a particular pattern or configuration to form the cultural landscape
<b>Workmanship</b> – The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory
<b>Feeling</b> – A cultural landscape's expression of the aesthetic or historic sense of a particular period of time
<b>Association</b> – The direct link between the important historic event or person and a cultural landscape

**Table 4-2: Analysis of Integrity**

	<b>Level of Integrity</b>	Location	Setting	Materials	Workmanship	Feeling	Association
Burfiend	<b>High</b>	H	H	M	H	H	M
Olsen	<b>Medium</b>	H	M	M	H	M	M
Dechow	<b>High</b>	H	H	H	H	H	M
Kelderhouse	<b>Medium</b>	H	M	M	M	M	H

#### **4.3.1. District Overview**

Port Oneida is significant for its association with Northern European immigrant settlement patterns and the subsequent evolution of the area as a rural, subsistence level agricultural landscape. Port Oneida has a high degree of historic integrity. Today, Port Oneida and the cultural landscape characteristics that shaped its landscape during the period of significance are present in much the same way as they were historically. This is reflected in the extant farmsteads and building clusters, spatial patterns of fields and pastures, tree rows, vegetation, and circulation patterns that continue to convey the historic scene. A distinct cohesive grouping of farmstead buildings exists with similar architectural styles and symbols that reflect the cultural heritage of early settlers. Port Oneida has had few modern alterations, and the moraines that surround the open fields and farms continue to provide a physical and visual divide that buffers the modern development occurring in the neighboring communities.

The majority of the buildings, structures and small-scale features remain much as they did during the period of significance due to the modest lifestyle of the farmers who did not have the means to substantially modify their homes. The roads remain in their historic alignments, although some have been realigned for safety and in response to farm

improvements. Port Oneida Road was moved during the period of significance in 1923 to its current alignment. Originally located on the bluff in front of the Burfiend house, the road was moved in response to complaints from residents about beach visitors picnicking in their yard, (McEnaney, *et. al.*, 1995). Traces of the original road are visible on the west side of the Carsten Burfiend farm.

Changes to the vegetation have occurred at most of the farms and is related to: (1) natural succession of the forest areas; (2) encroachment of trees into open fields; (3) loss and deterioration of orchards, sugar maple rows and other ornamental plantings due to aging, disease and natural decay; and, (4) widespread planting of pine plantations and conifer windbreaks.

Port Oneida's integrity has been slightly impacted by the loss of original features including fences, a number of buildings and structures, and the encroachment of woody vegetation into historic fields and pastures. However, Port Oneida has retained a strong historic scene and a "sense of place" due to the existence of these landscape characteristics and the relationship of the cultural landscape to the natural systems and features of the area (McEnaney, *et. al.*, 1995).

#### **4.3.2. Carsten Burfiend Farm**

The Carsten Burfiend farm is unique among the farms managed by the NPS in the Port Oneida Rural Historic District due to its adjacency to Lake Michigan and the organization of the farmstead into two building clusters (east and west) that are bisected by Port Oneida Road. The farm has a high degree of integrity due to the extent of original structures, fields, small-scale features, circulation patterns, and relationships that remain from its period of significance.

The farmstead's characteristic white, clapboard buildings in the west building cluster - the original 1893 farm house and 1890s garage, and 1926 second house and privy - are prominent visual elements that contribute to the farm and to the broader significance of Port Oneida. The farmstead's primary original buildings are extant as are many of the original outbuildings including the foundation of the original barn in the east building cluster. The loss of this large barn, which was prominently located along Port Oneida Road and would have been a significant visual feature somewhat lessens the presence of the farm along the road.

The Carsten Burfiend farm is the only farm of the four farms under consideration for a visitor contact station in Port Oneida that has a direct physical and visual connection to Lake Michigan. The relationship between the farm and Lake Michigan has changed slightly since the period of significance, primarily due to the continued growth in the conifer and hardwood forest along the bluff. The increased density of vegetation along the shoreline bluff is beginning to obscure the visual connection. A minor intrusion into the historic scene is the modernization of a private home to the north of the farm.

Non-contributing features are minor elements and include steps down to the shore of Lake Michigan and a small grass parking lot located adjacent to the west side of Port Oneida Road. These non-contributing features do not impact the integrity of the farm.

#### **4.3.3. Charles Olsen Farm**

The Charles Olsen farm is distinguished by its characteristic buildings and vegetation, most notably its large red dairy barn, Queen Anne style bungalow, and sugar maple tree rows. While its major structures, vegetation, fields, circulation patterns and relationships remain from its period of significance, the integrity of the farm has been impacted by the loss of a number of structures and the incremental widening and repaving of M-22. The structures lost include the grandmother's house, a chicken coop and several outbuildings. The farm has a medium degree of integrity.

The building cluster retains its historic character. Surrounded by open fields and set against a forested backdrop, the house and barn, their proximity to M-22 and the sugar maple tree rows combine to provide a focal point for Port Oneida. The view of the farmhouse and barn, particularly from the south along M-22, contributes to the significance of the entire District. This distinct view also contributes to the high degree of integrity that is exhibited by the overall District.

The relationship of the Charles Olsen farm to Port Oneida and to nearby farms remains as it was during the period of significance. Views between the Charles Olsen farm and the Dechow farm provide a strong visual connection that is a contributing characteristic of Port Oneida.

#### **4.3.4. Dechow Farm**

The Dechow farm and building cluster, with its surrounding agricultural fields and a forested hillside as a backdrop, provides an important characteristic image of Port Oneida that is visually prominent along M-22 and from other areas within Port Oneida.

The Dechow farm remains much as it was during the period of significance. Its distinct and prominent setting and the extent of its extant features provides a high degree of integrity for the farm. The views towards the building cluster and pasture barn with a backdrop of open fields and forested hillsides makes the Dechow farm highly significant to the Port Oneida Rural Historic District and provides a focal point for Port Oneida. This distinct view also contributes to the high degree of integrity that is exhibited by the overall District.

The farmstead is characterized by its buildings and structures that are arranged to form a building cluster or farm yard and by its agricultural fields that include a series of prominent terraced fields. The rows and groups of sugar maple trees provide a distinct character. Other important landscape features include open fields surrounding the building complex, a remnant orchard, and a small sugar shack.

The relationship of the Dechow farm to Port Oneida and to nearby farms remains as it was during the period of significance. Views between the Dechow farm and the Charles Olsen and Kelderhouse farms provide strong visual connections. Its prominent setting in the center of Port Oneida also allows for important views from the Port Oneida cemetery, Port Oneida Road, and the Port Oneida schoolhouse.

A few recent features have been added to the building complex. The garage was added late in the period of significance, in the 1940s, but is still a contributing and compatible feature. The mown trails and parking areas are non-contributing but compatible features.

#### **4.3.5. Kelderhouse Farm**

The Kelderhouse farm is located just north of the intersection of Port Oneida Road and M-22. The Kelderhouse farm is significant for its association with Thomas Kelderhouse, who is credited with the early development of the Port Oneida community, and for its role as the center of the community. The farm is also significant for its central location and proximity to the Port Oneida schoolhouse and Port Oneida cemetery. The farm has a medium degree of integrity due to the loss of its prominent barn and several outbuildings.

The Kelderhouse farmstead retains its original feeling and is characterized by a compact building cluster that is immediately adjacent to Port Oneida Road and surrounded by open agricultural fields on two sides and a remnant orchard to the south. The house is the most prominent of the structures. One of its most characteristic features is the row of mature sugar maple trees that borders Port Oneida Road and extends for the entire length of the building cluster. The spatial organization of the farm remains much as it was during the period of significance; however, several buildings no longer exist, including the Kelderhouse barn that once anchored the northern edge of the building cluster.

The remnant orchard is one of the most intact and prominently located in Port Oneida; however, the orchard has been reduced to a few trees in a faded row pattern.

The views to and from the Kelderhouse farm have changed relatively little since the period of significance. Views to the Port Oneida schoolhouse, Port Oneida cemetery and Dechow farm are intact and important to the farm. Views into the building cluster from Port Oneida Road are framed by mature sugar maples and appear much as they would have during the period of significance.



## 5.0 EXISTING CONDITIONS/AFFECTED ENVIRONMENT

### 5.1 ECOLOGICAL RESOURCES

Port Oneida is a 3,400-acre rural historic district within the boundary of Sleeping Bear Dunes National Lakeshore. Documentation of ecological resources within Port Oneida has focused primarily on flora, and vertebrate wildlife, including amphibians, reptiles, mammals, and birds. The project area occurs within the Great Lakes section of the Hemlock-White Pine-North Hardwoods Region as described by Braun (1950). The original hardwood and hemlock-hardwood forests were dominated by sugar maple (*Acer saccharum*), beech (*Fagus grandifolia*), yellow birch (*Betula alleghaniensis*), basswood (*Tilia americana*), and eastern hemlock (*Tsuga canadensis*). Once these forests were cut for lumber and farming, secondary forests often included a predominance of both quaking aspen (*Populus tremuloides*) and big-tooth aspen (*Populus grandidentata*). The original pine forests in the region were dominated by white pine (*Pinus strobus*), red pine (*Pinus resinosa*) and jack pine (*Pinus banksiana*).

The vegetative landscape in Port Oneida is dominated by inactive farm fields, forested morainal hills and wetlands. Old fields in Port Oneida are dominated by smooth brome (*Bromus inermis*). They are being overtaken by early successional species such as black cherry (*Prunus serotina*), red pine (*Pinus resinosa*), and exotic plants such as black locust (*Robinia pseudoacacia*) and spotted knapweed (*Centaurea maculosa*).

Forested morainal hills provide the dominant topographic element in Port Oneida. They are a result of retreating ice from the Wisconsin glacier occurring approximately 11,000 years ago. The *Flora of Sleeping Bear* (Hazlett, 1991) provides data on existing vegetation conditions throughout the park. Port Oneida is contained within the Good Harbor Bay Unit. Hazlett notes that the northern hardwoods on the moraines of this area are largely composed of sugar maple, beech, white ash (*Fraxinus americana*) and red oak (*Quercus rubra*).

A large, mixed scrub-shrub and emergent wetland is found central to the Port Oneida District. Dominant species include northern white cedar (*Thuja occidentalis*), larch (*Larix laricina*) and speckled alder (*Alnus rugosa*) (Hazlett, 1991). This wetland is primarily groundwater fed; however, beaver activity has expanded its boundaries.

Park staff compiled lists of vertebrate wildlife found in Sleeping Bear Dunes National Lakeshore. Approximately 21 species of amphibians, 19 species of reptiles, and 45 species of mammals have been reported in the park. Common amphibians include American toad (*Bufo americana*), gray tree frog (*Hyla versicolor*), green frog (*Rana clamitans*), wood frog (*Rana sylvatica*) and red-backed salamander (*Plethodon cinereus*). Common reptiles are northern water snake (*Nerodia sipedon*), common garter snake (*Thamnophis sirtalis*), eastern box turtle (*Terrapene carolina*), and midland painted turtle (*Chrysemys picta marginata*). Frequently observed mammals include American beaver (*Castor canadensis*), Virginia opossum (*Didelphis virginiana*), meadow vole (*Microtus*

*pennsylvanicus*), red squirrel (*Tamiasciurus hudsonicus*), striped skunk (*Mephitis mephitis*) and white-tailed deer (*Odocoileus virginianus*).

According to the *Atlas of Breeding Birds of Michigan* (Brewer, *et al.*, 1992), 159 species of birds were recorded as breeding in Leelanau County during the 1983 to 1988 survey. Approximately 250 species of birds have been observed within the park. Some of the common breeding birds include Cooper's hawk (*Accipiter cooperii*), mourning dove (*Zenaida macroura*), downy woodpecker (*Picoides pubescens*), black-capped chickadee (*Poecile atricapillus*), red-breasted nuthatch (*Sitta canadensis*), red-eyed vireo (*Vireo olivaceus*), hermit thrush (*Catharus guttatus*), magnolia warbler (*Dendroica magnolia*), pine warbler (*Dendroica pinus*), red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*) and white-throated sparrow (*Zonotrichia albicollis*).

In the summer of 2002, an assessment of historic openlands (fields) was conducted at the park by Greg Corace and Thomas Wyse (Corace.G. and Wyse, T., 2002). Their observations in the Thoreson field area included the five following bird species of "conservation priority" by the U.S. Fish and Wildlife Service (USFWS): northern harrier (*Circus cyaneus*), field sparrow (*Spizella pusilla*), grasshopper sparrow (*Ammodramus savannarum*), bobolink (*Dolichonyx oryzivorus*) and eastern meadowlark (*Sturnella magna*). It is likely that these species, which are protected by the Migratory Bird Treaty Act of 1918, would be found in all fields in Port Oneida.

## **5.2. CULTURAL RESOURCES**

This section describes the existing conditions of the cultural landscape of Port Oneida and provides the foundation for the cultural landscape assessment and analysis of potential impacts. The cultural landscape of the Port Oneida Rural Historic District (Port Oneida) contains extensive historic resources related to the settlement and development of the area. Much of the data in this report was collected from previous studies done for Port Oneida, including: *Farming at the Water's Edge* (McEnaney, *et al.*, 1995), *National Register of Historic Places Nomination Form* (NPS, 1997) and *Cultural Landscapes Inventory – Port Oneida Rural Historic District, Sleeping Bear Dunes National Lakeshore* (NPS, 2004a).

A site survey was conducted in May 2006 (MBD, 2006) to document the existing condition of landscape features of the four farms that are considered eligible sites for a visitor contact station. The primary roads of Port Oneida, M-22 and Port Oneida Road, were also reviewed to document their existing condition and relationship to Port Oneida. The condition of Port Oneida as a whole was also assessed.

The cultural landscape characteristics, relevant to the historic landscape, were assessed as part of the 2006 site survey. These characteristics include setting; land use; spatial organization and topography; circulation; buildings, structures, and small-scale features; vegetation; and views. Cultural landscape condition assessment work was done based on cultural resource management criteria as referenced in Director's Order 28, *Cultural Resource Management* (NPS, 1998b) and *A Guide to Cultural Landscape Reports*:

*Contents, Process, and Techniques* (NPS, 1998a). A description of the condition of Port Oneida at a broad scale is provided first. This is followed by a description of the condition of the four farms considered eligible for a visitor contact station, including the central cluster of structures and buildings generally associated with the house or main farm yard area of each farmstead. This section focused on these four farms to provide a basis for evaluation of impacts associated with use as a visitor contact station. Structures proposed for adaptive use as employee housing would require primarily interior rehabilitation and farmstead impacts are not anticipated. Existing conditions plans for the four farms are illustrated on Figures 5-1 through 5-6. Condition evaluations are made based on the following criteria:

- **Good** – No clear evidence of major negative disturbance and deterioration by natural and/or human forces. The landscape's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.
- **Fair** – minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is required within 3-5 years to prevent further harm to its cultural and/or natural values; without appropriate corrective action, the cumulative effect of the deterioration character-defining elements will cause the landscape to degrade to a poor condition.
- **Poor** – Clear evidence of major disturbance and rapid deterioration by natural and/or human forces; immediate corrective action is required to protect and preserve the remaining historical and natural values.
- **Undertermined** – Not enough information is available to make an evaluation.

### **5.2.1. Landscape Features – Overview**

#### **Setting**

Port Oneida is part of a glacially formed landscape that includes moraines, bluffs, ridges and hills. The ridges and hills are covered with woodland forests, forming an important backdrop for the cultural landscape. Lake Michigan is a major presence in Port Oneida, having a significant climatic, sensory, and visual impact on the area. The setting today remains much the way it appeared during the period of significance.

#### **Land Use**

The study area lies completely within the boundaries of Sleeping Bear Dunes National Lakeshore and is managed to preserve its historic character. Compatible interpretive and recreational activities, such as tours, biking, and hiking, that support the historic character of Port Oneida are provided. Adjacent properties include public and private uses that are primarily residential and recreational. Farming practices were the predominant historic land use; however, farming does not currently occur on lands managed by the NPS.

#### **Spatial Organization and Topography**

Port Oneida's spatial character is defined by its distinct natural topography, a rural landscape of open agricultural fields and farmsteads, and the presence of Lake Michigan. Open fields are defined and often enclosed by forested hillsides, rows of conifer

windbreaks, pine plantations, and rows of mature sugar maple trees. Historic farms with their associated fields, fences and fence lines, orchards, and building clusters of houses, barns and outbuildings dot the rural landscape.

### **Circulation**

Port Oneida is accessed by M-22, a two-lane, asphalt-paved road that follows a glacial meltwater channel through the south central portion of Port Oneida and several Leelanau County roads. M-22 connects Port Oneida with the remainder of Sleeping Bear Dunes National Lakeshore, including the Philip A. Hart Visitor Center in Empire. M-22 is also the primary connection to surrounding counties and small towns.

A looped circulation system along secondary county roads, including Port Oneida Road and Basch Road, provides circulation within Port Oneida. Several gravel surfaced roads connect the individual farms including Kelderhouse Road, Baker Road and Thoreson Road.

Port Oneida has a pedestrian circulation system of soft surface and mown grass trails. Several trails follow the alignments of historic farm and logging roads or historic field lines. Others connect the historic farms, particularly those frequently used as visitor sites. Several hiking trails access Port Oneida's natural sites including the Pyramid Point Trail at Port Oneida's northern end. A number of social trails also exist, several of which access the Lake Michigan shoreline.

### **Buildings, Structures and Small-Scale Features**

A range of buildings, structures and small-scale features exist at individual farmsteads that collectively establish the character of Port Oneida as a rural historic district. More information on structures is provided in Section 5.2.3. Small-scale features – in particular, foundations, fences and fence lines, gates, signs and cisterns – also contribute to establishing Port Oneida's character. Fences and fence lines delineate the open fields that are associated with the individual farms. At Burfiend and Kelderhouse farms, remnants of building foundations and barn corners mark the locations of barns. At Charles Olsen and Kelderhouse farms, remnants of building foundations mark the locations of outbuildings.

Modern site elements on properties managed by the NPS include restrooms, electric power lines and poles, septic tanks, and signs associated with Sleeping Bear Dunes.

### **Vegetation**

Port Oneida has a range of native and naturalized plant species, invasive plant species, and domesticated plantings that establish its rural character. The native and naturalized species primarily occur on the forested hillsides and wooded bluffs that surround the agricultural fields and farmsteads, and also in the large emergent wetland in the center of Port Oneida. Invasive plant species include domesticated plantings as well as weedy species that are encroaching into the open fields and hardwood forests. Domesticated plantings include exotic and native plants that were introduced for agricultural and ornamental purposes. These include remnant orchards, sugar maple tree rows, conifer

windbreaks, pine plantations, and ornamental shrubs. Remnants of small orchards occur at many of the farms and are primarily mature apple trees arranged in rows or partial rows. Most of the fruit trees are aging and are in declining health. Conifer windbreaks and pine plantations mark many of the field edges and property boundaries. These groups and rows of trees are landscape features that occur throughout Port Oneida.

Small groves of black locust trees were historically planted to provide wood for fence posts and wagon tongues (McEnaney, *et. al.*, 1995). The trees have become invasive, expanding into fields and hillsides, most notably on the forested moraine and fields behind the Charles Olsen farm and the Port Oneida schoolhouse.

### **Views**

Views and vistas are important to the historic landscape, establishing the character of Port Oneida as a rural historic district. Significant views, particularly those towards the Dechow and Charles Olsen farms along M-22 and to the Kelderhouse and Burfiend farms along Port Oneida Road provide a visual introduction to the historic scene, showcasing the buildings, open fields and land use patterns that define the character of Port Oneida.

Lake Michigan is visible from several locations in Port Oneida, including along Thoreson Road near the Thoreson farm, from the Burfiend farmstead's west building cluster, from the Bay View and Pyramid Point hiking trails, and from the overlook along Basch Road.

Historically, many of the farms were visually connected to each other (McEnaney, *et. al.*, 1995) and remain so today.

### **5.2.2. Landscape Features of Individual Farms**

The existing conditions of the cultural landscapes of the four individual farms under consideration for the potential location of a visitor contact station are described in this section. A general description of the existing condition of each farm is presented first, followed by a table that describes the cultural landscape features of each farm and their condition.

#### **Carsten Burfiend Farm**

The Carsten Burfiend farm (Figure 5-1) is located along Port Oneida Road approximately one mile north of the intersection of M-22 and Port Oneida Road. The farmstead is characterized by two building clusters that occur on either side of Port Oneida Road, both surrounded by agricultural fields (Figure 5-1). The west building cluster, illustrated in Figure 5-2, is located west of Port Oneida Road on a wooded bluff above Lake Michigan. Immediately east and across Port Oneida Road is the east building cluster, Figure 5-3, located in a low-lying level area, slightly below the road. Table 5-1 provides detailed information on the individual cultural landscape features and their condition. Photographs illustrating the farm and its features are provided in Figures 5-4 and 5-5. The west building cluster is situated close to Lake Michigan, well away from Port Oneida Road. The complex is accessed by a narrow asphalt drive that ends on the eastern side of the garage. The building complex is comprised of two houses and a garage, arranged

**Figure 5-1: Carsten Burfiend Farm – Overview**

