

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

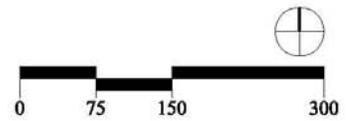
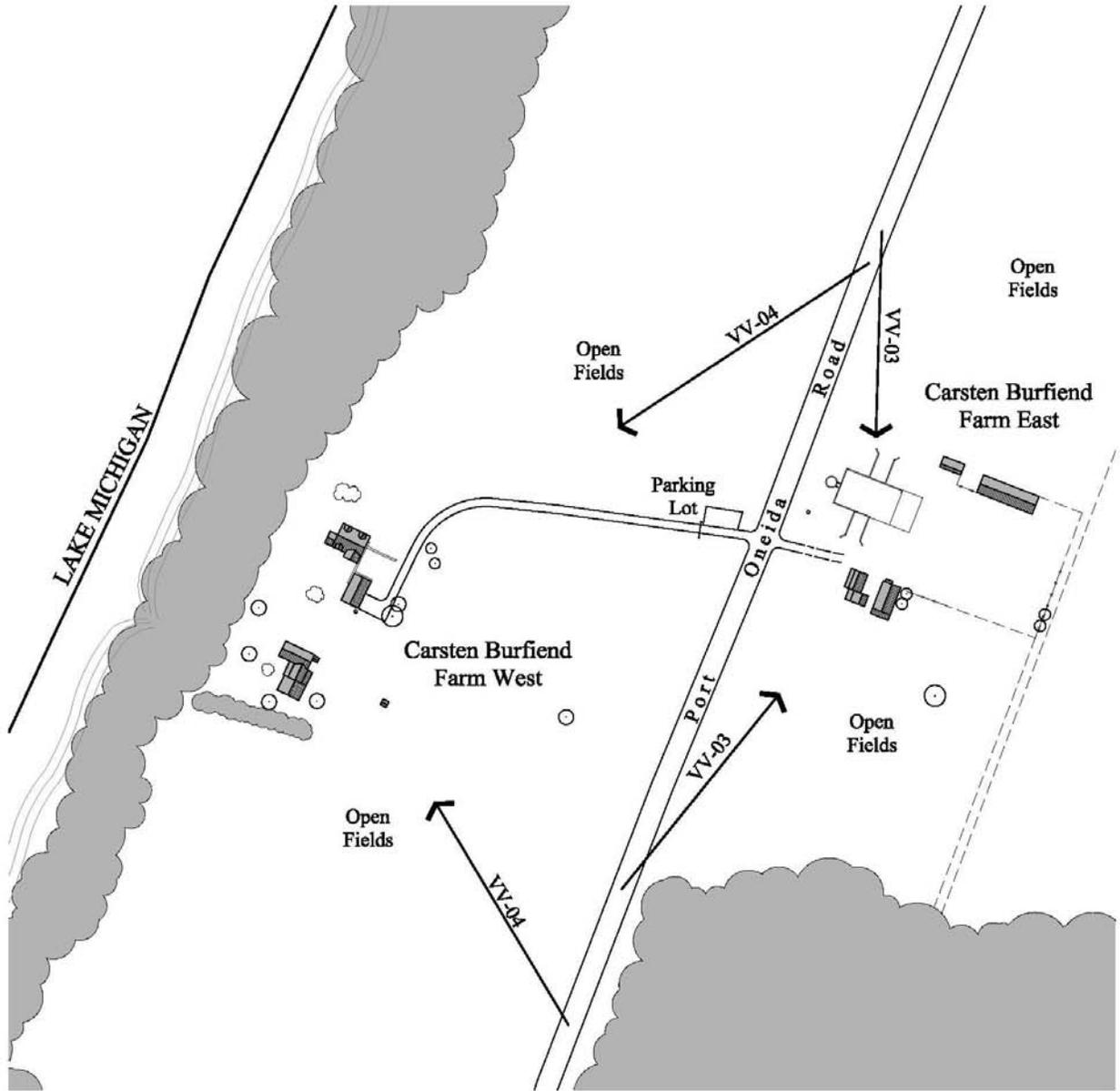


Figure 5-2: Carsten Burfiend Farm West

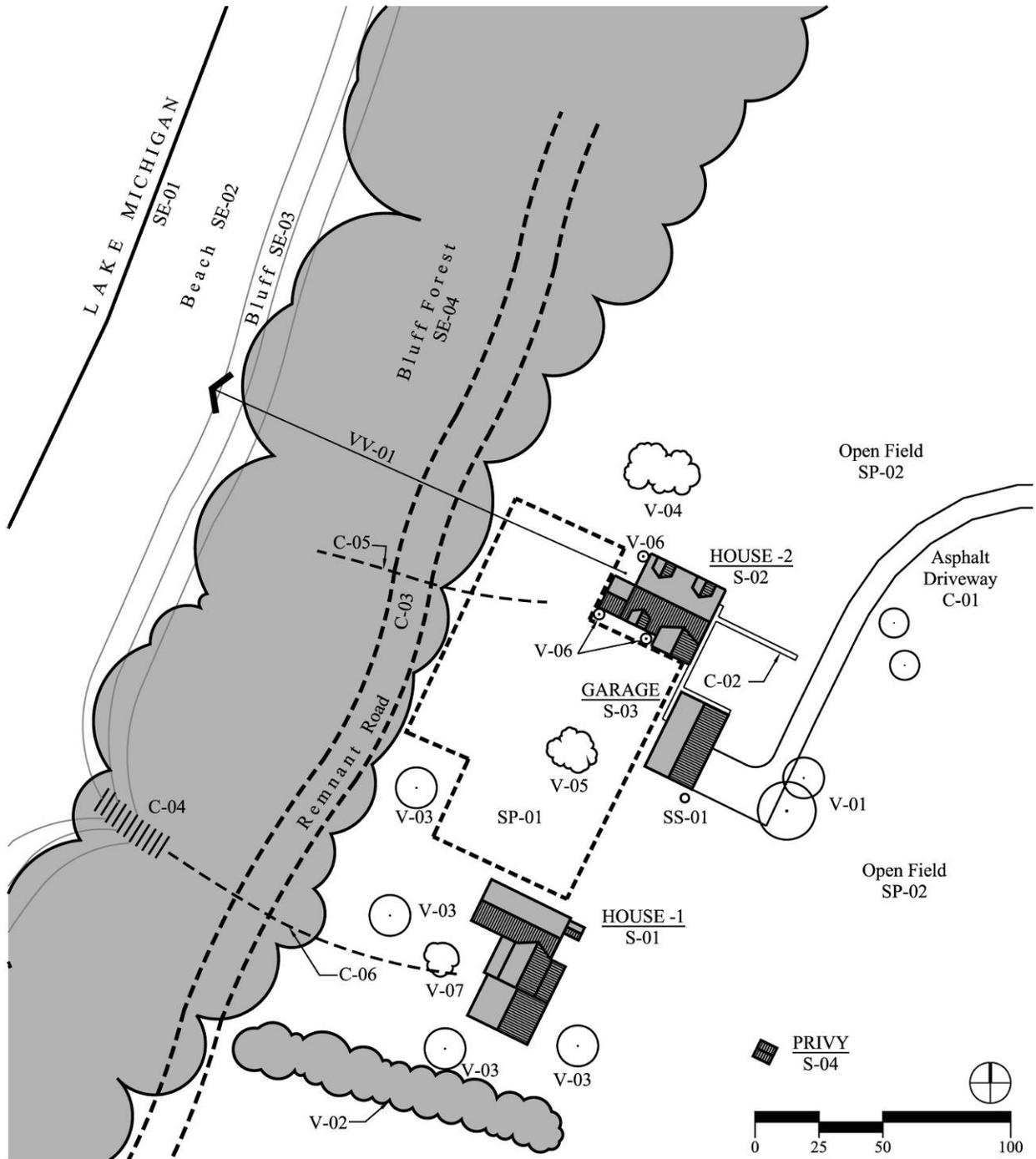


Figure 5-3: Carsten Burfiend Farm East

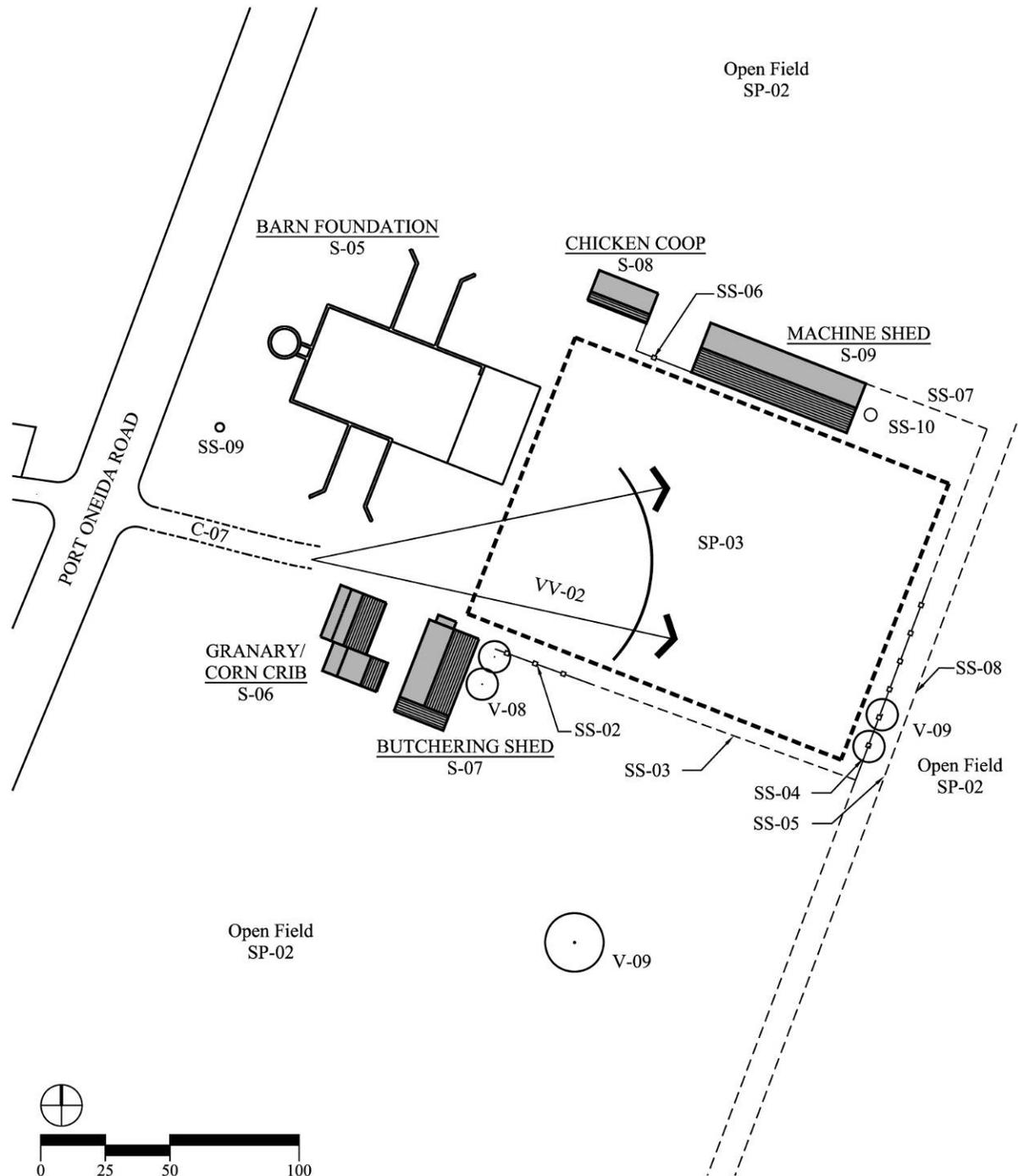


Figure 5-4: Photographs – Carsten Burfiend Farm



Burfiend (west) driveway and parking area
(MBD 2005)



Burfiend (west) garage, driveway and sugar maple planting
(MBD 2005)



Burfiend (west) House No. 2, with foundation plantings
(MBD 2005)



Burfiend (west) House No. 2, with House No. 1 in background
(MBD 2005)

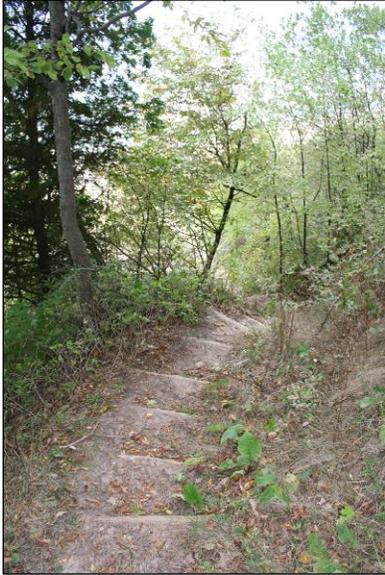


Burfiend (west), view to water from bluff
(MBD 2005)



Burfiend (west) privy
(MBD 2006)

Figure 5-5: Photographs – Carsten Burfiend Farm



Burfiend (west) non-contributing steps to beach (MBD 2005)



Burfiend (east) barn foundation, machine shed, chicken coop (MBD 2005)



Burfiend (east) farm yard, extant fences and fence lines, and fields (MBS 2005)



Burfiend (east) granary/corn crib, butchering shed (with fruit trees) (MBD 2005)

Table 5-1: Carsten Burfiend Farm Existing Features

Setting				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SE- 01	Lake Michigan	5-2		Good
SE - 02	Beach	5-2		Good
SE - 03	Bluff/Escarpment	5-2		Good
SE - 04	Bluff Forest	5-2	Wooded edge along bluff	Good
Spatial Organization				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SP - 01	Farm Yard – west	5-2	Area formed by arrangement of structures, plantings and bluff edge	Good
SP – 02	Open Fields	5-2	Open field areas, historically used pasture/ agriculture	Good
SP - 03	Farm Yard – east	5-3	Area formed by arrangement of structures and fence lines	Good
Circulation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
C – 01	Driveway – west	5-2	Asphalt drive, 10'-12' width in historic alignment	Good
C – 02	Concrete Sidewalks	5-2	Concrete sidewalks adjacent to and connecting House Nos. 1 & 2 and garage	Good
C – 03	Remnant Road	5-2	Extant portions of historic road, visible as linear depressions	Poor
C – 04	Steps to Beach	5-2	Wooden timber steps down bluff to beach – pedestrian access	Fair
C – 05	Social Trail	5-2	Path to bluff forest	Fair
C - 06	Social Trail	5-2	Path to bluff forest	Fair
C – 07	Driveway – dirt, two track	5-3	Driveway to barn and outbuildings	Fair

Structures and Small-Scale Features				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
S - 01	House No. 1	5-2		Fair
S - 02	House No. 2	5-2		Fair
S - 03	Garage	5-2		Good
S - 04	Privy	5-2		Fair
S - 05	Barn Foundation	5-3	Foundation only extant	Good
S - 06	Granary/Corn Crib	5-3		Fair
S - 07	Butchering Shed	5-3		Fair
S - 08	Chicken Coop	5-3		Fair
S - 09	Machine Shed	5-3		Fair
S - 10	Brooder House	5-3	Moveable structure	Poor
S - 11	East Privy	5-3	Moveable structure; ruins	Poor
SS - 01	Electric Power Pole	5-2		Good
SS - 02	Extant Fence	5-3	East-west fence adjacent to butchering shed	Fair
SS - 03	Extant Fence Line	5-3	East-west	Fair
SS - 04	Extant Fence	5-3	North-south	Poor
SS - 05	Extant Fence Line	5-3		Fair
SS - 06	Extant Fence Line	5-3	Fence b/chicken coop and machine shed – poles only	Fair
SS - 07	Extant Fence Line	5-3	East-west	Fair
SS - 08	Extant Fence Line	5-3	North-south	Fair
SS - 09	Electric Power Pole	5-3		Good
SS-10	Stone Pile	5-3	Small pile of collected stones	Fair
Vegetation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
V - 01	Sugar Maples	5-2	Sugar maples aligned in a row	Fair
V - 02	Conifer Windbreak	5-2		Good
V - 03	Spruce Tree	5-2	Large spruce trees	Good
V - 04	Berry Patch	5-2	Remnant berry patch	Fair
V - 05	Spiraea Planting	5-2		Fair
V - 06	Foundation Shrub Plantings	5-2		Fair
V - 07	Lilac Clump	5-2	Marks burial site	Fair
V - 08	Fruit trees	5-3	Two fruit trees	Poor
V - 09	Trees	5-3	2 deciduous trees – naturalized	Good
Views				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
VV-01	View to Lake Michigan	5-2	From farm yard	Fair
VV-02	View Overlooking Farm Yard and Fields to East	5-3	From driveway/entry	Good
VV-03	View to Burfeind East	5-1	From Port Oneida Road	Good
VV-04	View to Burfeind West	5-1	From Port Oneida Road	Good

inwardly toward one another and to Lake Michigan. The buildings define the northern and eastern edges of the building complex. The western edge is buffered by a dense forest of hardwoods and a few conifers that extends along Lake Michigan for the entire length of the farm (and most of the western portion of Port Oneida). The forest sits at the top of the bluff above the sandy shoreline of Lake Michigan. The southern edge of the building cluster is defined by a linear conifer windbreak. Traces of the original Port Oneida Road remain along the Lake Michigan bluff, approximately 100 feet from the original 1893 farmstead house (House-01).

The buildings include the two houses, garage and a privy. All are white, clapboard-sided structures. The privy is located southeast of the building cluster. The interior of the building cluster, described as the farm yard, is a grassy lawn open to the west. Domesticated plant species, including lilac and spiraea shrubs, occur in the lawn at the corners of structures and along fence lines. Narrow, concrete sidewalks connect the building complex to the drive. Soft surface trails extend from each of the houses to the bluff. The southernmost trail, extending from the original 1893 farmstead house, connects to wood timber steps that provide access to the Lake Michigan shore.

The east building cluster, Figure 5-3, is characterized by a group of outbuildings that form a three-sided farm yard open to the east. The chicken coop and machine shed form the northern edge, and the granary and butchering shed define the southern edge. Fences enclose the farmstead yard on the east edge and along most of the southern edge. A large barn originally defined the west edge. All that remains of the barn is a concrete foundation and wall remnants.

The agricultural fields are dominated by a smooth brome grass. Portions of the fields are edged with conifer windbreaks. Since the agricultural fields are not managed for crops, there are some instances where pine and deciduous trees are naturalizing in the fields.

Charles Olsen Farm

The Charles Olsen farm (Figure 5-6) is located in the southwestern portion of the Port Oneida Rural Historic District. The farm is immediately adjacent to M-22 on its western edge and is the second farm encountered (the first being the Werner Farm) in Port Oneida when traveling from the south. Table 5-2 provides detailed information on the farm, and its individual cultural landscape features and their condition. Photographs illustrating the farm and its features are provided in Figure 5-7.

The Charles Olsen farm is a prominent feature along M-22 due to its distinct barn and farmhouse, its close proximity to the highway, and the rows of sugar maples that line both sides of the highway. The farmstead consists of a small cluster of buildings on the north edge of the highway and agricultural fields that extend from the buildings to the east and west.

The northern edge of the farm is defined by a forested hillside. The heavily vegetated hillside is predominantly a hardwood forest, although invasive black locust trees are

Figure 5-6: Charles Olsen Farm

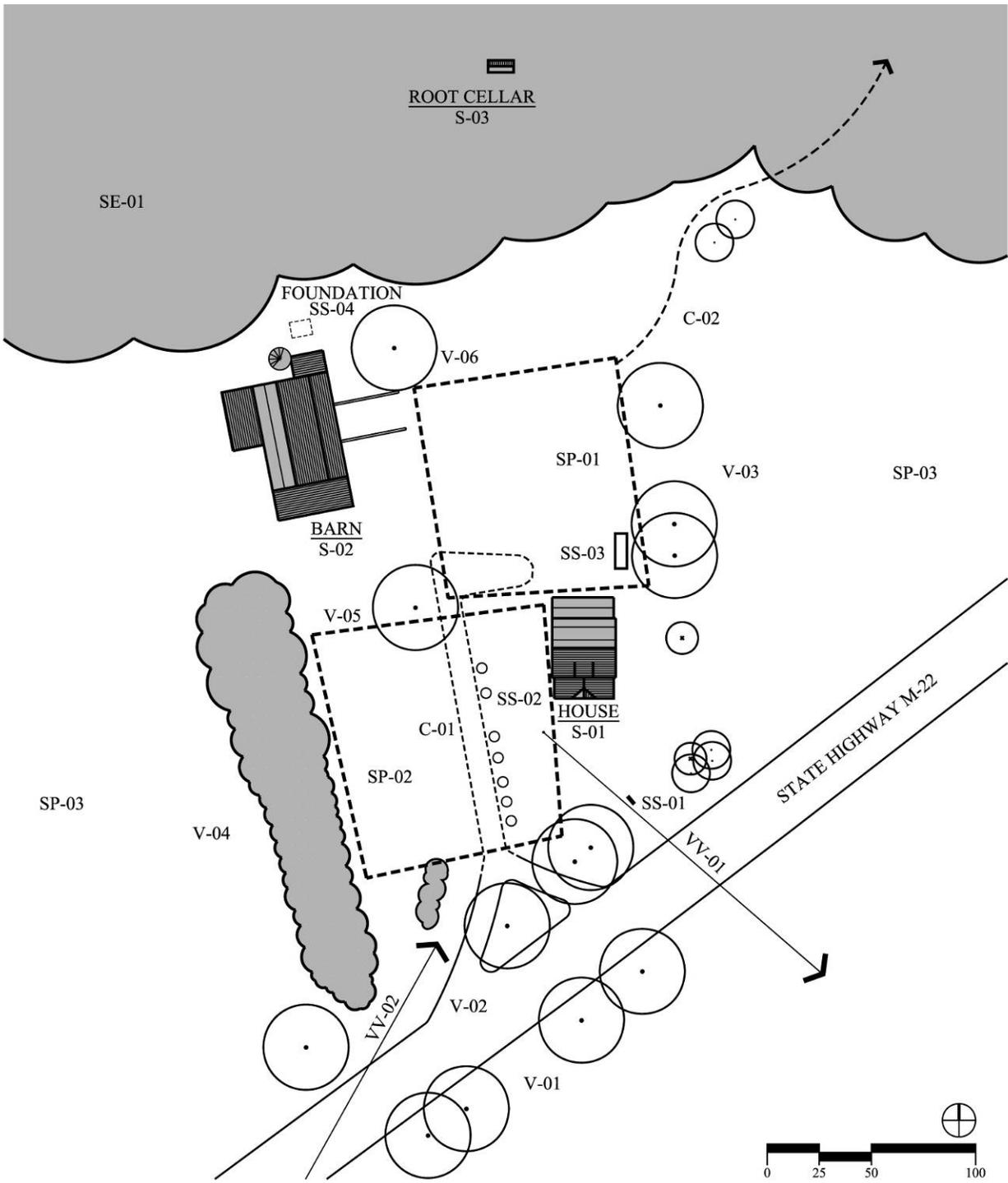


Figure 5-7: Photographs – Charles Olsen Farm



Charles Olsen, view of barn from M-22
(MBD 2005)



Charles Olsen house (MBD 2006)



Charles Olsen, view to Dechow house, farmstead
(JJR 2005)



Charles Olsen farm yard with house, driveway,
and sugar maples at entry (MBD 2005)



Charles Olsen farm yard with conifer windbreak
driveway and black walnut tree (MBD 2005)



Charles Olsen farm, root cellar to north of
farmstead (MBD 2006)

Table 5-2: Charles Olsen Farm Existing Features

Setting				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SE-01	Forested Hillside	5-6	Hillside forest along north boundary of property	Fair
Spatial Organization				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SP - 01	Farm Yard	5-6	Farm courtyard enclosure formed by house, barn and vegetation	Good
SP - 02	Side Yard	5-6	Area enclosed by house, windbreak and road	Good
SP - 03	Open Field	5-6	Agricultural field enclosed by forest, road and windbreaks	Fair
Circulation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
C - 01	Driveway	5-6	Gravel driveway, 10'-12' width	Good
C - 02	Trail	5-6	Mown foot trail	Good
Structures and Small-Scale Features				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
S - 01	House	5-6		Good
S - 02	Barn	5-6		Good
S - 03	Root Cellar	5-6		Good
SS - 01	Park Sign	5-6	NPS site sign	Good
SS - 02	Boulder Edge	5-6	Small boulders lining the eastern edge of the driveway	Good
SS - 03	Septic Tank	5-6		Good
SS - 04	Foundation	5-6	Remnant foundation	Fair

Vegetation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
V - 01	Sugar Maple Row	5-6	Remnant row of trees along south side of M-22	Good
V - 02	Sugar Maple Row	5-6	Remnant row of trees along north side of M-22	Fair
V - 03	Sugar Maple Row	5-6	Remnant row of trees between field and house	Poor
V - 04	Windbreak	5-6	Conifer windbreak east of the driveway	Good
V - 05	Walnut Tree	5-6	Black walnut tree	Good
V - 06	Sugar Maple	5-6	Solitary sugar maple	Good
Views				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
VV - 01	View to Dechow Farmstead	5-6	View to Dechow farmstead	Good
VV - 02	View from M-22 Eastbound	5-6	View of Charles Olsen farm	Good

encroaching into the hillside and fields east of the house. The farmstead's two primary structures, the Charles Olsen house and red barn, have a distinct spatial relationship. The house faces south with the red barn located to its rear (to the north and west) and the barn's primary doors facing east. A foundation of an outbuilding is evident north of the barn. A conifer windbreak encloses the west edge of the farmstead yard and is oriented parallel to the barn. A few sugar maple trees line the eastern edge of the building complex, and groupings of smaller trees and shrubs extend to the south. This combination of buildings and plantings creates a unique farm yard arrangement of two fairly equal spaces, each enclosed on one edge by a structure and on another by vegetation. A gravel drive bisects the southernmost farm yard along the south side of the house and extends to a small rectangular area used for parking. A root cellar is located partway up the hillside in the hardwood forest. A narrow mown trail begins at the corner of the building complex and extends to the northwest, ultimately connecting to the Port Oneida schoolhouse and the Ridge Trail.

One of the most characteristic features of the Charles Olsen farm is the rows of mature sugar maple trees that line M-22. Domesticated plantings near and around the house include a black walnut tree in the center of the farmstead yard and conifer windbreaks which divide and mark the agricultural fields.

Views into the Charles Olsen farm from the south visually connect the farm to Port Oneida and provide an introduction to Port Oneida. Another important visual connection is between the Charles Olsen house and the Dechow farm.

Dechow Farm

The Dechow farm (Figure 5-8) is centrally located in the Port Oneida Rural Historic District at the intersection of M-22 and Port Oneida Road. The Dechow farm is the most visually prominent of all the farms in Port Oneida, easily viewed from both the east and west when traveling on M-22. The existing conditions of the Dechow farm described in this section are illustrated in Table 5-3, which provides detailed information on the individual cultural landscape features and their condition. Photographs illustrating the character of the farm are shown in Figures 5-9 and 5-10.

The Dechow farmstead is characterized by a central building cluster that is oriented toward M-22 and surrounded on three sides by broad open fields and pastures. A forested moraine and plantings of sugar maples provide a distinct backdrop to the farmstead. The Dechow house, together with the other outbuildings, creates an interior farm yard behind the house. The outbuildings include the granary/corn crib, brooder house, garage and chicken coop. The Dechow pasture barn is located to the east of the house and is highly visible from M-22. All structures were built within the period of significance, with the possible exception of the garage, whose exact construction date is unknown.

The fields and pastures extend from the house in the low lying and gently sloping area of Port Oneida. Several additional fields exist above and behind the building cluster on a sloping terraced area.

A long, narrow paved drive connects the building cluster to M-22 and to Port Oneida Road. Behind the building cluster are remnants of dirt, two-track farm roads that once connected the upper fields with the buildings. A concrete sidewalk extends off the back of the house, and a mown trail extends from the farm yard east to the pasture barn.

Dense rows of mature sugar maple trees delineate the open agricultural fields that are located southeast of the Dechow building cluster. The number of trees and the length of the dense rows are unique to the Dechow farm. A sugar shack is located at the southern end of the sugar maple row, sited above and on the topographic terrace well away from the building complex. Ornamental plantings occur within the building complex, including sugar maples that are located near the Dechow house. Four trees flank the house, and deciduous shrubs are located near the other structures. Two fruit trees are remnants of an orchard that was located just southeast of the farm yard.

Views of the Dechow farm occur from many roads in Port Oneida, from farms in the south central portion of Port Oneida, including Charles Olsen and Kelderhouse, from Port Oneida schoolhouse, and from Port Oneida cemetery.

Kelderhouse Farm

The Kelderhouse farm (Figure 5-11) is centrally located in Port Oneida, set just north of the intersection of M-22 and Port Oneida Road. Historically, the Kelderhouse farm served as the center of the community. It was once used as a grocery store, a post office, and telephone headquarters (McEnaney, *et. al.*, 1995). Two important historic sites are

Figure 5-8: Dechow Farm

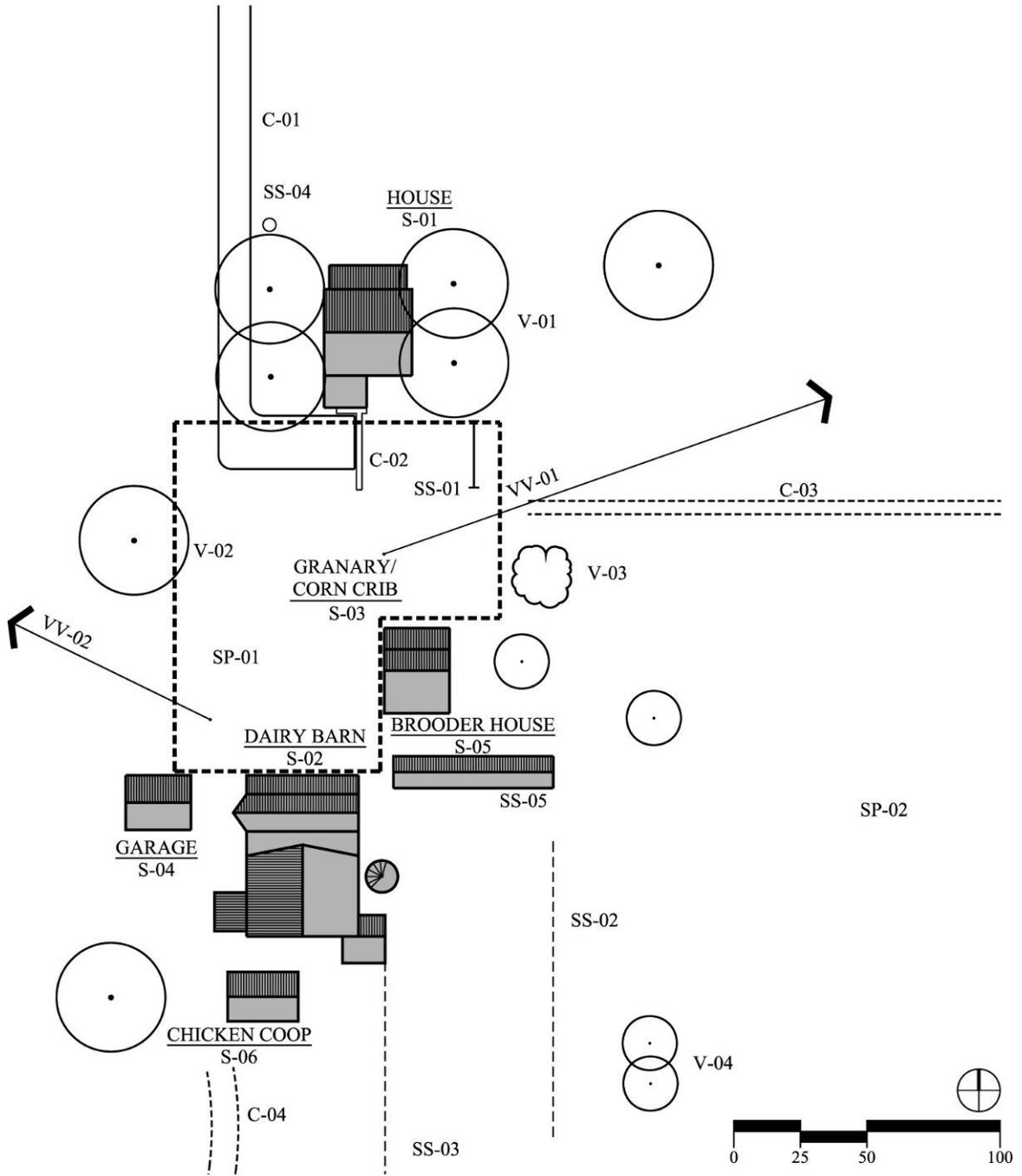


Table 5-3: Dechow Farm Existing Features

Spatial Organization				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SP - 01	Farmstead Courtyard	5-8	Area formed by arrangement of structures, plantings and field edges	Good
SP - 02	Open Fields	5-8	Open field areas, historically used pasture/ agriculture	Fair
Circulation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
C - 01	Driveway	5-8	Asphalt drive, 10'-12' width in historic alignment	Good
C - 02	Concrete sidewalks	5-8	Concrete sidewalk at southern side of house	Good
C - 03	Trail to Barn	5-8	Trail to pasture barn	Poor
C - 04	Remnant Road	5-8	Remnant grade of two-track road to upper fields	Poor
Structures and Small-Scale Features				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
S - 01	House	5-8		Good
S - 02	Dairy Barn	5-8		Fair
S - 03	Granary/Corn Crib	5-8		Fair
S - 04	Garage	5-8		Good
S - 05	Brooder House	5-8		Good
S - 06	Chicken Coop	5-8		Fair
SS - 01	Clothesline	5-8	Metal clothesline poles	Good
SS - 02	Extant Fence Line	5-8	Fence line running north-south from south side of brooder house, with metal gate at brooder house	Fair
SS - 03	Extant Fence Line	5-8	Fence line running north-south from south side of brooder house	Fair
SS - 04	Electric Pole	5-8		Good
SS - 05	Metal Gate	5-8	Metal pedestrian gate attached to brooder house	Good

Vegetation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
V - 01	Sugar Maples	5-8	4 sugar maples flanking house	Good
V - 02	Sugar Maples	5-8	Extant sugar maples	Good
V - 03	Lilac	5-8	Clump ornamental lilac planting	Fair
V - 04	Remnant Orchard	5-8	Remnant orchard trees	Poor
Views				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
VV - 01	View to Pasture Barn	5-8	View to pasture barn from farmstead	Good
VV - 02	View to Olsen Farm	5-8	View to Charles Olsen farm from Dechow farm	Good

Figure 5-9: Photographs – Dechow Farm



Dechow driveway from M-22 (JJR 2005)



Dechow driveway looking to M-22 (MBD 2005)



Dechow house with sugar maple plantings (JJR 2005)



Dechow sugar shack in upper field area (JJR 2005)

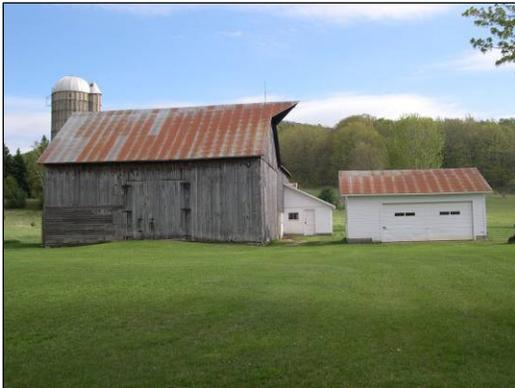
Figure 5-10: Photographs – Dechow Farm



Dechow, view to Charles Olsen farm
(MBD 2005)



Dechow, extant gate at brooder house
(MBD 2006)



Dechow barn and farm yard area (MBD 2006)

immediately adjacent to Kelderhouse farm – the Port Oneida cemetery to the south and the Port Oneida schoolhouse, formerly the Evangelical Lutheran Church that is across Port Oneida Road to the west (McEnaney, *et. al.*, 1995). Table 5-4 provides detailed information on the condition of the farm’s individual features. Photographs illustrating the character of the farm are shown in Figure 5-12 and 5-13.

Unlike the other farms under consideration for a visitor contact station, the entire Kelderhouse farm exists in the low-lying and gently sloping terrain of the south-central portion of Port Oneida. The building cluster is immediately adjacent to Port Oneida Road, which is lined with sugar maple trees. The Kelderhouse house faces Port Oneida Road and forms the southern edge of the farm yard. The northern edge is defined by a row of sugar maple trees. The eastern edge is less defined and consists of an open field

Figure 5-11: Kelderhouse Farm

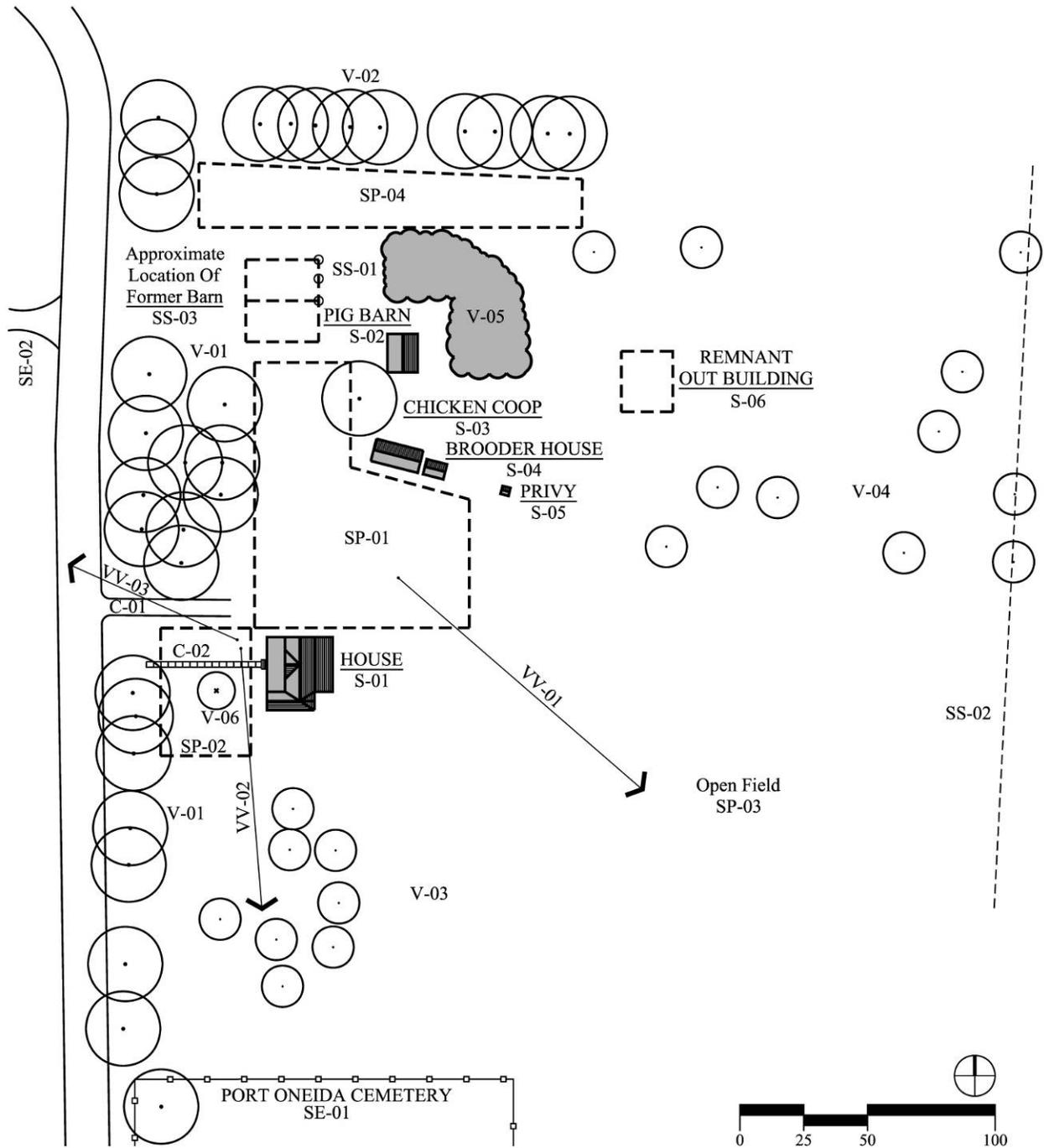


Figure 5-12: Photographs – Kelderhouse Farm



Kelderhouse sugar maples along Port Oneida Road
(MBD 2005)



Kelderhouse front yard with ornamental pine
planting and concrete sidewalk (JJR 2005)



Kelderhouse ,view to Port Oneida schoolhouse
(MBD 2005)



Kelderhouse, view to Dechow pasture barn
(MBD 2005)



Kelderhouse remnant orchard east of farm yard
(MBD 2005)



Kelderhouse remnant orchard south of house
with view to cemetery (MBD 2006)

Figure 5-13: Photographs – Kelderhouse Farm



Kelderhouse north farm yard area (MBD 2005)



Kelderhouse brooder house, chicken coop, and privy (MBD 2005)

Table 5-4: Kelderhouse Farm Existing Features

Setting				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SE-01	Port Oneida Cemetery	5-11	Historic adjacent land use	Good
SE-02	Port Oneida schoolhouse	5-11	Historic adjacent structure	Good
Spatial Organization				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
SP - 01	Farmstead Courtyard	5-11	Farmstead courtyard formed by vegetation, house, and structures	Fair
SP - 02	Front Yard	5-11	Front yard formed by vegetation, house, driveway and remnant orchard	Fair
SP – 03	Open Fields	5-11	Open field areas, historically used pasture/ agriculture	Good
SP – 04	Farmstead Yard	5-11	Area enclosed by sugar maples, remnant foundation and vegetation	Good
Circulation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
C – 01	Driveway – gravel	5-11	Historic driveway	Fair
C – 02	Concrete Sidewalk	5-11	Sidewalk leading to front door of house from Port Oneida Road	Good

Structures and Small-Scale Features				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
S - 01	House	5-11		Fair
S - 02	Pig Barn	5-11		Fair
S - 03	Chicken Coop	5-11		Fair
S - 04	Brooder House	5-11		Fair
S - 05	Privy	5-11		Fair
S - 06	Remnant Outbuilding	5-11		
SS - 01	Stone Barn Corners	5-11	Large, extant boulders, remnant barn foundation	Fair
SS - 02	Fence Line	5-11	Remnant fence line	Fair
SS - 03	Barn Excavation	5-11	Disturbed area, former barn location	Fair
Vegetation				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
V - 01	Sugar Maple Rows	5-11	Trees along Port Oneida Road	Good
V - 02	Sugar Maple Row	5-11	Trees along northern edge	Good
V - 03	Remnant Orchard	5-11	Trees planted in rows	Poor
V - 04	Remnant Orchard	5-11	Trees planted in a loose orchard arrangement	Poor
V - 05	Tree Grove Behind Pig Barn	5-11	Variety of naturalized tree species	
V-06	Pine Tree	5-11	Large pine planted in front of house	Good
Views				
<i>Number</i>	<i>Feature</i>	<i>Figure Number</i>	<i>Description</i>	<i>Condition</i>
VV - 01	View to Dechow Pasture Barn	5-11		Good
VV - 02	View to Port Oneida Cemetery	5-11		Good
VV - 03	View to Port Oneida schoolhouse	5-11		Good

delineated by a fence. Remnant orchards, thought to have been planted in the 1920s (McEnaney, *et al.*, 1995), are located east of the building complex beyond the fence and to the south of the farm yard.

In addition to the house, other buildings include a pig barn, chicken coop, brooder house and privy. The Kelderhouse barn was originally located north of the house. A depression remains from the barn along with several extant stone barn corners. The Kelderhouse farm is visually connected to the Dechow pasture barn, Port Oneida schoolhouse and the adjacent Port Oneida cemetery.

5.2.3. Structures

Structures in the Port Oneida Rural Historic District are all associated with either farm life, activities or community. With the exception of the North Unity School, all NPS-owned structures are part of farms. Structures at a farmstead typically consist of a residence and agricultural outbuildings. There are approximately 110 structures in the project area ranging in size from small privies to large barns. These structures are wood or timber framed with foundations that are stone block walls or concrete piers. Structures also have either full basements or crawl spaces, or are constructed on grade.

Some extant structures have been modified and “modernized,” but not to the extent that changes are irreversible. In general, structures in Port Oneida retain a high degree of integrity.

Structures in the park are managed by the park based on periodic condition assessments carried out by park staff. Condition assessments are carried out on two levels:

- A comprehensive assessment is carried out every five years based on detailed inspections of structures.
- An annual condition assessment occurs yearly to note general conditions of buildings using the five-year assessment as a basis, with updates based on general observations, and factors including maintenance work that has been carried out over the past year, and knowledge of ongoing activities and changing conditions at the structures.

For the purposes of this report, the structures that were evaluated were those listed in the book *Farming at the Water's Edge* (McEnaney, et. al., 1995) that are still extant. Only structures were evaluated; therefore, some small built “objects” at the farm sites were omitted, as were those that were not in the immediate vicinity of the major farmstead buildings in the farm yard area. Conditions in this report were based on the project team’s evaluation of the conditions of structures, supplemented by consultation with park staff, and information contained in the List of Classified Structures. The List of Classified Structures is a computerized inventory of all historic and prehistoric structures in which the NPS has, or plans to acquire, legal interest. In some cases, the project team’s assessment differed from those contained in the List of Classified Structures. This is due in part to conditions that may have changed since the most recent park assessment, as well as differing criteria for evaluation.

For the purposes of this report, the following evaluation criteria were used by the project team:

- **Good** – Conditions include weathertight, watertight, in a good state of repair, structurally sound, exterior features and finishes in good condition, sound roofing, intact windows, sound exterior enclosure envelope, and ready for immediate human habitation (for habitable structures), or ready for immediate use as originally intended (if not for human habitation).
- **Fair** – Conditions may include minor limited water penetration locations; limited broken or cracked windows; severely deteriorated exterior features or

finishes; or roofing intact, but near end of life expectancy. Fair structures are generally structurally sound, but may have some minor non-threatening structural deterioration. Fair structures may be suitable for human habitation with some rehabilitation. Fair structures not intended for human habitation may be suitable for utilitarian use with some repairs.

- **Poor** – Conditions may include those that are a threat to public safety, major failure of roofing or exterior closure, widespread failure of siding or cladding materials, structural deterioration, major settling, major gaps in foundations or walls that could admit weather and wildlife, locations of major moisture penetration, or significant interior deterioration. Poor structures intended for human habitation would require extensive repairs to be occupied. Structures in poor condition that are not intended for human habitation would require extensive repairs to permit utilitarian use.

Of the 68 structures evaluated by the project team, 16 were in good condition, 51 were in fair condition, and 1 was in poor condition.

5.3. VISITOR USE AND EXPERIENCE

Currently, visitors to the Port Oneida Rural Historic District must obtain information and a map for Port Oneida from the Philip A. Hart Visitor Center located in Empire. The Charles Olsen farm is currently being used as a partner site by Preserve Historic Sleeping Bear. They provide interpretive materials through exhibits and field guides available at the farm. The house at the farmstead is open to the public at varying hours. The park also holds the annual Port Oneida Fair annually during the summer. This event is held at several farms in Port Oneida and provides educational and interpretive opportunities highlighting the history of Port Oneida.

Visitor facilities within Port Oneida consist of two parking lots at trailheads for the Bayview Trail and Pyramid Point. Hiking trails can be accessed from these trailheads and at other locations throughout Port Oneida. Visitors can access the publicly owned farms within the park, but the buildings are locked. A vault toilet is located at the Pyramid Point parking lot. A privy is located at the Port Oneida schoolhouse; however, this is owned and operated by the school district. County-owned and operated facilities include a pull-off located along Basch Road overlooking Vacation Valley and a picnic area at the corner of Basch Road and M-22.

5.4. PARK FACILITIES AND OPERATIONS

Currently, facilities within Port Oneida that are owned and operated by the park consist of two parking lots at the Bayview and Pyramid Point trailheads, a vault toilet at the Pyramid Point parking lot, hiking trails, and the structures at the various farms. The park maintains and operates these facilities in accordance with the *General Management Plan* (NPS, 1979). The associated historic agricultural landscape within Port Oneida is managed according to the recommendations in the draft *Landscape Management Plan: Port Oneida Rural Historic District* (1999b).

Roads within Port Oneida are county roads and administered by the Leelanau County Road Commission. M-22 is paved, providing access throughout Port Oneida from the southwest to the northeast. Port Oneida Road parallels the Lake Michigan shoreline, and secondary roads follow the ridgelines in the forested moraines.

6.0 ENVIRONMENTAL CONSEQUENCES

A determination of the probable consequences (or impacts) of each alternative on park resources was made in accordance with the National Environmental Policy Act. The effects to historic resources are considered in accordance with the National Historic Preservation Act (NHPA). The analysis for each impact topic includes identification of impacts of the various actions comprising the alternative, characterization of the impacts, an assessment of cumulative impacts, and a conclusion.

6.1 METHODOLOGY

For each impact topic, the analysis includes an evaluation of effects as a result of implementing each alternative (1-5) discussed in Section 2. The impact analyses were based on professional judgment using information provided by park staff, relevant references and technical literature citations, and subject matter experts. Evaluation of alternatives takes into account whether the impacts would be negligible, minor, moderate, or major. These thresholds are defined for each impact topic.

Duration of impacts is evaluated based on the short-term or long-term nature of alternative-associated changes on existing conditions. Type of impact refers to the beneficial or adverse consequences of implementing a given alternative. Context is the affected environment within which an impact, such as local, park-wide, or regional. More exact interpretations of intensity, duration, context, and type of impact are given for each impact topic examined.

6.2 CUMULATIVE IMPACTS

The Council on Environmental Quality (CEQ, 1978) regulations for implementing the National Environmental Policy Act and NPS Director's Order (DO) 12, *Conservation Planning, Environmental Impact Analysis, and Decision Making* (2001) require assessment of cumulative effects in the decision-making process for federal projects. Cumulative effects are considered for both the no action and proposed action alternatives.

Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other past, ongoing, or reasonably foreseeable future actions at Sleeping Bear Dunes National Lakeshore and in the surrounding region. These other actions in conjunction with this project are intended to preserve and restore cultural resources and to improve visitor experience. These actions include:

Completed

- 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 Michigan Heritage Route Program, created by the Public Act 69 of 1993, is designed to identify, inventory, protect, enhance, and in some cases, promote state

trunklines and adjacent land with distinctive or unique scenic, cultural, or historic qualities. A Scenic Heritage Route is a state highway having outstanding natural beauty.

Ongoing/Future

- Creation of the Leelanau Scenic Heritage Trailway from the Benzie/Leelanau County line to Lake Michigan Road – County Road 651. A non-motorized trailway would be constructed as a separate path from M-22. The trail would provide pedestrians and bicyclists opportunities to safely travel along M-22, separate from motor vehicles, and throughout Sleeping Bear Dunes National Lakeshore.
- Stabilize and rehabilitate buildings in Glen Haven Village Historic District. The primary goal of the project is to provide basic infrastructure upgrades within the Glen Haven Village to accommodate expanded interpretive and water-related recreational opportunities. The implementation of proposed improvements in the Glen Haven Village Historic District will allow visitors to park in one or more locations and safely walk to the various points of destination.

6.3 IMPAIRMENT OF PARK RESOURCES

National Park Service *Management Policies 2006* (NPS, 2006b) requires analysis of potential effects to determine whether or not actions would impair park resources or values. The impairment that is prohibited by the Organic Act is an impact that “would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values.” The determination as to whether an impact meets this definition of impairment depends on the following: the resource(s) affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in concert with other impacts.

An impact to any park resource may constitute impairment. An impact would be more likely to result in impairment if it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the park’s *General Management Plan* or other relevant NPS planning documents.

A determination on impairment is included in the impact analysis section for all impact topics relating to park resources and values.

6.4 ECOLOGICAL RESOURCES

Intensity

- **Negligible:** Ecological resources (flora and wildlife) would not be affected or the effect would be localized and not detectable or at the lowest levels of detection.

- **Minor:** The effect would be localized and slightly detectable, but would not affect the overall structure of any natural community. If mitigation was needed to offset adverse effects, it would be relatively simple and likely successful.
- **Moderate:** The effect would be clearly detectable. Impacts would include direct loss of individual species, or communities, and/or interruption of natural processes. Mitigation measures would probably offset adverse effects and would likely be successful.
- **Major:** The effect is highly noticeable and would have a substantial influence on natural resources, including effects on individuals or groups of species, communities, and/or natural processes. Mitigation measures to offset the adverse effects would be required, extensive, and success of the mitigation measures would not be guaranteed.

Duration

- **Short-term:** Following treatment, recovery would take less than one year.
- **Long-term:** Following treatment, recovery would take longer than one year.

Alternative 1: No Action Alternative

Under the No Action Alternative, the park would continue with the current management activities occurring in Port Oneida. The park maintains and operates its facilities in accordance with the *General Management Plan* (NPS, 1979). The draft *Landscape Management Plan: Port Oneida Rural Historic District* (1999b) is used as a guideline for management of the open fields within Port Oneida. Proposed management activities include mowing, hand cutting and prescribed burns with detailed recommendations identified in the plan for each farm. Currently, very little active management takes place with the exception of mowing at the farms used as host sites for the Port Oneida Fair (Thoreson, Charles Olsen, Dechow, Kelderhouse, John Burfiend barn).

Implementation of the No Action Alternative would not result in new routine management activities in Port Oneida. Vegetative growth would continue a successional trend to overtake cultural landscapes, and invasive plants would continue to threaten native plant and animal communities. This would produce localized long-term minor adverse impacts.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, and improved pedestrian safety, and would stabilize critical historic structures. Improvements would also focus on controlled access to the beach by use of boardwalks, sand dune reconstruction, and dune stabilization with native beach grass plantings and seeding. These improvements would provide a minor beneficial impact on ecological resources. Creation of the Leelanau Scenic Heritage Trailway would introduce new visitors, either walking or biking, that could introduce invasive vegetative species within the park. This would result in negligible adverse impacts. Overall, these actions

would result in negligible beneficial impacts to natural resources. The No Action Alternative in combination with these other actions would result in long-term minor adverse park-wide impacts.

Conclusions. The No Action Alternative would result in long-term minor adverse effects on ecological resources due to a successional change in old field plant species, a continued spread of invasive species, and the associated impact on wildlife habitat.

Impairment. There would be no impairment of park resources or values.

Alternative 2 – Carsten Burfiend

Under Alternative 2, a new visitor contact station would be located at the Carsten Burfiend farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area (Figure 2-3). The visitor contact station would provide internal and external interpretive graphics and informational and orientation materials. Circulation within Port Oneida would be improved by providing additional parking, roadside pull-offs, and an improved trail system. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to rehabilitate the landscape. Staff housing would be located at the Peter Burfiend farm, with no alterations occurring to the landscape.

An adverse impact of locating the visitor contact station at Burfiend would be associated with conversion of a small area of existing open field to parking for 8-10 cars. The open fields in Port Oneida are known to serve as habitat for meadow wildlife, especially grassland nesting birds. The farm site contains no noteworthy vegetation, wildlife habitat or threatened and endangered species. Construction of the parking lot along with development of mowed trails and roadside pull-offs in Port Oneida provides the opportunity for introduction of invasive species through improved visitor access. These areas would have to be monitored to ensure that invasive species do not become established. Alternative 2 would result in localized long-term minor adverse effects due to limited displacement of old field wildlife species and the potential for introduction of invasive species along mowed trails and roadside pull-offs. There would be no impacts to ecological resources as a result of locating staff housing at the Peter Burfiend farm.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, and improved pedestrian safety, and would stabilize critical historical structures. Improvements would also focus on controlled access to the beach by use of boardwalks, sand dune reconstruction, and dune stabilization with native beach grass plantings and seeding. These improvements would have would provide a minor beneficial impact on ecological resources. Creation of the Leelanau Scenic Heritage Trailway would introduce new visitors, either walking or biking, that could introduce invasive vegetative species within the park. This would result in negligible adverse impacts. Overall, these

actions would result in negligible beneficial impacts to natural resources. Alternative 2 in combination with these other actions would result in long-term minor adverse park-wide impacts.

Conclusions. Implementation of Alternative 2 would result in localized long-term minor adverse effects due to limited displacement of old field wildlife species and the potential for introduction of invasive species along mowed trails and roadside pull-offs.

Impairment. There would be no impairment of park resources or values.

Alternative 3 – Charles Olsen

Under Alternative 3, a new visitor contact station would be located at the Charles Olsen farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area (Figure 2-5). As with the Carsten Burfiend alternative, the visitor contact station would provide internal and external interpretive graphics, and informational and orientation materials. Circulation within Port Oneida would be improved by providing additional gravel parking, roadside pull-offs, and an improved trail system. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to rehabilitate the landscape. Staff housing would be located at the Goffar farm, with no alterations occurring to the landscape.

Visitor contact station parking at the Charles Olsen farm would be located in a mowed area across the driveway. The farm site contains no noteworthy vegetation, wildlife habitat or threatened and endangered species. Construction of the parking lot along with development of mowed trails and roadside pull-offs in Port Oneida provides the opportunity for introduction of invasive species through improved visitor access. These areas would have to be monitored to ensure that invasive species do not become established. Implementation of Alternative 3 would result in localized long-term minor adverse effects due to the potential for introduction of invasive species along mowed trails and roadside pull-offs, and from increased visitor access. There would be no impacts to ecological resources as a result of locating staff housing at the Goffar farm.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, and improved pedestrian safety, and would stabilize critical historical structures. Improvements would also focus on controlled access to the beach by use of boardwalks, sand dune reconstruction, and dune stabilization with native beach grass plantings and seeding. These improvements would provide a minor beneficial impact on ecological resources. Creation of the Leelanau Scenic Heritage Trailway would introduce new visitors, either walking or biking, that could introduce invasive vegetative species within the park. This would result in negligible adverse impacts. Overall, these actions

would result in negligible beneficial impacts to natural resources. Alternative 3 in combination with these other actions would result in long-term minor adverse park-wide impacts.

Conclusions. Implementation of Alternative 3, Charles Olsen, would result in long-term minor adverse effects due to the potential for introduction of invasive species along mowed trails and roadside pull-offs and from increased visitor access.

Impairment. There would be no impairment of park resources or values.

Alternative 4 – Dechow

Under Alternative 4, a new visitor contact station would be located at the Dechow farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area (Figure 2-7). The visitor contact station would provide internal and external interpretive graphics and informational and orientation materials. Circulation in Port Oneida would be improved by providing additional parking, roadside pull-offs, and an improved trail system. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to rehabilitate the landscape. Staff housing would be located at the Peter Burfiend farm, with no alterations occurring to the landscape.

Visitor contact station parking at the Dechow farm would be located in an old field area behind the barns. The farm site contains no noteworthy vegetation, wildlife habitat or threatened and endangered species. Construction of the parking lot along with development of mowed trails and roadside pull-offs in Port Oneida provides the opportunity for introduction of invasive species through improved visitor access. These areas would need to be monitored to ensure that invasive species do not become established. Alternative 4, Dechow, would result in localized long-term minor adverse effects due to the potential for introduction of invasive species along mowed trails and roadside pull-offs, and increased visitor access. There would be no impacts to ecological resources as a result of locating staff housing at the Peter Burfiend farm.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, and improved pedestrian safety, and would stabilize critical historical structures. Improvements would also focus on controlled access to the beach by use of boardwalks, sand dune reconstruction, and dune stabilization with native beach grass plantings and seeding. These improvements would provide a minor beneficial impact on ecological resources. Creation of the Leelanau Scenic Heritage Trailway would introduce new visitors, either walking or biking, that could introduce invasive vegetative species within the park. This would result in negligible adverse impacts. Overall, these actions

would result in negligible beneficial impacts to natural resources. Alternative 4 in combination with these other actions would result in long-term minor adverse park-wide impacts.

Conclusions. Implementation of Alternative 4, Dechow, would result in long-term minor adverse effects due to the potential for introduction of invasive species along mowed trails and roadside pull-offs and increased visitor access.

Impairment. There would be no impairment of park resources or values.

Alternative 5 – Kelderhouse (Preferred Alternative)

Under Alternative 5, a new visitor contact station would be located at the Kelderhouse farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area (Figure 2-9). The visitor contact station would provide internal and external interpretive graphics and informational and orientation materials. Circulation in Port Oneida would be improved by providing additional parking, roadside pull-offs, and an improved trail system. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to restore the landscape. Staff housing would be located at the Carsten Burfiend farm, with no alterations occurring to the landscape.

Visitor contact station parking at Kelderhouse would be located in a currently mowed area. The farm site contains no noteworthy vegetation, wildlife habitat or threatened and endangered species. Other aspects of this alternative include development of mowed trails and roadside pull-offs in Port Oneida. These elements along with construction of the parking lot provide the opportunity for introduction of invasive species through improved visitor access. These areas would need to be monitored to ensure that invasive species do not become established. Alternative 5, Kelderhouse, would result in localized long-term minor adverse effects due to the potential for introduction of invasive species along mowed trails and roadside pull-offs and improved visitor access. There would be no impacts to ecological resources as a result of locating staff housing at the Carsten Burfiend farm.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, and improved pedestrian safety, and would stabilize critical historical structures. Improvements would also focus on controlled access to the beach by use of boardwalks, sand dune reconstruction, and dune stabilization with native beach grass plantings and seeding. These improvements would provide a minor beneficial impact on ecological resources. Creation of the Leelanau Scenic Heritage Trailway would introduce new visitors, either walking or biking, that could introduce invasive vegetative species within the park. This would result in negligible adverse impacts. Overall, these actions

would result in negligible beneficial impacts to natural resources. Alternative 4 in combination with these other actions would result in long-term minor adverse park-wide impacts.

Conclusions. Implementation of Alternative 5, Kelderhouse, would result in long-term minor adverse effects due to the potential for introduction of invasive species along mowed trails and roadside pull-offs and improved visitor access.

Impairment. There would be no impairment of park resources or values.

6.5 CULTURAL RESOURCES

Intensity

- **Negligible:** Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for Section 106 would be *no adverse effect*.
- **Minor:** Adverse impact – alteration of a feature(s) or landscape pattern(s) would not diminish the overall integrity of the resource (structure or landscape). The determination of effect for Section 106 would be *no adverse effect*.
- **Moderate:** Adverse impact - Alteration of a feature(s) or landscape pattern(s) would diminish the overall integrity of the resource (structure or landscape). The determination of effect for §106 would be *adverse effect*. A memorandum of agreement (MOA) is executed among the NPS and applicable state or tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). Measures identified in the MOA to minimize or mitigate adverse impacts reduce the intensity of impact under NEPA from major to moderate.
- **Major:** Adverse impact – Alteration of a feature(s) or landscape pattern(s) would diminish the overall integrity of the resource (structure or landscape). The determination of effect for Section 106 would be *adverse effect*. Measures to minimize or mitigate adverse impacts cannot be agreed upon, and the NPS and applicable state or tribal historic preservation officer and/or advisory council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).

Duration

- **Short-term:** The impact lasts only during construction or less than two years following construction.
- **Long-term:** The impact would be semi-permanent to permanent post-construction changes.

Port Oneida Rural Historic District is listed on the National Register of Historic Places. The protection of cultural resources is important to the character and status of Port Oneida. This section evaluates the five proposed alternatives and provides an assessment of the impacts that each alternative would have on the cultural landscapes and structures of Port Oneida. The basis of analysis for evaluating the impacts of each alternative is as follows:

- *The Secretary of Interior Standards for the Treatment of Historic Properties* for the preservation of historic resources (NPS, 1992).
- *Guidelines for the Treatment of Cultural Landscapes* for the preservation of cultural landscape features (NPS, 1996).

6.5.1 Cultural Landscapes

Alternative 1: No Action Alternative

Under the No Action Alternative, visitors would continue to visit and interpret the Port Oneida farms and landscape on their own or as part of site tours and events. Under the No-Action Alternative, housing would remain at the Dechow farm and the Preserve Historic Sleeping Bear offices would remain at the Charles Olsen farm functioning as an informal visitor center. Overall maintenance in Port Oneida would continue at current levels. An adverse effect is not inherent in the No Action Alternative; however, the structures and spatial organization (open fields) of the historic landscape could be at risk without a program to provide greater guidance for maintenance, stabilization, and restoration of the buildings and landscape of Port Oneida.

Parking would remain informal at individual farms with motorists parking along the road, in the driveways, and farmstead courtyard areas. Vegetation patterns and plantings (orchards, windbreaks, sugar maple rows and ornamental plantings) would continue to deteriorate. The No Action Alternative would result in a localized long-term minor adverse impact on cultural landscapes.

Cumulative Effects. The Leelanau Scenic Heritage Trailway along M-22 would be a non-compatible feature added to the cultural landscape. It would visually widen the road corridor and could impact individual landscape characteristics including sugar maple rows and windbreaks. The proposed addition of the trailway along M-22 would have a long-term minor adverse impact.

The designation of M-22 as a Scenic Heritage Route offers protection of the historic road corridor and improves awareness of the historic landscape by visitors, providing a long-term minor beneficial effect to the cultural landscape.

These actions when combined with the No Action Alternative would result in cumulative long-term, minor adverse park-wide impacts to cultural landscapes.

Conclusion. The No Action Alternative would have an overall long-term minor adverse impact on cultural landscapes.

Impairment. There would be no impairment of park resources and values.

Alternative 2 – Carsten Burfiend

Alternative 2 would increase visitor use to the Carsten Burfiend farm by the addition of a visitor contact station and associated facilities at the west building cluster. Improvements to the historic Burfiend house (north house) would rehabilitate the house for adaptive

reuse as the visitor contact station. Rehabilitation would strengthen the structure's role in depicting the character of the farmstead. Providing a visitor contact station would allow visitors to receive information regarding the cultural landscape, and its relationship to Lake Michigan. In order for the house to be used by visitors, modifications would be required to make the structure ADA compliant and accessible to the public. These modifications would introduce new modern elements to the house that are outside of the period of significance. The use of the Burfiend house (north house) would result in an adverse impact due to the modifications required to make the structure ADA compliant and accessible to the public. The addition of the associated facilities – gravel visitor parking lot (10 to 20 cars), site signage, pedestrian paths, and an overlook along the bluff – would have an adverse impact primarily due to the location of the parking in what is currently an old field. This would impact historic landscape patterns and views of the cultural landscape from Port Oneida Road.

The Peter Burfiend house would also be rehabilitated for use as staff housing, a compatible use. Rehabilitation would include exterior restoration and interior rehabilitation that would extend the longevity of the historic structure and strengthen the structure's role in depicting the character of the farmstead. This would have a beneficial impact, as it would rehabilitate an important historic structure and would provide a compatible use.

The preservation and rehabilitation of ornamental plantings and select conifer windbreaks, thinning of trees along the Lake Michigan bluff to restore views to the lake, and vegetation management in the old fields as described in the draft *Landscape Management Plan* (NPS, 1999b) would have a beneficial effect as these actions would assist in preserving the historic setting.

Under Alternative 2, small parking lots for visitor access at the Eckhert/Olsen and Kelderhouse farms and several roadside pull-offs would have an adverse impact to the cultural landscape. However, the impact would be negligible since these would be modest in size and would be sited to be compatible with the historic patterns on the each farm. Implementation of Alternative 2, Carsten Burfiend, would have a localized long-term, negligible adverse impact on cultural landscapes.

Cumulative Effects. The proposed Leelanau Scenic Heritage Trailway along M-22 would be a non-compatible feature added to the cultural landscape. It would visually widen the road corridor and could impact individual landscape characteristics including sugar maple rows and windbreaks. The proposed addition of the trailway along M-22 would have a long-term minor adverse impact.

The designation of M-22 as a Scenic Heritage Route offers protection of the historic road corridor and improves awareness of the historic landscape by visitors, resulting in a long-term minor beneficial effect to the cultural landscape.

These actions when combined with the recommendations of Alternative 2 would result in a cumulative long-term negligible beneficial park-wide effect to cultural landscapes.

Conclusion. Alternative 2, Carsten Burfiend, would have an overall long-term, negligible adverse impact on cultural landscapes.

Impairment. There would be no impairment of park resources and values.

Alternative 3 – Charles Olsen

Under Alternative 3, the visitor contact station and associated facilities would be located at the Charles Olsen farm, prominently sited along M-22 and one of the most recognizable and visible historic landscapes in Port Oneida.

The adaptive re-use of the Charles Olsen house as the visitor contact station would include improvements for ADA accessibility that would be integrated with the historic building. These improvements would have an adverse impact on the cultural landscape. The adaptive re-use of the historic landscape would include a 10- to 20-space gravel parking lot within the building cluster area, visible from M-22. New pedestrian paths and a trailhead would follow the patterns of the historic landscape. The additions to the historic landscape would have an adverse impact due to the new parking lot, which would diminish the integrity of the farmstead by displacing an open area in the building cluster and due to its visibility from M-22.

The rehabilitation of the Goffar house for use as staff housing would have a beneficial effect as it would rehabilitate a historic structure and would provide a compatible use.

Alternative 3 would involve the preservation and rehabilitation of ornamental plantings, including sugar maple rows, shrub plantings and conifer windbreaks, and vegetation management in the old fields near the building cluster and along Port Oneida Road and M-22. These actions would preserve Port Oneida's historic setting and reestablish significant visual connections with adjacent farms. These improvements would result in a beneficial effect.

Under Alternative 3, visitor access would be accommodated by the addition of small parking lots at the Eckhert/Ole Olsen, Kelderhouse and Burfiend farms, and by the addition of roadside pull-offs in Port Oneida. These additions would be sited to be compatible with the historic patterns on the each farmstead, resulting in an adverse impact to the cultural landscape. Implementation of Alternative 3 would have an overall localized long-term, minor adverse impact on cultural landscapes.

Cumulative Impacts. The proposed Leelanau Scenic Heritage Trailway along M-22 would be a non-compatible feature added to the cultural landscape. It would visually widen the road corridor and could impact individual landscape characteristics including sugar maple rows and windbreaks. The proposed addition of the trailway along M-22 would have a long-term minor adverse impact.

The designation of M-22 as a Scenic Heritage Route offers protection of the historic road corridor and improves awareness of the historic landscape by visitors, resulting in a long-term minor beneficial effect to the cultural landscape.

These actions when combined with the recommendations of Alternative 3 would result in a cumulative long-term, negligible adverse park-wide impact to cultural landscapes.

Conclusion. Alternative 3, Charles Olsen would have an overall long-term, minor adverse impact on the cultural landscapes.

Impairment. There would be no impairment of park resources and values.

Alternative 4 – Dechow Farm

In Alternative 4, the visitor contact station and associated facilities would be located at the Dechow farm, a prominent and recognizable farm in Port Oneida. Dechow farm is highly visible to visitors traveling on M-22, and the house and pasture barn are two of the most recognized buildings in Port Oneida.

The adaptive re-use of the Dechow House as the visitor contact station would include improvements for handicap accessibility that would be integrated with the historic building. These improvements would have an adverse impact on the cultural landscape as the result of adding a non-compatible feature to the building. The adaptive re-use of the historic landscape would include widening the driveway, a new driveway along the western border of the building cluster, a new 10- to 20-space gravel parking lot south of the building cluster, and new pedestrian paths. The new features diminish the integrity of the cultural landscape by interrupting the patterns and the spatial organization of the historic landscape, and diminish the views to and from the Dechow farm, particularly from M-22 and nearby farms such as Charles Olsen and Kelderhouse. These modifications would have an adverse impact on the cultural landscape.

The rehabilitation of the Peter Burfiend house for use as staff housing would have a beneficial effect as it would rehabilitate an important historic structure and would provide a compatible use.

The preservation and rehabilitation of ornamental plantings, including sugar maple rows, shrub plantings, orchards and conifer windbreaks, and vegetation management in the old fields near the building cluster and along Port Oneida Road and M-22 would have a beneficial effect. These actions would preserve Port Oneida's historic setting and reestablish significant visual connections to adjacent farms.

Under Alternative 4, small parking lots for visitor access would be located at the Eckhert/Ole Olsen, Kelderhouse and Burfiend farms, and several roadside pull-offs would be located within Port Oneida. They would be modest in size and would be sited to be compatible with the historic patterns on each farm, which would result in an adverse impact. Implementation of Alternative 4 would have an overall localized long-term minor adverse impact on cultural landscapes.

Cumulative Impacts. The proposed Leelanau Scenic Heritage Trailway along M-22 would be a non-compatible feature added to the cultural landscape. It would visually widen the road corridor and could impact individual landscape characteristics including sugar maple rows and windbreaks. The proposed addition of the trailway along M-22 would have a long-term minor adverse impact.

The designation of M-22 as a Scenic Heritage Route offers protection of the historic road corridor and improves awareness of the historic landscape by visitors, resulting in a long-term minor beneficial effect to the cultural landscape.

These actions when combined with the recommendations of Alternative 4 would result in a cumulative long-term, negligible adverse park-wide impact to cultural landscapes.

Conclusion. Alternative 4 would have an overall long-term minor adverse impact on the cultural landscape.

Impairment. There would be no impairment of park resources and values.

Alternative 5 – Kelderhouse (Preferred Alternative)

The Kelderhouse farm is located just north of the intersection of M-22 and Port Oneida Road, easily accessible to visitors and centrally located to the other farms in Port Oneida. Under Alternative 5, the visitor contact station and associated facilities would be located at the Kelderhouse farm.

The rehabilitation and adaptive re-use of the Kelderhouse house as the visitor contact station would have an adverse impact on the cultural landscape, since the improvements for accessibility would be integrated with the historic building. The adaptive re-use of the Kelderhouse historic landscape would have an adverse impact, as the modifications would be integrated with the patterns of the historic landscape, and the new gravel parking lot would be sited along these patterns in an area at the northern end of the farm yard, separated from the house and screened by a prominent row of sugar maples.

The rehabilitation of the Carsten Burfiend house for use as staff housing would have a beneficial effect, as it would rehabilitate an important historic structure and would provide a compatible use.

The preservation and rehabilitation of ornamental plantings, including sugar maple rows, shrub plantings, remnant orchards and conifer windbreaks, and the vegetation management in the old fields near the building cluster and along Port Oneida Road and M-22 would have a beneficial effect. These actions would preserve Port Oneida's historic setting and re-establish significant visual connections to adjacent farms.

Under Alternative 5, small parking lots for visitor access would be located at the Carsten Burfiend and Eckhert/Ole Olsen farms and several roadside pull-offs would be located within Port Oneida. These modifications would have an adverse impact. The impact would be negligible, since these would be modest in size and would be sited to be

compatible with the historic patterns on each farmstead. Implementation of Alternative 5 would have an overall localized long-term negligible adverse impact on cultural landscapes.

Cumulative Impacts. The proposed Leelanau Scenic Heritage Trailway along M-22 would be a non-compatible feature added to the cultural landscape. It would visually widen the road corridor and could impact individual landscape characteristics including sugar maple rows and windbreaks. The proposed addition of the trailway along M-22 would have a long-term minor adverse impact.

The designation of M-22 as a Scenic Heritage Route would have a long-term minor beneficial impact to the cultural landscape, as it offers additional protection of the historic road corridor and improves awareness of the historic landscape by visitors.

These actions when combined with the recommendations of Alternative 5 would result in a cumulative long-term, negligible adverse park-wide impact to cultural landscapes.

Conclusion. Alternative 5 would have an overall long-term negligible adverse impact on cultural landscapes.

Impairment. There would be no impairment of park resources and values.

6.5.2 Structures

Alternative 1 – No Action Alternative

Under the No Action Alternative, structures would continue to be treated as they are today. Structures would continue to be stabilized as funds become available through a variety of NPS fund sources. Volunteer programs, such as barn restoration workshops, would continue to supplement funds for stabilization of some structures.

Funding for structural stabilization would be unpredictable, and stabilization may not keep up with need. The Martin Basch house, which is currently in poor condition, would not be immediately stabilized. Other structures in need of stabilization would not be treated until funding is available. In general, structures would continue in a gradual state of decline. If structures continue to deteriorate, some structures may eventually collapse and resources in Port Oneida would be lost.

The No Action Alternative would result in a localized long-term moderate adverse impact on structures by permitting stabilization of only limited structures and resulting in the possible continued deterioration of others.

Cumulative effects. Other plans and actions occurring in the park to protect or improve structures include a proposed project in the Glen Haven Village Historic District, which would stabilize structures there, as well as ongoing repair and stabilization of structures throughout Sleeping Bear Dunes National Lakeshore. These improvements would protect the park's inventory of structures, many of which contribute to the historic character of

the park; enhance the role that structures play in telling the story of the park's past; and maintain tangible elements of the area's history. The improvements would generate long-term moderate beneficial effects on the structures in the park. The No Action Alternative in combination with the cumulative actions would result in long-term negligible park-wide beneficial impacts.

Conclusions. The No Action Alternative would result in long-term moderate adverse effects on structures due to lack of structure stabilization and maintenance to keep pace with normal deterioration of historic structures in Port Oneida.

Impairment. There would be no impairment of park resources and values.

Alternative 2 – Carsten Burfiend

In Alternative 2, the north house at the Carsten Burfiend farm would be rehabilitated for use as a visitor contact station. Activities 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. The Peter Burfiend house would 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. Additional structures would be stabilized as part of this alternative, including those at the Carsten Burfiend farm, at the discretion of the park staff and as funds permit.

Alternative 2 would rehabilitate one of the Carsten Burfiend houses and the Peter Burfiend house. Rehabilitation would strengthen the two structures' roles in depicting the character of the farmsteads. It would bring occupants and users into the buildings who would provide ongoing monitoring and awareness of building conditions and inform park staff of maintenance needs. Rehabilitation, however, would result in higher maintenance requirements for the affected structures.

The stabilization of structures would prolong their life and provide a level of protection that would help preserve the historic fabric, until such time when full rehabilitation is funded. The stabilization of the outbuildings at the Carsten Burfiend farmstead would enhance their contribution to the historic character of the site by eliminating major deterioration.

Alternative 2 would provide long-term localized moderate beneficial impacts to historic structures by improving the condition of several and enhancing their contribution to the historic character of Port Oneida.

Cumulative effects. Other plans and actions occurring in the park to protect or improve structures include a proposed project in the Glen Haven Village Historic District that would stabilize structures there, as well as ongoing repair and stabilization of structures throughout Sleeping Bear Dunes National Lakeshore. These improvements would protect the park's inventory of structures, many of which are considered as contributing to the

historic character of the park, enhance the role that structures play in telling the story of the park's past, and maintain tangible elements of the area's history. These improvements would generate long-term moderate beneficial effects on the structures. Alternative 2 combined with the cumulative actions would result in long-term minor beneficial park-wide impacts to historic structures.

Conclusions. Implementation of Alternative 2 would result in physical improvements at historic structures, resulting in long-term moderate beneficial effects.

Impairment. There would be no impairment of park resources and values.

Alternative 3 – Charles Olsen

In Alternative 3, the house at the Charles Olsen farmstead would be further rehabilitated for use as a visitor contact station. This house has already been rehabilitated for use by Preserve Historic Sleeping Bear, so little work is needed. Rehabilitation would include minor historically sensitive modifications to meet functional requirements and provisions for accessibility by disabled individuals. The Goffar house would 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. Additional structures would be stabilized as part of this alternative, at the discretion of the park and as funds for this project permit.

Alternative 3 would provide additional improvements to the Charles Olsen house, which has previously been rehabilitated, and rehabilitation of the Goffar house. This would greatly strengthen the Goffar house's role in depicting the character of farmsteads in Port Oneida. Rehabilitation would bring occupants and users into the Goffar house who would provide ongoing monitoring and awareness of building conditions, and inform park staff of maintenance needs. The work at the Charles Olsen house would be limited and would not result in a major change in the level of use, monitoring, or awareness of condition. Rehabilitation, however, would result in higher maintenance requirements for both structures.

The stabilization of structures would prolong their life and provide a level of protection that would help preserve the historic fabric, until such time when full rehabilitation is funded.

Implementation of Alternative 3 would provide localized long-term moderate beneficial impacts by improving the condition of the structures, which would enhance the historic character of Port Oneida.

Cumulative effects. Other plans and actions occurring in the park to protect or improve structures include a proposed project in the Glen Haven Village Historic District to stabilize structures, as well as ongoing repair and stabilization of structures throughout Sleeping Bear Dunes National Lakeshore. These improvements would protect the park's inventory of structures, many of which contribute to the historic character of the park;

enhance the role that structures play in telling the story of the park's past; and maintain tangible elements of the area's history. These improvements would generate long-term moderate beneficial effects. Alternative 3 in combination with the cumulative actions would result in long-term minor beneficial park-wide impacts to historic structures.

Conclusions. Implementation of Alternative 3 would result in physical improvements to historic structures, resulting in long-term moderate beneficial effects.

Impairment. There would be no impairment of park resources and values.

Alternative 4 – Dechow

In Alternative 4, the house at the Dechow farmstead would be rehabilitated for use as a visitor contact station. This house has already been rehabilitated for use as employee housing, so little work is needed. Rehabilitation would include minor historically sensitive modifications to meet functional requirements and provision of accessibility for disabled individuals. The Peter Burfiend house would 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. Additional structures would be stabilized as part of this alternative. The structures selected would be at the discretion of Sleeping Bear Dunes staff and would occur as funds for this project permit.

Alternative 4 would provide additional improvements to the previously rehabilitated Dechow house and the rehabilitation of the Peter Burfiend house. Rehabilitation would greatly strengthen the Peter Burfiend house's role in depicting the character of the farmstead. The already-rehabilitated Dechow house's role would be enhanced to a lesser extent. Rehabilitation would bring occupants and users to both houses who would provide ongoing monitoring and awareness of building conditions, and information to park staff regarding maintenance needs. The work at the Dechow house would be limited and would not result in a major change in the level of use, monitoring or awareness of condition there. Rehabilitation, however, would result in higher maintenance requirements for the Peter Burfiend house.

The stabilization of structures would prolong their life and provide a level of protection that would help preserve the historic fabric, until such time when full rehabilitation is funded.

Implementation of Alternative 4 would provide localized long-term moderate beneficial impacts to these structures.

Cumulative effects. Other plans and actions occurring in the park to protect or improve structures include a proposed project in the Glen Haven Village Historic District that would stabilize structures, as well as ongoing repair and stabilization of structures throughout Sleeping Bear Dunes National Lakeshore. These improvements would protect the park's inventory of structures, many of which contribute to the historic character of

the park, enhance the role that structures play in telling the story of the park's past, and maintain tangible elements of the area's history. These improvements would generate long-term moderate beneficial effects. Alternative 4 in combination with the cumulative actions would result in long-term minor beneficial park-wide effects to historic structures.

Conclusions. Implementation of Alternative 4 would result in physical improvements at several historic structures, resulting in long-term moderate beneficial effects by improving the condition of the structures in Port Oneida.

Impairment. There would be no impairment of park resources and values.

Alternative 5 – Kelderhouse (Preferred Alternative)

In Alternative 5, the Kelderhouse residence would be rehabilitated for use as a visitor contact station. Rehabilitation would include restoration 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. One of the houses at the Carsten Burfiend farmstead would 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. Additional structures would be stabilized as part of this alternative. The structures selected would be at the discretion of Sleeping Bear Dunes staff and would occur as funds for this project permit.

Alternative 5 would rehabilitate the Kelderhouse residence and one of the Carsten Burfiend houses beyond basic stabilization that may occur under the No Action Alternative. Rehabilitation would strengthen the two structures' roles in depicting the character of the farmsteads. It would bring occupants and users into the buildings who would provide ongoing monitoring and awareness of building conditions, and inform park staff of maintenance needs. Rehabilitation would result in higher maintenance requirements for the affected structures.

The stabilization of structures would prolong their life and provide a level of protection that would help preserve the historic fabric, until such time when full rehabilitation is funded. The stabilization of the four outbuildings at the Kelderhouse farmstead would enhance their contribution to the historic character of the site.

Alternative 5 would provide localized long-term moderate beneficial impacts to historic structures, which contribute to the character of Port Oneida.

Cumulative effects. Other plans and actions occurring in the park to protect or improve structures include a proposed project in the Glen Haven Village Historic District that would stabilize structures, as well as ongoing repair and stabilization of structures throughout Sleeping Bear Dunes National Lakeshore. These improvements would protect the park's inventory of structures, many of which contribute to the historic character of the park, enhance the role that structures play in telling the story of the park's past, and

maintain tangible elements of the area's history. These improvements would generate long-term moderate beneficial effects. Alternative 5 in combination with the cumulative actions would result in long-term minor beneficial park-wide effects to historic structures.

Conclusions. Implementation of Alternative 5 would result in physical improvements to historic structures, resulting in long-term moderate beneficial effects.

Impairment. There would be no impairment of park resources and values.

6.6 VISITOR EXPERIENCE

Intensity

- **Negligible:** Visitors would not be affected or changes in visitor use and/or experience would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.
- **Minor:** Changes in visitor use and/or experience would be detectable. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.
- **Moderate:** Changes in visitor use and/or experience would be readily apparent. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.
- **Major:** Changes in visitor use and/or experience would be readily apparent and have important consequences. The visitor would be aware of the effect associated with the alternative and would likely express a strong opinion about the changes.

Duration

- **Short-term:** Impact occurs only during proposed implementation activities.
- **Long-term:** Impact occurs after proposed implementation activities.

Alternative 1 - No Action Alternative

Under the No Action Alternative, existing visitor facilities and amenities for Port Oneida would continue under current conditions. Visitors to Port Oneida would need to obtain information from the visitor center in Empire or at the Charles Olsen farm from the private organization Preserve Historic Sleeping Bear. The park currently provides a map for Port Oneida at the visitor center. Other than during the Port Oneida Fair, which is held annually in August, interpretive opportunities are lacking in Port Oneida.

Restroom facilities in Port Oneida are limited to a vault toilet located at the Pyramid Point trailhead. Roadside pull-offs are lacking in Port Oneida resulting in motorists using the road shoulders often in unsafe locations. Beach access would not be improved at the Carsten Burfiend farm. Continuing to operate under the current conditions would result in a localized long-term minor adverse effect.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in the Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive

opportunities and expanded picnic opportunities, improved pedestrian safety, and would stabilize critical historical structures. These improvements would contribute long-term minor beneficial effects to the visitor experience. The designation of M-22 as a Scenic Heritage Route would preserve the character of M-22, enhancing the visitor experience. The creation of the Leelanau Scenic Heritage Trailway would improve accessibility and recreational opportunities within Sleeping Bear Dunes. This would result in minor beneficial effects to the visitor experience. The No Action Alternative in combination with these other actions would result in long-term negligible adverse park-wide impacts to the visitor experience.

Conclusions. The No Action Alternative would not improve visitor use and experience in Port Oneida, primarily due to the lack of an interpretive program and visitor facilities. This would produce localized long-term minor adverse impacts.

Alternative 2 – Carsten Burfiend

Under Alternative 2, a new visitor contact station would be located at the Carsten Burfiend farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would provide internal and external interpretive graphics, and informational and orientation materials. Circulation in Port Oneida would be improved by providing additional parking, roadside pull-offs, and an improved trail system. Improved access to the beach would be provided at the Carsten Burfiend farm. The Port Oneida landscape would be stabilized by the removal of invasive species. At the visitor contact station site, steps would be taken to rehabilitate the landscape.

By locating the visitor contact station at Carsten Burfiend, visitors would be able to experience, first-hand, the connection of the former Port Oneida community to Lake Michigan. This experience is unique to this location. This site also provides long views of the historic landscape and surrounding forested hills.

The experience for Port Oneida visitors would be enhanced by the increase in amenities and interpretive opportunities, stabilized structures, and restored cultural landscapes. Visitors would be provided with new opportunities to view and experience Port Oneida through the visitor contact station, roadside pull-offs, and the improved trail system. By stabilizing structures and restoring cultural landscapes, visitors would be able to better experience the cultural and historic aspects of Port Oneida. The visitor contact station site, however, would not be visible from M-22, and appropriate signage would be needed to direct visitors to this location. Overall, this would result in a localized long-term minor beneficial effect.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in the Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven improved parking facilities, enhanced interpretive opportunities, expanded picnic opportunities and improved pedestrian safety, and would stabilize critical historical structures. These improvements would contribute long-term

minor beneficial effects to the visitor experience. The designation of M-22 as a Scenic Heritage Route would preserve the character of M-22, enhancing the visitor experience. The creation of the Leelanau Scenic Heritage Trailway would improve accessibility and recreational opportunities within Sleeping Bear Dunes. This would result in minor beneficial effects to the visitor experience. Alternative 2 in combination with these other actions would result in long-term moderate beneficial park-wide effects to visitor experience.

Conclusions. Implementation of Alternative 2 would result in an enhanced visitor experience within Port Oneida, resulting in long-term moderate beneficial effects.

Alternative 3 – Charles Olsen

Under Alternative 3, a new visitor contact station would be located at the Charles Olsen farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area. As with Alternative 2, this visitor contact station site would provide internal and external interpretive graphics and informational and orientation materials. Circulation in Port Oneida would be improved by providing additional parking, roadside pull-offs, and an improved trail system. Improved access to the beach would be provided at the Carsten Burfiend farm. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to rehabilitate the landscape.

The Charles Olsen farm is a focal point for visitors entering Port Oneida from the south. The view of the barn and house are important features of Port Oneida. By placing the visitor contact station at this highly visible location, visitors would be able to easily find the visitor contact station and would be encouraged to stop and obtain information. The view from the Charles Olsen farm to the Dechow farm allows visitors to experience the historic character of Port Oneida.

The experience for visitors to Port Oneida would be enhanced by the increase in amenities and interpretive opportunities, stabilized structures, and restored cultural landscapes. Visitors would be provided with new opportunities to view and experience Port Oneida through the visitor contact station, roadside pull-offs, and the improved trail system. By stabilizing structures and restoring cultural landscapes, visitors would be able to better experience the cultural and historic aspects of Port Oneida. Overall, this would result in a localized long-term moderate beneficial effect.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include improvements in the Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, expanded picnic opportunities and improved pedestrian safety, and would stabilize critical historical structures. These improvements would contribute long-term minor beneficial effects to the visitor experience. The designation of M-22 as a Scenic Heritage Route would preserve the character of M-22, enhancing the visitor experience. The creation of the Leelanau Scenic Heritage Trailway would improve accessibility and

recreational opportunities within Sleeping Bear Dunes. This would result in minor beneficial effects to the visitor experience. Alternative 3 in combination with these other actions would result in long-term moderate beneficial park-wide effects to the visitor experience.

Conclusions. Implementation of Alternative 3 would result in an enhanced visitor experience within Port Oneida, resulting in long-term moderate beneficial effects.

Alternative 4 – Dechow

Under Alternative 4, a new visitor contact station would be located at the Dechow farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would provide internal and external interpretive graphics, and informational and orientation materials. Circulation would be improved by providing additional parking, roadside pull-offs, and an improved trail system. Improved access to the beach would be provided at the Carsten Burfiend farm. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to restore the landscape.

By locating the visitor contact station at Dechow, visitors would be able to experience first hand a relatively intact mid-20th century farmstead. The home, barn, and associated structures present the most comprehensive group of structures in Port Oneida. This experience is unique to this location.

The experience for visitors to Port Oneida would be enhanced by the increase in amenities and interpretive opportunities, stabilized structures, and restored cultural landscapes. Visitors would be provided with new opportunities to view and experience Port Oneida through the visitor contact station, roadside pull-offs, and the improved trail system. By stabilizing structures and restoring cultural landscapes, visitors would be able to better experience the cultural and historic aspects of Port Oneida. The visitor contact station would be highly visible at the Dechow farm and visitors would be able to easily find this site. This would result in a localized long-term moderate beneficial effect.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in the Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven improved parking facilities, enhanced interpretive opportunities, expanded picnic opportunities, and improved pedestrian safety, and would stabilize critical historical structures. These improvements would contribute long-term minor beneficial effects to the visitor experience. The designation of M-22 as a Scenic Heritage Route would preserve the character of M-22, enhancing the visitor experience. The creation of the Leelanau Scenic Heritage Trailway would improve accessibility and recreational opportunities within Sleeping Bear Dunes. This would result in minor beneficial effects to the visitor experience. Alternative 4 in combination with these other actions would result in long-term moderate beneficial park-wide effects to the visitor experience.

Conclusions. Implementation of Alternative 4 would result in an enhanced visitor experience within Port Oneida, resulting in long-term moderate beneficial effects.

Alternative 5 – Kelderhouse (Preferred Alternative)

Under Alternative 5, a new visitor contact station would be located at the Kelderhouse farm. The visitor contact station site would include a parking lot, restrooms, an outside gathering place for small groups, and a picnic area. The visitor contact station would provide internal and external interpretive graphics, and informational and orientation materials. Circulation would be improved by providing additional parking, roadside pull-offs, and an improved trail system. Improved access to the beach would be provided at the Carsten Burfiend farm. The Port Oneida landscape would be stabilized by removal of invasive trees and shrubs. At the visitor contact station site, steps would be taken to restore the landscape.

By locating the visitor contact station at Kelderhouse, visitors would be able to experience the heart of the Port Oneida community first-hand. Historically, Kelderhouse was often the gathering place because it was the one farmstead with a phone. The Port Oneida schoolhouse is located across the road, and the Port Oneida cemetery is located adjacent to the house, to the south. This experience is unique to this location.

The experience for visitors to Port Oneida would be enhanced by the increase in amenities and interpretive opportunities, stabilized structures, and restored cultural landscapes. Visitors would be provided with new opportunities to view and experience Port Oneida through the visitor contact station, roadside pull-offs, and the improved trail system. By stabilizing structures and restoring cultural landscapes, visitors would be able to better experience the cultural and historic aspects of Port Oneida. The visitor contact station site would be at a highly visible location at the crossroads of Port Oneida and would be easy for visitors to find. This would result in a localized long-term moderate beneficial effect.

Cumulative effects. Other plans and actions occurring in the park to ensure that visitors are adequately served and that park resources receive long-term protection include the improvements in the Glen Haven Village Historic District. These improvements would provide visitors to Glen Haven with improved parking facilities, enhanced interpretive opportunities, expanded picnic opportunities, and improved pedestrian safety, and would stabilize critical historical structures. These improvements would contribute long-term minor beneficial effects to the visitor experience. The designation of M-22 as a Scenic Heritage Route would preserve the character of M-22, enhancing the visitor experience. The creation of the Leelanau Scenic Heritage Trailway would improve accessibility and recreational opportunities within Sleeping Bear Dunes. This would result in minor beneficial effects to the visitor experience. Alternative 5 in combination with these other actions would result in long-term moderate beneficial park-wide effects to the visitor experience.

Conclusions. Implementation of Alternative 5 would result in an enhanced visitor experience within Port Oneida, resulting in long-term moderate beneficial effects.

6.7 PARK FACILITIES AND OPERATION

Intensity

- **Negligible:** Park operations would not be affected, or the effect would be at or below the lower levels of detection, and would not have an appreciable effect on park operations.
- **Minor:** The effect would be detectable, but would be of a magnitude that would not have an appreciable effect on park operations. If mitigation was needed to offset adverse effects, it would be relatively simple and would likely be successful.
- **Moderate:** The effect would be readily apparent, and would result in a substantial change in park operations in a manner noticeable to staff and the public. Impacts would include providing additional visitor services, protection and emergency response services, law enforcement, facility maintenance, and trash removal. Mitigation measures would probably offset adverse effects and would likely be successful.
- **Major:** The effect would be readily apparent, would result in a substantial change in park operations in a manner noticeable to staff and the public and be markedly different from existing operations. Impacts would include providing additional visitor services, protection and emergency response services, law enforcement, facility maintenance, and trash removal. Mitigation measures to offset adverse effects would be needed, would be extensive, and their success could not be guaranteed.

Duration

- **Short-term:** Effects occur only during proposed implementation activities.
- **Long-term:** Effects persist beyond the period of implementation activities.

Alternative 1 – No Action Alternative

Under the No Action Alternative, the park would continue with the current management activities occurring in Port Oneida. The park maintains and operates its facilities in accordance with the *General Management Plan* (NPS, 1979). The associated historic agricultural landscape within Port Oneida is managed according to the recommendations in the draft *Landscape Management Plan: Port Oneida Rural Historic District* (1999b).

Ongoing routine management activities include trail maintenance, trash removal at the parking lots/trailheads, maintenance of vault toilets, mowing at the farms used as host sites for the Port Oneida Fair (Thoreson, Charles Olsen, Dechow, Kelderhouse, John Burfiend barn), and removing snow from the Bayview trailhead parking lot and the access drive to the Dechow farm.

Implementation of the No Action Alternative would not result in new routine management activities in Port Oneida. If the structures continue to degrade, however, increased maintenance would be required to prevent the complete loss of these structures over the long term. Housing would remain at Dechow, which would not change maintenance required or park operations.

The No Action Alternative would result in long-term minor adverse park-wide effects on park operations and maintenance.

Cumulative effects. Implementing improvements in the Glen Haven Village Historic District would result in increased management activities as a result of the increase in facilities. This would result in long-term minor adverse effects. Implementation of the No Action Alternative in combination with activities in Glen Haven would result in long-term minor adverse park-wide effects on park operations.

Conclusions. Implementing the No Action Alternative would result in long-term minor adverse effects on park operations.

Alternative 2 – Carsten Burfiend

Under Alternative 2, a new visitor contact station would be located at the Carsten Burfiend farm and staff housing would be located at the Peter Burfiend farm. Implementing this alternative would result in new parking lots, new roadside pull-offs, new bathroom facilities, and new trails. Park staff would be required to maintain these new facilities and amenities. Park employees may be needed to staff the visitor contact station, particularly during peak visitation. Additional security patrols for the visitor contact station would be required, particularly with its proximity to the beach. The field restoration and stabilization that would occur with this alternative would result in an increased demand on staff to maintain these conditions. The demand on staff would be increased, resulting in park-wide long-term minor to moderate adverse effects.

Cumulative effects. The other park plans that would impact park operations are the same as described under the No Action Alternative. These actions along with this alternative would result in a long-term minor to moderate adverse park-wide effect.

Conclusions. Alternative 2 would increase the demand on park staff through increase time invested by staff to maintain and repair the new park facilities. This would result in park-wide long-term minor to moderate adverse effects.

Alternative 3 – Charles Olsen

Implementation of this alternative would create a new visitor contact station at the Charles Olsen farm and staff housing at the Goffar farm. This alternative would result in the same new facilities as Alternative 2. As with Alternative 2, there would be an increased demand on park staff to maintain these new facilities; however, these demands would not be as high as Alternative 2. Fewer security patrols would be required than Alternative 2 because there is no beach access at this location. Additionally, there are fewer outbuildings to maintain at this farm compared to Carsten Burfiend, Dechow, or Kelderhouse. Park employees would be required to staff the visitor contact station during times of peak visitation. As with the other action alternatives, the field restoration and stabilization that would occur would result in an increased demand on staff to maintain these conditions. Overall, the demand on staff would be increased, resulting in a park-wide long-term minor adverse effect.

Cumulative effects. The other park plans that would impact park operations are the same as described under the No Action Alternative. These actions along with this alternative would result in a long-term minor adverse park-wide effect.

Conclusions. Under this alternative, the required operation and maintenance would be increased, resulting in a long-term minor adverse effect.

Alternative 4 – Dechow

Implementation of this alternative would create a new visitor contact station at the Dechow farm and staff housing at the Peter Burfiend farm. This alternative would result in the same new facilities as Alternatives 2 and 3. As with the other action alternatives, there would be an increased demand on park staff to maintain these new facilities; however, these demands would not be as high as Alternative 2. Fewer security patrols would be required, because there is no beach access at this location. Additionally, Dechow has the highest number of outbuildings to maintain as compared to Carsten Burfiend, Dechow, or Kelderhouse. Park staff would be needed to staff the visitor contact station during peak visitation. As with the other action alternatives, the field restoration and stabilization that would occur would result in an increased demand on staff to maintain these conditions. Overall, the demand on staff would be increased, resulting in a park-wide long-term minor to moderate adverse effect.

Cumulative effects. The other park plans that would impact park operations are the same as described under the No Action Alternative. These actions along with this alternative would result in a long-term minor adverse park-wide effect.

Conclusions. Under this alternative, the required operation and maintenance would be increased, resulting in long-term minor to moderate adverse effects.

Alternative 5 – Kelderhouse (Preferred Alternative)

Implementation of this alternative would create a new visitor contact station at the Kelderhouse farm and staff housing at the Carsten Burfiend farm. This alternative would result in the same new facilities as the other action alternatives. As with these other alternatives, there would be an increased demand on park staff to maintain these new facilities. Park employees may be needed to staff the visitor contact station, particularly during peak visitation. These demands would not be as high as Alternative 2. Fewer security patrols would be required, because there is no beach access at this location. The Kelderhouse farmstead has a moderate number of outbuildings to maintain as compared to Carsten Burfiend, Dechow, or Kelderhouse. As with the other action alternatives, the field restoration and stabilization that would occur would result in an increased demand on staff to maintain these conditions. Overall, the demand on staff would be increased, resulting in a park-wide long-term minor adverse effect on park operations.

Cumulative effects. The other park plans that would impact park operations are the same as described under the No Action Alternative. These actions along with this alternative would result in a long-term minor adverse park-wide effect.

Conclusions. Under this alternative, the required operation and maintenance would be increased, resulting in long-term minor adverse effects.

7.0 COST ESTIMATES

A preliminary cost estimate was developed for each of the four action alternatives described in Sections 2.2 – 2.5. These estimates were in order of magnitude and developed to assist in the Choosing By Advantages (CBA) process utilized during the project's Value Analysis workshop and report (NPS, 2006a). Certain elements such as the stabilization of historic structures; rehabilitation of cultural landscapes; and development of trails, waysides, parking and roadside pull-offs were constant for all four concepts, with the cost variation attributed to the visitor contact station and staff housing elements of the program. Cost for these two elements varied depending on the size and observed condition of structures, and the observed need for site improvements such as utility service upgrades. These findings are summarized in Table 7-1 below.

Table 7-1: Project Implementation Cost Estimates (FY 2006)

Alternative	Cost
Alternative 1: No Action	\$0
Alternative 2: Carsten Burfiend	\$769,000
Alternative 3: Charles Olsen	\$674,000
Alternative 4: Dechow	\$691,000
Alternative 5: Kelderhouse (Preferred Alternative)	\$754,000

More detailed plans and estimates will be prepared during the Preliminary Design phase of the project once a preferred alternative is selected.

8.0 CONSULTATION AND COORDINATION

8.1 EARLY COORDINATION

Coordination and public participation was initiated early in this project. Public participation began during the Port Oneida Fair in August 2005. A booth, which was staffed, was set up during the fair to provide information to the public and ask for feedback on the proposed project. Initial comments from local, state, and federal regulatory and resource agencies, interested citizens, tribes, and organizations were solicited via scoping letters and through information posted on the National Park Service (NPS) Planning, Environment, and Public Comment (PEPC) website.

The following tribes have demonstrated interest in the areas within Sleeping Bear Dunes National Lakeshore and were sent letters:

- Bay Mills Indian Community of Michigan
- Grand Traverse Band of Ottawa and Chippewa Indians
- Little River Band of Ottawa Indians
- Little Traverse Bay Band of Odawa Indians
- Sault St. Marie Tribe of Chippewa Indians of Michigan

Scoping letters were also sent to several organizations, interested citizens, regulatory and resource agencies (U.S. Fish and Wildlife Service), and government representatives. A comprehensive list is included in Appendix A.

Nineteen response letters were received. Each of the parties contacted during the scoping process will have an opportunity to review the draft environmental assessment.

8.2 PUBLIC PARTICIPATION

Two public workshops were held on May 3, 2006, from 3:00 to 5:00 p.m. and 7:00 to 9:00 p.m. at the Port Oneida schoolhouse in the Port Oneida Rural Historic District. A press release was issued prior to the meetings to provide notification for the workshops.

The workshops were held to obtain public input on the alternatives developed for Port Oneida. Maps showing the alternative concepts were made available prior to the workshops at the park visitor center and at seven area libraries.

Twelve people attended the first workshop, and six people attended the second workshop. Four people provided written comments in response to the workshops.

A public meeting for this project is planned for fall 2007. The purpose of the public meeting is to provide the general public with information regarding the study purpose and need, alternatives considered, and the recommended alternative. Input from this meeting will be used to obtain comments and refine study information assembled to date.

8.3 LIST OF PREPARERS

The following people assisted with preparation of this document.

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9.0 REFERENCES

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1950 Deciduous Forests of Eastern North America
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1992 The Atlas of Breeding Birds of Michigan
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2006 Port Oneida Rural Historic District Site Survey
- National Park Service
- 1979 Sleeping Bear Dunes National Lakeshore General Management Plan
- 1983 Secretary of the Interior's Standards and Guidelines: Archeology and Historic Preservation
- 1989 National Register Bulletin No. 30, Guidelines for Evaluating and Documenting Rural Historic Landscapes, (revised 1999)
- 1992 The Secretary of Interior Standards for the Treatment of Historic Properties
- 1993 Guiding Principles of Sustainable Design
- 1996 Guidelines for the Treatment of Cultural Landscapes

- 1997 National Register of Historic Places Nomination Form – Port Oneida Rural Historic District
- 1998a A Guide to Cultural Landscape Reports: Contents, Process, and Techniques
- 1998b Director’s Order 28: Cultural Resource Management
- 1999a Draft Historic Properties Management Plan/Environmental Impact Statement
- 1999b Draft Landscape Management Plan: Port Oneida Rural Historic District
- 2000 Director’s Order 47: Soundscape Preservation and Noise Management
- 2001 Director’s Order 12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making
- 2004a Cultural Landscapes Inventory – Port Oneida Rural Historic District, Sleeping Bear Dunes National Lakeshore
- 2004b Director’s Order 28A – Archeology
- 2006a Value Analysis Study – Sleeping Bear Dunes National Lakeshore, Stabilize and Rehabilitate Buildings in Port Oneida Rural Historic District
- 2006b Management Policies 2006. NPS D1416

APPENDIX A



United States Department of the Interior

NATIONAL PARK SERVICE
Sleeping Bear Dunes National Lakeshore
9922 Front St. (Hwy M-72)
Empire, Michigan 49630-9797

IN REPLY REFER TO:

August 26, 2005

L1617(SLBE)

Dear Friends:

The National Park Service (NPS) has begun the process of planning a large stabilization and rehabilitation project and associated Environmental Assessment (EA) for the Port Oneida Rural Historic District (District) in Sleeping Bear Dunes National Lakeshore. The purpose of the Project/EA is to explore the various ways in which the NPS might stabilize and rehabilitate historic structures and landscapes in the District, while enhancing visitor access to interpretive and recreational opportunities.

The District is representative of the late 19th and early 20th century farms of the Midwest. The 18 farms, 113 structures, and 3,400 acres constitute one of the largest intact agricultural districts in the National Park System. Because of its size, integrity, and potential for preservation, it is listed on the National Register of Historic Places at the State level of significance and has been suggested as potentially being of national significance by the Michigan State Historic Preservation Office. We have provided a map of the District on the reverse side of this letter that will help orient you to this resource.

The District provides an excellent opportunity to preserve a rapidly disappearing landscape associated with an important time period in the heartland of America. The potential exists for Lakeshore visitors to explore this American farm landscape for both educational and recreational activities.

While the NPS intends to preserve all of the historic structures and landscapes, a select number could be rehabilitated to be adaptively used by partners or by the NPS for operations. Recreational and educational opportunities could be provided by adaptively using one or more buildings as visitor use facilities such as contact stations and restrooms, developing a designated trail system and parking areas, and/or providing a system of wayside exhibits (interpretive panels) and signage for visitors who might tour the District by vehicle, bicycle, or on foot. Safety hazards from deteriorating structures would also be eliminated.

The Project/EA process is just beginning and we welcome your ideas on the future of the District. Specifically, we would like your ideas on how to best preserve the structures and landscapes and provide opportunities to understand and enjoy them. We also need your ideas on what impacts and issues we should consider as we plan how to achieve these goals. We request that you provide your comments to us by October 10, 2005. The comments you submit during this "scoping" phase of planning will be incorporated into a range of alternatives and impact analyses in the EA. The EA will then be made available for further public review and comment, scheduled for release this winter, and we will again solicit your input. Comments may be mailed to the Lakeshore at the above address or emailed to SLBE_EA@nps.gov.

Sincerely,

Dusty Shultz
Superintendent

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National Park Service
U.S. Department of the Interior

Sleeping Bear Dunes
National Lakeshore

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Sleeping Bear Dunes National Lakeshore News Release

April 11, 2006

For Immediate Release

Contact: Lee Jameson, 231-326-5134

NATIONAL PARK SERVICE SEEKS MORE INPUT ON PORT ONEIDA PLANNING

EMPIRE, MI – The National Park Service (NPS) at Sleeping Bear Dunes National Lakeshore is seeking additional public involvement in planning a large stabilization and rehabilitation project for the Port Oneida Rural Historic District. Park Superintendent Dusty Shultz said “We are developing alternatives for stabilizing and rehabilitating historic structures and the cultural landscape in Port Oneida, and enhancing visitor access to interpretive and recreational opportunities.” Port Oneida provides an excellent opportunity to preserve a rapidly disappearing landscape associated with the heartland of America, representing late 19th and early 20th century farms of the Midwest. The 18 farms, 113 structures, and 3,400 acres constitute one of the largest intact agricultural districts in the entire National Park System.

Public input during the scoping phase of project planning was received last fall. From that input, a set of alternative ideas have been drafted. The NPS is now seeking input on these ideas in order to form them into more specific alternatives in an Environmental Assessment (EA). These ideas reflect a variety of options for how Lakeshore visitors might explore and enjoy this American farm landscape and how the NPS might best preserve the historic structures and cultural landscape.

Maps showing these alternative ideas are available for review at the park visitor center and at seven area libraries: Benzie Shores District Library, Beulah Public Library, Glen Lake Community Library, Leelanau Township Library, Leland Township Library, Suttons Bay Area Public Library, and the Traverse Area District Library. In addition, the Lakeshore will be hosting a public planning meeting on **May 3rd** on the Port Oneida Rural Historic District. The meeting will be held at the Port Oneida Schoolhouse in the Port Oneida Rural Historic District 4 miles north of Glen Arbor on M-22. The one-room schoolhouse is located off Port Oneida Road. A meeting session will be held from 3:00 to 5:00 p.m. and then repeated from 7:00 p.m. to 9:00 p.m. It is only necessary to attend one session. Architects and Engineers from JJR of Chicago and Ann Arbor prepared the alternative ideas from the earlier public input and will be conducting the meeting for the park. JJR will be providing a presentation and then asking for discussion and public input on these ideas for Port Oneida.

“The process is moving along and we welcome your input on these ideas for alternatives as we decide how to best achieve the goals for preservation and interpretation of Port Oneida,” said Shultz. Comments should be mailed to Superintendent, Sleeping Bear Dunes National Lakeshore at 9922 Front Street, Empire, MI 49630 or sent via email to SLBE_EA@nps.gov by May , 2006. Comments will be incorporated into a more specific range of alternatives and impact analyses in the EA. The EA will then be made available for further public review and comment, scheduled for release this summer. For more information, please call 231-326-5134.

-NPS/SLBE-

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