



CAPE KIWANDA

Master Plan for Tourism Related Facilities

Existing and Planned Conditions Report

January 2016



Table of Contents

Project Background	1
Cape Kiwanda: A Sense of Place	3
Study Area	12
Land Use	12
Transportation	16
Current Conditions and Needed Facilities	22
Circulation	22
Parking	22
Wayfinding	25
Beach Safety	26
Facilities and Infrastructure	29
Sand Management	35
Natural Resources	37
Next Steps	39
Appendix	
Appendix 1: Summary of Stakeholder Interviews	41
Appendix 2: Population and Tourism Trends, Tillamook County	43
Appendix 3: OPRD Cape Kiwanda Beach Vehicle Access	48
Appendix 4: Cape Kiwanda Roadway Study	49

Project Team

Cogan Owens Greene
3J Consulting
ECONorthwest
GreenWorks
JET Planning
Kittelson & Associates
Scott Edwards Architecture

Project Background

Situated at the confluence of the Big and Little Nestucca Rivers with Nestucca Bay, Cape Kiwanda State Natural Area is one of the most popular tourist destinations in Tillamook County, Oregon. Part of the Three Capes Scenic Route, the area is known for its beautiful beaches, iconic sand dune and Chief Kiawanda “haystack rock.” Thousands of visitors flock to the area every summer to surf, fish, picnic, hang glide, explore tidal pools and sandstone formations, watch the famous Pacific City Dory Fleet and participate in a bevy of other recreational activities.

Cape Kiwanda is located within the Pacific City-Woods area; the largest unincorporated community on the Oregon Coast. Over the past ten years, Cape Kiwanda has seen a surge in tourism, particularly during the peak summer months. This can be attributed to the fact that population is growing in Tillamook County and the Portland area. See Appendix 2 for further information on population and tourism trends across Tillamook County. The Oregon Coast, and particularly places like Cape Kiwanda, is a popular destination within Oregon. While visitors are an integral element of any tourism destination, Cape Kiwanda’s transportation facilities, infrastructure and the environment are under increasing pressure.

Tillamook County is preparing a Cape Kiwanda Master Plan for Tourism-Related Facilities to identify ways to improve tourism facilities and infrastructure that will enhance visitor experiences while minimizing and mitigating the adverse effects experienced by the community.

The objectives of the Master Plan include inventorying existing and planned tourism facilities, identifying additional tourism-related facilities that will be needed within the next 20 years, locating proposed sites for the needed facilities, preparing cost estimates for planned improvements and developing a phased approach for implementing the Plan.

Purpose of this report

In this report, we explore current conditions at Cape Kiwanda and prepare an inventory of existing and planned tourism facilities in the area. Information was gathered from planning documents, a site visit, one meeting with the project Steering Committee and through stakeholder interviews. A summary of stakeholder interviews is included as Appendix 1.

This Existing and Planned Conditions report begins with a discussion of the character and sense of place that makes Cape Kiwanda unique, helping identify and inventory the features that are significant to the area. The remainder of the report includes a

Snapshot: Tourism and Population Trends in Tillamook County

- **Population is growing in Tillamook County and the Portland area.** Tillamook County has a small population (25,000 people), relative to the Portland area (1.7 million people). Population in Tillamook County is expected to increase by 15% growth (3,800 people) between 2015 and 2040. The Portland area is expected to grow by 33% (nearly 575,000 people) over the same period.
- **Tourism is growing in Tillamook County.** The Oregon Coast is a popular tourism destination within Oregon, both from visitors to Oregon and Oregon residents. About one-third of overnight trips to Oregon occurred at the Oregon Coast in 2013. Two-thirds of visitors to the Oregon Coast live in Oregon.

Cape Kiwanda (and Tillamook County) has the potential to continue growing tourism. Given the fact that Cape Kiwanda is about a two-hour drive from Portland and nearly half of Oregon's population lives in the Portland area, it is reasonable to assume that many of the visitors to Cape Kiwanda are from the Portland area. Continued population growth in the Portland area may drive tourism at the northern portion of the Oregon Coast, including at Cape Kiwanda. Over the last 14 years, tourism spending and tourism-related employment in Tillamook County grew substantially faster than population growth in the Portland area.

To the extent that Cape Kiwanda and Pacific City have the infrastructure to support increases in tourism, it seems reasonable to assume that tourism will grow at least as fast as the population. Cape Kiwanda's ability to accommodate visitors depends on the development of infrastructure to support tourism. Most notably, accommodating more visitors will require additional transportation capacity in the form of road improvements, additional parking, pedestrian and bicycle improvements, and other transportation improvements. Over the long-term, Cape Kiwanda will need to grow other tourism infrastructure, such as more overnight accommodations, visitor services (such as restaurants), additional transportation and urban infrastructure, parks, and other visitor services.

description of the study area, followed by existing conditions and issues related to each of these features, in addition to any planned improvements or preliminary opportunities to address the situation.

Cape Kiwanda: A Sense of Place

A sense of place is created by a unique collection of qualities and characteristics – cultural, social, and environmental – that provide meaning to a location. Sense of place is what makes one city or town different from another. Sense of place involves the human experience in a landscape, the local knowledge and folklore. Pacific City has a unique position on the Oregon coast, a rich maritime history and a geographical richness that provides its community distinctiveness and a discrete sense of place. By reviewing the visual, cultural, social, and environmental factors that influence Pacific City and Cape Kiwanda, we can consider how to prepare and plan for its future in this planning study.

Cultural and Social

Before the settlers began arriving to the Nestucca Valley in the 1870s, it was populated by Indian Tribes of the Nestuggas and the Killamooks (origin of the name of the Nestucca River and Tillamook). The original name of Haystack Rock is said to be "Chief Kiawanda Rock" named after Chief Kiawanda of the Nestugga Tribe from the early 1800s.

The Willamette Valley had become quite the settlement by the mid 1800s with fertile farm land, plentiful game, and plenty of rain for crops. Legend has it that one of the new immigrants was burning brush from his newly homesteaded land as the fire got out of hand. Fanned by an unusually high easterly wind, it raced west into the Coast Mountain Range. It consumed everything in its path including old growth timber that had stood for hundreds of years.

As the monstrous fire neared the coast, the local Indian population came under siege. It is said the Nestugga Indian Tribe was camping on what is now the Big Nestucca River near what is now called Woods. They were forced to paddle their dugouts downstream in a panic, leaving all their possessions behind to find refuge on the sand spit, now called Bob Straub Park. The fire desecrated the land and the wildlife. For centuries the Native American Indians had relied on the large herds of elk, deer, and bear for sustenance. After the catastrophe, their main staple became the fish from the rivers as the game in the area was virtually eradicated. By the time the Tribes were relocated from their homes to a reservation on the Salmon and Siletz River, the Indians numbered around 200. Around 1876, Chief Nestugga Bill and the last of the small tribe, paddled down the Little Nestucca River across the bar into the Pacific Ocean and headed south to their new home.

It was along the Nestucca River that many of the early pioneers came on sea going steamers such as The Della and The Elmore. These steamers frequented the rivers, bays,

and bars from San Francisco to Astoria. Other pioneers traveled over the mountains by rough trails crossing many rivers with no bridges. In 1882, a road from Grand Ronde to the Nestucca Valley was completed, greatly improving travel.

Because fish (salmon) were so plentiful in the Nestucca Bay, a commercial cannery was built in 1886 located on the east side of the bay and thrived for many years employing both Caucasian and Chinese workers. Fishing and logging became the primary occupations in the valley. Because of Pacific City's unique location near both the Nestucca River and the Pacific Ocean, it became the focus of recreation. Early "vacationers" would brave the elements by buckboard and horseback coming from the Willamette Valley to enjoy the Pacific Ocean and the river. It was usually at least a two-day trek. Many of these early resort seekers had never seen the ocean having come from the Midwest on the Oregon Trail. Campgrounds and facilities soon sprang up to accommodate these travelers.

In 1926, with the once plentiful salmon population starting to dwindle; there was an outcry by non-commercial fishermen to stop the unmanaged harvest. A state law was passed to close the Nestucca Bay and its tributaries to commercial fishing (still in effect today). This action was instrumental in developing Pacific City's famous Dory Fleet who would launch their double ended fishing boats off the beach into the surf. Entering the open sea was dangerous when crossing the bar at the mouth of the Nestucca Bay, so the dory fishermen would battle the surf on the beach with the protection of Cape Kiwanda to gain access to the salmon off shore. Pacific City is one of only a couple dory surf launches on the west coast even today. The first dories were launched into the surf by horses as well as motor vehicles. During the 1960s and 1970s, the dory fleet numbered well into the several hundred whose catch was bought by several fish buying stations.

While the fleet declined during the 1990s due to fishery conservation measures, the number of vessels that call Pacific City their "home port" has once again expanded to nearly 250. Launched by recreational fishermen, the tradition is very much alive. Dory fishermen launch their boats through the surf south of the Cape as people gather to observe their efforts. Thousands of visitors travel to the Cape every year to enjoy this unique activity. In order to retain the historic tradition, the Pacific City Dorymen's Association was formed with its mission to protect, defend and promote the traditional cultural and economic values of the dory fleet. In addition to their mission, the Pacific City Dorymen's Association goals include:

- To protect the usual and customary access to, and use of, the public beach at Cape Kiwanda for all the traditional activities associated with dory vessels, and
- To maintain and improve all traditional vehicle and pedestrian access and vehicle parking on public lands at Cape Kiwanda, and
- To support safety regulations consistent with traditional dory vessel practices, and

- To actively seek laws and regulations that provide the maximum recreational and commercial fishing opportunities consistent with realistic conservation of the resources, and
- To establish and support projects and events that promote the traditional, cultural, historic and educational values of the dory fleet.

On the northern edge of the Cape Kiwanda parking lot and beach access, a memorial wall commemorates and pays tribute to past and current dorymen and dorywomen of Pacific City. The tribute wall also names all the boats in the fleet along with the fleet's history.

Environmental

Oregon's dramatic and beautiful coast line is the result of dynamic, powerful natural forces of weather, climate, ocean waves and currents, and the Earth's own tectonic evolution. These forces continually shape the coast, creating an environment that is at once attractive and dangerous. Pacific City is located on the Pacific Ocean and spans the Nestucca River with about half the city's area being behind Nestucca Bay. The city's unique location is bordered on the north by Cape Kiwanda State Natural Area and to the south by Bob Straub State Park while bounded to the east by the Oregon Coast Range. The city's natural beauty and scenic position on the coast off of Highway 101 over time has become a landmark destination.

The Oregon Coast in particular has a unique history and protection by the State of Oregon. The Oregon Beach Bill (House Bill 1601) was a piece of landmark legislation passed by the 1967 session of the Oregon Legislature. It established public ownership of land along the Oregon Coast from the water up to sixteen vertical feet above the low tide mark. In addition, it recognizes public easements of all beach areas up to the line of vegetation, regardless of underlying property rights. The public has "free and uninterrupted use of the beaches," and property owners are required to seek state permits for building and other uses of the ocean shore. While some parts of the beach remain privately owned, state and federal courts have upheld Oregon's right to regulate development of those lands and preserve public access. In addition to the Beach Bill, Oregon has a strong statewide program for land use planning. The foundation of that program is a set of 19 Statewide Planning Goals. The goals express the state's policies on land use and related topics, such as citizen involvement, housing, and natural resources. Specifically, Goal 17 Coastal Shorelands and Goal 18 Beaches and Dunes have direct relevance to Pacific City.

Goal 17: Coastal Shorelands

The purpose of Goal 17 is "to conserve, protect, develop, and, where appropriate, restore the resources and benefits of all coastal shorelands." In addition to its conservation objectives for protecting various shoreland habitats, Goal 17 aims to reduce hazard to human life and property. Local governments are required to identify the location of areas subject to geologic and hydrologic hazards within the Coastal Shorelands planning area. Local governments are required to delineate a Coastal Shoreland planning area that includes lands subject to ocean flooding and within 100' of the ocean shore or within 50' of an estuary or coastal lake, and adjacent to areas of geologic instability related to or impacting a coastal water body.

Goal 18: Beaches and Dunes

Goal 18 is designed "to conserve, protect, and where appropriate develop, and, where appropriate, restore the resources and benefits of coastal beach and dune areas." The goal also aims to reduce the hazard to human life and property from natural or human-induced actions associated with these areas. Areas subject to Goal 18 include beaches, active dune forms, recently stabilized dune forms, older stabilized dune forms and inter-dune forms. Uses are based on the capabilities and limitations of beach and dune areas to sustain different levels of use or development, and the need to protect areas of critical environmental concern, areas having scenic, scientific, or biological importance, and significant wildlife habitat.

Oregon's ocean beaches are managed by the Oregon Parks and Recreation Department [OPRD] which has an extensive permitting program for shoreline protection under the Beach Bill. OPRD is charged with the protection and preservation of the recreational, scenic, natural and other resource values found on Oregon's Ocean Shore. OPRD regulates activities affecting the ocean shorelands west of the statutory vegetation line, the survey line, or the line of established vegetation which is most landward, including beachfront protective structures, stairways, or other structures that impinge on the public beach. OPRD has incorporated the Department of State Lands' authority to regulate removal and fill activities along the ocean shore under its permit program. Permitted activities must be consistent with the Statewide Planning Goals (especially Goal 18), corresponding provisions of local comprehensive plans and the OPRD Ocean Shores Management Plan. Any improvement or alteration to the Ocean Shore seaward from the line of vegetation requires a permit for activities including the construction of shoreline protective structures, beach access ways, dune grading and various removal and fill activities, the routing of pipelines and cables beneath the Ocean Shore and natural product removal. In addition, OPRD also regulates vehicle use on beaches closed to driving, beach salvage, scientific research and collection and other non-traditional events conducted on the beach.

In Pacific City, there are vehicle access points which allow driving onto the beach. This is a rare occasion of vehicle access on the Oregon coast that is not prevalent statewide and the only vehicle access points to the beach in Tillamook County. Debate concerning environmental impacts of vehicle use on the beach has been a long standing discussion. However, the access points in Pacific City remain in part because of the historic dory fleet. Vehicle access to the beach is described by OPRD in Appendix 3.

Attractions

Spectacular views, smashing surf, precipitous sand dunes and an ample beach describe the basic attractions of Cape Kiwanda. Towering waves crashing against Cape Kiwanda, sandstone cliffs and frothing in the "bowl" entertain the onlooker and visitor. Clear days reveal fine vistas of Haystack Rock, Cape Lookout, and Cascade Head. According to the 2013 Travel Oregon Regional Visitor Report, 67% of visitors to the entire Oregon coast with overnight trips taken in 2012 and 2013 originated from Oregon. More than 53% of these trips to the coast from Oregon originated from Portland. Pacific City is an ideal destination for visitors based on its natural beauty, the multitude of attractions and the recreational offerings.

In fact, as surveyed by OPRD (Oregon Resident Outdoor Recreation Demand Analysis – Tillamook County Summary, 2013-2017 Oregon Statewide Comprehensive Outdoor Recreation Plan Supporting Documentation), the top five recreational activities for Tillamook County include walking on local trails and paths, sightseeing/driving for pleasure, beach activities (ocean), walking on local streets/sidewalks and visiting historic sites. As part of the OPRD survey for Tillamook County, participants identified priorities for the future in and near their community as listed below in descending order of preference:

1. Soft surface walking trails and paths
2. Nature and wildlife viewing areas
3. Public access sites to waterways
4. Picnic areas and shelters for small visitor groups
5. Children's playgrounds and play areas made of natural materials (logs, water, sand, boulders, hills, trees)
6. Off-street bicycle trails and pathways
7. Paved / hard surface walking trails and paths
8. Community gardens
9. Off-leash dog areas
10. Picnic areas and shelters for large visitor groups

The beach at Pacific City offers a range of activities including walking, stationary relaxing, scenic enjoyment, people watching, exercising dogs, beach combing, kite

flying, exercise, sand play including climbing Cape Kiwanda, swimming, surfing, paddle boarding and dory boat launching. The main locations of natural attractions in Pacific City include the following:

1. Cape Kiwanda State Natural Area
2. Bob Straub State Park
3. The Beach
4. Nestucca River

1. Cape Kiwanda State Natural Area

Cape Kiwanda State Natural Area is a 185-acre park composed of a rugged sandstone headland, a sand dune over 200 feet high and a forested strip along 1½ miles of ocean beach. There is limited access to the park from the large paved county parking area south of the Cape and the paved county road which forms the park's east boundary (McPhillips Drive). Cape Kiwanda State Natural Area is a natural area with unique attractions and values that are primarily retained in their primitive state. Emphasis is placed on providing facilities for passive activities compatible with the natural significance of the park. This park offers the user a wide range of recreational opportunities including photography, sightseeing, beachcombing, beach play, sunbathing, hiking, nature study, and picnicking. Recently, hang gliding has become popular at the Cape while surf fishing has been pursued sporadically. Most visitors to Cape Kiwanda become involved beachcombing, beach play, sunbathing, surfing and picnicking.

The sandstone headland at Cape Kiwanda is extremely hazardous. Fifteen people died at Cape Kiwanda prior to 1973. Deceptively treacherous areas have claimed most of the victims. Slipping sands of the "bowl" and "trough" have surprised visitors and hikers and caused falls into the frothing surf and on the barnacle-covered, undercut sandstone. Escape from either area is almost impossible without direct assistance. Immediately upon acquiring the park in October, 1973, the State erected 4,000 feet of fence to protect the public from these hazards.

The Park's greatest scenic offering is the cape itself and the expansive sand dune surrounding it. The rugged headland offers a fine perch to view such distant points as Haystack Rock, Cascade Head and Cape Lookout. In addition, there are breathtaking displays of surf and spray resulting from violent collisions with the headland. The cape offers a rich and diverse ecological environment changing from a sand dune dominated landscape to a lush forest from precipitous cliffs poised over ocean to the forest cover drenched in quietness.

Shore pine forest covers 80% of the park with scattered Douglas fir, Sitka spruce, and Western hemlock. The bulk of this forest is found on old stabilized sand dunes. The

understory is a dense mass of salal evergreen, huckleberry, rhododendron, and wax myrtle. A small, but- unique vegetative area is the complex of grass, beach grass and coast strawberry present on the sandstone areas of the cape. This particular plant complex is found on isolated clumps of sand on the outer reaches of the coast.

Important OPRD Management goals for Cape Kiwanda State Natural Area include the following:

- Prohibit motorized vehicles on the large sand dune.
- Establish a pedestrian safety zone along the beach south of the Cape.

2. Bob Straub State Park

Bob Straub State Park lands were acquired by purchase from private owners, the Federal Government and the State Land Board between 1961 and 1964. In 1966, an exchange of lands was made with the US Forest Service. Originally called Nestucca Spit State Park, it was renamed in 1987 for former Oregon Governor Robert Straub, a strong supporter of the Oregon Beach Law, conservation of natural resources and opponent of the proposed use of the spit for a highway. Annual day use attendance reported by OPRD is 119,696 people.

A broad, attractive sandy beach extends four miles in length and includes ocean views of Cascade Head to the south and Haystack Rock and Cape Kiwanda to the north. The southern portion of the sandspit affords important wildlife habitat for shorebirds and migratory waterfowl as well as aesthetic appeal around its perimeter. The natural vegetation remaining along the east edge is of special ecological interest. Nestucca Bay provides an attractive sheltered 1,150-acre body of water supporting numerous fish, clams, crabs, and wildlife interests. The ocean beach affords opportunities for beachcombing, walking, sunbathing, beach play, bathing, horseback riding, surf fishing, and photography. High wind and blowing sand conditions limit the desirability for picnic use and camping for this state park. Nestucca Bay is attractive for fishing, clamming, crabbing, hunting, and boating.

The primary recreational values of Bob Straub State Park serve as public access to the ocean beach and Nestucca Bay. The area also serves as an important wildlife habitat and coast ecological complex that is important to retain for future public enjoyment. No development is allowed in the foredune area, east bay shore or the southern portion of the spit. Restriction of motorized vehicles in the park area, other than on designated roads and parking lots, is part of the management approach to this sensitive natural area. Beach driving will continue to be allowed, but vehicle access from the park area to the beach for this activity will not occur or be provided within the park.

3. *The Beach*

Beach access is provided in Pacific City at several public access points: the Cape Kiwanda parking lot, the turnaround lot at the west terminus of Pacific Avenue and several points of local access along Sunset Drive and Shore Drive. The highest amount of the activity for access to the beach is centered on the Cape Kiwanda parking lot. The parking lot includes a paved ramp for beach access for vehicles, also known as Hungry Harbor Road. The ramp is extended in summer months by a series of concrete planks. Located to the north of Pelican Brewery and south of Cape Kiwanda, beach access is a main focus for visitors to the coast in the summer and concentrates the visiting tourists, surfers, and dory fishermen into one central point of access to the beach. Coupled with nearby amenities, the Pelican Brewery, public restrooms, Cape Kiwanda Market, Moment Surf Company and other local businesses – amenities for visitors are profuse.

4. *Nestucca River*

The Nestucca River is 53 miles long and flows in a west-southwest direction to Nestucca Bay. It meanders and then runs right through the center of Pacific City, where there are several boat launches. The Nestucca River is famous for its huge fall Chinook salmon, it is also known for its winter run of Steelhead and Cutthroat Trout attracting recreational fishing during the associated season.

Special Events

Pacific City hosts significant events throughout the year which attract visitors to its shores. The following list highlights noteworthy attractions to the coastal town during the summer season.

- **Reach the Beach** – The "Reach the Beach" bike ride is a popular American Lung Association cycling event typically occurring in May. The ride started in four different locations throughout Willamette Valley and ends at the Oregon coast in Pacific City at the Cape Kiwanda parking lot. In the past the ride included 2,000 riders. For 2016 the ride is limited to 3,000 riders with many more individuals supporting the individual riders and teams arriving in Pacific City for the end of the ride celebration.
- **Surfslam** - The world's greatest Watercraft Freeriders and Racers descend on Pacific City for the top US PWC (Personal Water Craft) surf event in early September. The event combines several competitions: International Freeride Watercraft Association (IFWA) Freeride World Championship Tour, International Jet Sports Boating Association (IJSBA) Freeride World Cup and the Motosurf Western Championship. The Surfslam is held at Tierra Del Mar Beach access located just north of Pacific City. The Surf Slam attracts an international audience and spectators to the multi-day event.

- **Cape Kiwanda Long-board Classic** – The Cape Kiwanda Longboard Classic is one of the longest running surf contests in the Pacific Northwest, currently in its 17th year. The long board surf competition limits surfer registration to 150 participants but attracts an even higher amount of spectators and surfing enthusiasts who arrive to watch the competition. The registration area, information booths and vendors set up tents for the event on the beach in front of the Cape Kiwanda parking lot. This past year included a Craft Beer Festival during the Saturday afternoon program with all proceeds generated by the surf competition and brewfest contributing to fund the construction of the Pacific City Skate Park.
- **Dory Days** – The Dory Days festival celebrates the rich history of the dory fleet that launches from the beach at Cape Kiwanda. The Dory Days festival offers a parade, Marine Fair, community Fish Fry and Artisan fair in the downtown area. The festival typically occurs over a three day weekend in July.

Study Area

Land Use

The general planning area for the Cape Kiwanda Master Plan is expansive, extending from McPhillips Beach to the north, including the residential community of Tierra Del Mar, to Bob Straub State Park to the south (Exhibit 1). Land uses in the study area are a mixture of commercial, residential and open space, interspersed with or bordered by parks, forests, sand dunes, the coastline, farmland, an estuary and a wildlife refuge. The Pacific City-Woods community includes upscale shops and eateries, and more than 60% of housing in Pacific City is second homes or vacation rentals,¹ in addition to a number of resorts, motels, RV parks, vacation rentals and campgrounds.

While the general planning area is large, the focus of the Master Plan is on the area west of the Big Nestucca, between Cape Kiwanda and the turnaround located at the west end of the bridge. This is the section of coastline that attracts the majority of tourism in the planning area.

While land ownership across the study area is a mixture of private and public, including county, state and federally owned land, the focus area includes eight relatively contiguous parcels in public ownership, consisting of approximately 284 acres. Each of these public properties is numbered in the study area map (Exhibit 1), and referenced and described in Table 1.

¹ According to the Census's 2010-2014 American Community Survey, 62% of the dwellings in Pacific City were vacant for seasonal, recreational, or occasional use. These types of vacancies are generally second homes or vacation rentals in coastal communities. In comparison, 39% of dwellings in all of Tillamook County were vacancy for seasonal, recreational, or occasional use.

Parcel	Owner	Acreage	Other Identifier	Description
1	Tillamook County	1.86	Pacific City Turnaround/Parking Lot, Beach Access	Located at the south end of the focus area and west end of the bridge over the Big Nestucca River. Dedicated by Tillamook County in 1952 as a public park and recreational area, it has mostly been used as a parking lot for access to the beach. However, its utility as a parking lot has been limited due to large amounts of wind-blown sand. Underneath the lot is a landing point for a transoceanic fiber optic cable. There have been recent discussions with Tillamook Lightwave about a long term lease and maintenance of this parcel.
2	Pacific City Joint Water and Sanitary Authority (PCJWSA)	3.21		This parcel is used for providing sewer and water services, consisting of a sewer treatment plant and office.
3	Bureau of Land Management (BLM)	75.50		This lease area tract of forest land is owned by BLM, who has been working with PCJWSA on a lease that would allow PCJWSA to develop: a communication site for sewer and water operations, fencing around its existing well located on the tract, an access road, an emergency evacuation area, as well as public hiking trails. Because there is currently no legal access to the BLM tract, a public access agreement to reach the hiking trails is being finalized with Tillamook Lightwave over their adjacent parcel described below.
4	Tillamook Lightwave (TLW)	4.56		This parcel consists of a submarine cable landing station, purchased by TLW in 2010. Most of the building is presently leased to the University of Washington's Ocean Observatories Initiative. Other portions of the parcel not used for telecommunications are allocated for community uses as follows: (a) Nestucca Rural Fire Protection District, planned for lease to the fire district for future use of a building that will house water rescue craft; (b) Nestucca Valley Community Alliance (NVCA), leased for social and

Parcel	Owner	Acreage	Other Identifier	Description
<i>(Parcel 4 continued)</i>				recreational activities including a skate park, playgrounds, outdoor amphitheater, interpretive center and parking. This is the tract that is in place for public access to the hiking trails planned for parcel 3; (c) NVCA Revocable License Tract, leased for the same purposes as (b), but with a right to revoke the lease by the TLW should their telecommunication operations need to expand.
5	Tillamook County	2.00	Cape Kiwanda (Tillamook County) Parking Lot	This parking lot is the epicenter of visitor use at Cape Kiwanda and used for parking and beach access for both vehicles and the Pacific City Dory Fleet. It also serves as the site for a number of major festivals. The parking lot is regularly at overcapacity, which is exacerbated by sand accumulations. The site is also served by outdated public restrooms and a single lane beach access road (Hungry Harbor Road). Large crowds have made law enforcement, sand management and maintenance an ongoing challenge.
6	Tillamook County	2.10	Webb County Park, RV and Campgrounds	This County RV Park and Campgrounds contains 38 sites, and adjoins three private RV parks/campgrounds on its southeast boundary. On its north boundary it adjoins another vacant county-owned parcel (below), with some Webb Park campsites extending into this parcel.
7	Tillamook County	33.20		This parcel is situated along the northern boundary of Webb Park, and consists of both a large sand bowl and a forested slope. As noted, several Webb Park campgrounds extend into this parcel. Three legal access points exist.
8	US Forest Service	161.44		This parcel is largely forested and lacks legal access. Currently, there are no specific plans for the land.

Table 1. Summary of Public Ownership Parcels in the Cape Kiwanda Master Plan Focus Area

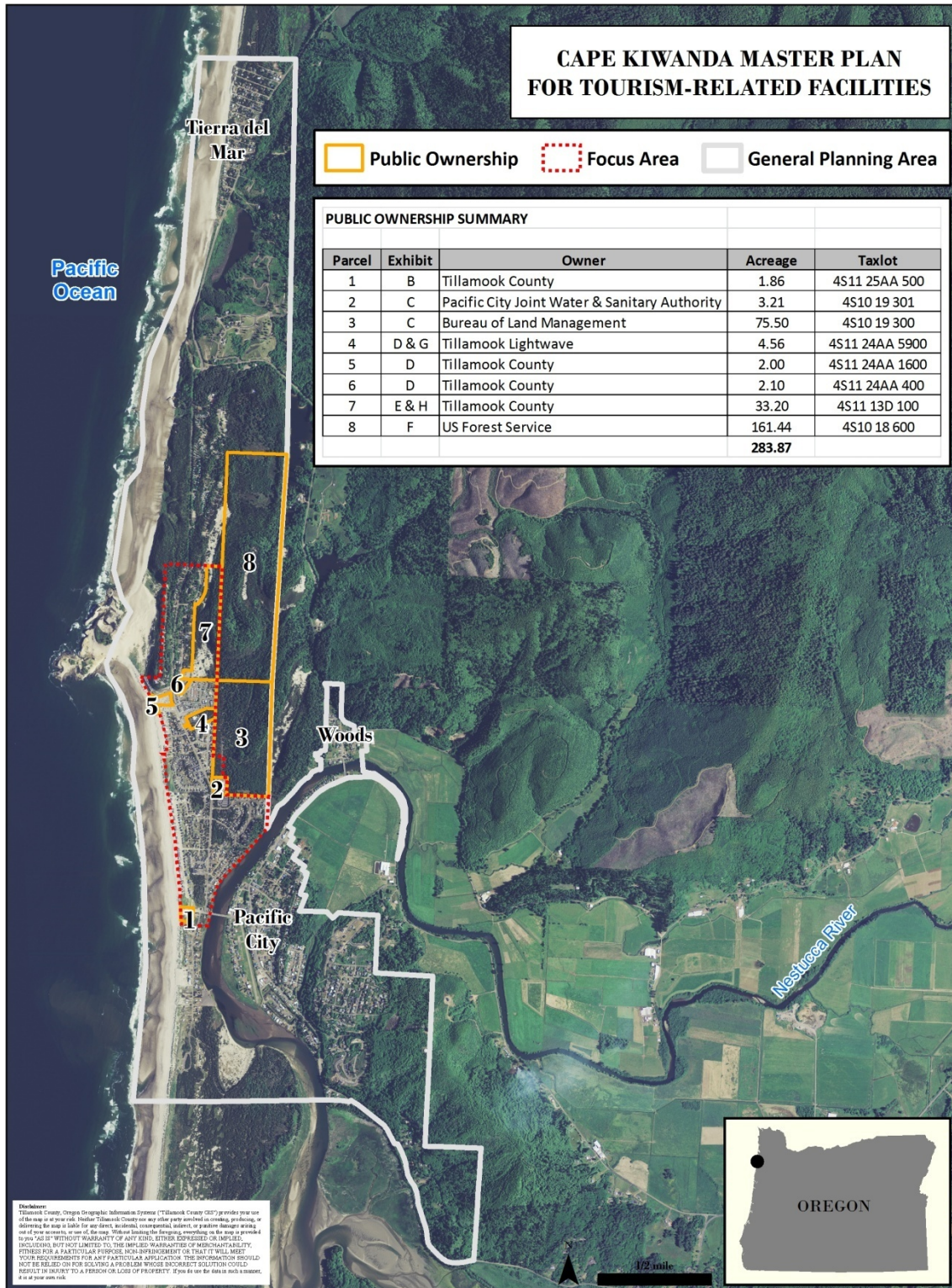


Exhibit 1. Cape Kiwanda Master Plan: General Planning Area and Focus Area Parcels

In addition to these eight public parcels, two other key sites were identified through conversations at the Master Plan kickoff meeting and site visit on November 3, 2015. Bob Straub State Park, described in the previous section as another major Pacific City attraction, and the Nestucca boat launch.

- *Bob Straub State Park:* This 484-acre park is located between the Pacific Ocean and Nestucca Bay, one mile south of Pacific City. It is a partially stabilized sandspit which provides 2¼ miles of ocean frontage and three miles of bay frontage. Access is through Pacific City, 4 miles off U.S. Highway 101.
- *Nestucca River Boat Launch:* The parking lot is located near the end of Sunset Drive and used for boaters to access the Nestucca River. It has a large paved parking lot, flush restroom and concrete boat ramp for motorized boat launch.

Transportation

Primary North-South Route

Pacific City and the Cape Kiwanda study area are located on a north-south travel route along the coast line approximately two miles north and west of Highway 101. This 11.5-mile route connects Highway 101 from the south to Cape Lookout Road north of the study area. The route primarily serves the communities of Pacific City, Woods, Tierra Del Mar, and serves natural/recreational areas such as Cape Kiwanda, Bob Straub State Park, and Sand Lake (Exhibit 2). It is also the southern portion of the Three Capes Scenic Route and a portion of the Oregon Coast Bike Route.

This north-south route culminates in a variety of road names as it passes through different portions of these communities. In the Pacific City and Cape Kiwanda areas, the route is named Brooten Road, Pacific Avenue, and Cape Kiwanda Drive. These facilities are under the jurisdiction of Tillamook County.

- South Brooten Road connects Highway 101 to downtown Pacific City, intersecting Pacific Avenue at an all-way stop controlled intersection.
- Pacific Avenue is a short section connecting downtown to Cape Kiwanda Drive, and includes a bridge over the Nestucca River. Pacific Avenue intersects Cape Kiwanda Drive at a two-way stop controlled intersection, with priority given to traffic traveling along the primary north-south route.
- Cape Kiwanda Drive extends from Pacific Avenue to the Cape Kiwanda parking lot and beach access. North of Cape Kiwanda, the route becomes McPhillips Drive. (Exhibit 3)

All the primary route roadways (Brooten Road, Pacific Avenue, and Cape Kiwanda Drive) consist of two lanes of traffic (one in each direction), with varying shoulder widths

and locations of sidewalks. Right-turn lanes serve residential development at some intersections along Cape Kiwanda Drive.

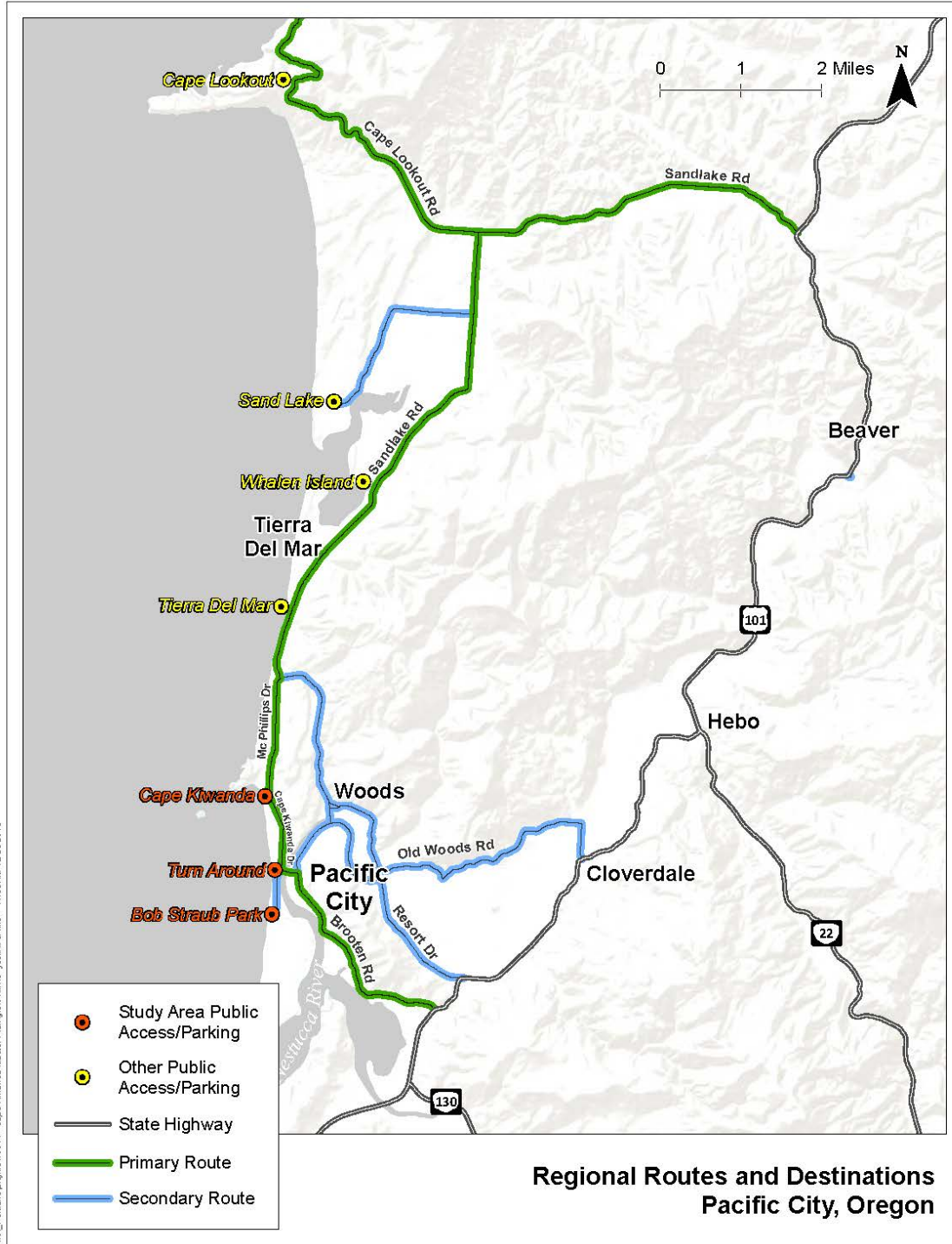
Secondary Routes and Local Roadways

Secondary routes in the community include (Exhibit 3):

- Brooten Road, north of Pacific Avenue continues through a small portion of the downtown area and becomes Resort Drive at the Ferry Street Bridge intersection.
- Resort Drive continues along the south side of the Nestucca River and eventually intersects with Highway 101.
- On the north side of the Nestucca River, Ferry Street becomes Sandlake Road and eventually intersects with the primary route at McPhillips Drive north of the study area.
- Sunset Drive extends south from Pacific Avenue near the Cape Kiwanda Drive intersection and dead-ends at the parking lot for Bob Straub state park.

The secondary route roadways (Brooten Rd, Resort Drive, Ferry Street, and Sandlake Road) consist of two lanes of traffic (one in each direction) with varying shoulder widths and locations of sidewalks.

The local roadways consist of residential neighborhoods roads, access to smaller businesses within the downtown area, and access to the agricultural areas. Many of these roadways dead end. The secondary and local roadways are under the jurisdiction of Tillamook County.

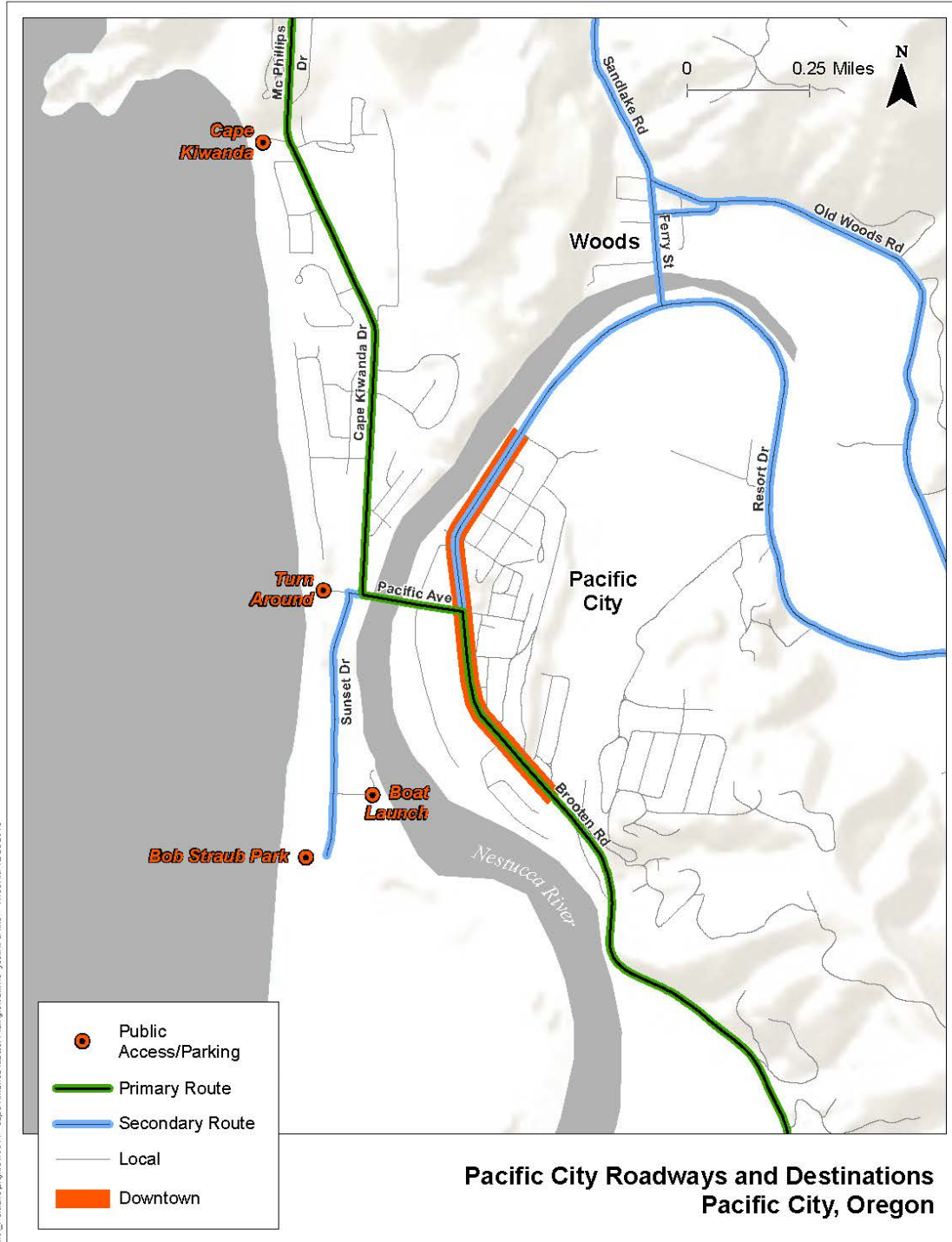


K:\Work\Projects\2015\12-29-2015 - Cape Kiwanda Master Plan\GIS\01.mxd - 11:55 AM 12/29/2015



Coordinate System: NAD 1983 Oregon Statewide Lambert Feet, Intl

Exhibit 2. Regional Routes and Destinations, Pacific City, Oregon



K:\Projects\2015\12292015 - Cape Kiwanda Master Plan\GIS\02.mxd - 11:56 AM 12/29/2015



Coordinate System: NAD 1983 Oregon Statewide Lambert Feet Intl

Exhibit 3. Pacific City Roadways and Destinations, Pacific City, Oregon

Existing Transportation Studies and Documents

Two studies related to transportation have been completed for the community and study area. Implementing all or pieces of each study may help with some of the transportation issues identified above. The following is a summary of each study.

Pacific City/Woods Transportation System Plan

In 1998-1999, Pacific City developed a Transportation System Plan (TSP) that includes the Cape Kiwanda study area. The TSP provides a comprehensive plan to identify and address community transportation issues. The community helped determine transportation-related issues potential facility needs. The plan concludes with a list of 22 transportation policies/needs to accommodate traffic for a 20-year period. Highlights from the *Policies and Projects/Strategies* (page 12-18) list include:

- Create an interconnected bicycle and pedestrian system throughout the community, including bicycle lanes, sidewalks, and off-road multi-use paths.
- Improve the Cape Kiwanda Drive/Pacific Avenue intersection.
- Create street design standards for Cape Kiwanda Drive, Brooten Road, and Sunset Drive.
- Improve beach access and parking.
- Implement speed reduction measures and add gateway treatments at the north and south entrances into the community.

Cape Kiwanda Roadway Study

This 2014 study, prepared for Tillamook County, summarizes existing transportation issues in the Cape Kiwanda area. It identifies a near-term and long-term framework for improving the areas roadways and pedestrian connectivity. The study culminates in a series of graphics to highlight these issues and potential improvements at a high-level. The study notes:

- How various travel modes create conflicts and present pedestrian safety risks.
- The varied uses and activity zones include beach access, parking, restaurant/pub, retail, lodging, RV park, and county park.
- Concentrated access along the main activity area abutting Cape Kiwanda Drive creates circulation issues including congestion and user conflicts.

The report concludes with a concept plan with backage road access for additional parking and secondary circulation on the east side of Cape Kiwanda Drive, enhanced beach access along Hungry Harbor Road and Alder Street and Cape Kiwanda Drive gateway treatments and pedestrian crossings. The entire *Cape Kiwanda Roadway Study* is included as Appendix 4.

Pacific Avenue & Cape Kiwanda Drive Intersection Plan

This 2010 Quick Response Project was funded by the Oregon Transportation and Growth Management (TGM) program “to address potential improvements to the infrastructure in a portion of Pacific City at the intersection of Pacific Avenue and Cape Kiwanda Drive, including the public right-of-way and the adjacent private development.” The Plan recommends a preferred alternative to replace the existing intersection with a single-lane oval-a-bout that accommodates all travel modes, accommodates increasing traffic volumes, and creates an attractive public feature and new commercial hub within Pacific City. The preferred alternative assumes significant development at all four corners of the intersection. The Plan also includes a recommendation to construct a median and pedestrian crossing of Cape Kiwanda Drive near Nestucca Boulevard. An Interim Alternative is intended to address the most significant safety concerns for pedestrians and bicyclists while making the intersection more intuitively understandable for drivers. The Interim Alternative includes shifting lanes to the east, repairing the eastern edge of the pavement, installing a new western and southern curb, and adding a small margin of asphalt on the west edge of the existing paving.

Transit

Tillamook County Transportation District (TCTD) operates a passenger bus and dial-a-ride service (referred to as *The Wave*), which includes four routes connecting Tillamook to the following cities: Oceanside/Netarts (Route 2), Cannon Beach (Route 3), Lincoln City (Route 4), and Portland (Route 5). TCTD also operates a Tillamook Town Loop (Route 1) for service central to the City of Tillamook. Route 4 serves Pacific City via Highway 101 and includes a bus stop along Pacific Avenue west of Brooten Road, and a bus stop at The Pelican Pub & Brewery at Cape Kiwanda. Northbound and southbound service is provided four times per day seven days a week, with four to five hour headways between 5:00AM and 9:00PM. TCTD is a partner agency within the Northwest Oregon Transit Alliance which implements the *North by Northwest Connector* system to support and encourage interagency coordination. The *North by Northwest Connector* allows people to travel via bus beyond the TCTD service area to Yachats, Newport, Albany, Salem, Astoria, and Kelso, Washington.

TCTD has been engaged in a planning process to update a 20-year vision document, the Transit Development Plan (TDP), which will be adopted by the TCTD Board of Directors in summer 2016. The TDP will ultimately help guide TCTD in prioritizing service enhancements throughout the District boundaries to better serve the community and accommodate future growth. A larger service area within and around Pacific City has been a component of alternative developments within the TDP.

Cape Kiwanda: Current Conditions and Needed Facilities

During the last 10 years, Cape Kiwanda and its amenities have become an increasingly popular tourist destination, particularly during the summer months. This has put pressure on transportation facilities, infrastructure and the environment. This pressure has resulted issues relating to: (1) circulation, (2) parking, (3) wayfinding, (4) safety, (5) facilities and infrastructure, (6) sand management and (7) natural resources. The following section describes the current condition of each of these issues as well as planned improvements or potential approaches for addressing the situation.

Circulation

In addition to serving through traffic, the primary north-south routes are means for circulating around town to the various destinations in the community such as downtown, Cape Kiwanda, Bob Straub State Park, and residential and commercial areas. During the off-peak tourist months (winter and fall), traffic volumes are relatively low and the primary route serves circulation around town in uncongested conditions. During the summer months, when the community and Cape Kiwanda becomes a peak tourist destination, this primary route becomes congested with many different types of users.

The high demand and associated issues become most prevalent at the Cape Kiwanda parking lot and beach access. Beach users compete for limited parking resources along the Cape and access to other lodging, restaurant and retail businesses. Cape Kiwanda Drive is the only roadway connecting all the uses in the area, resulting in users circulating along Cape Kiwanda Drive to look for parking. In times of overflow, people circulate in the adjacent residential area along Shore Drive and Pine Street or drive onto the beach via Hungry Harbor Road. The resulting traffic volumes, various types of users and travel modes circulating throughout the area degrade the quality of experience for all users. In addition, it presents safety issues, particularly for pedestrians.

The *Cape Kiwanda Roadway Study* identifies opportunities for addressing circulation issues in the Cape Kiwanda area. In addition, the Pacific City Transportation Systems Plan (TSP) provides recommendations for improving roadway, pedestrian and bicycle facilities as a means to encourage visitors to get out of their cars and walk or bike to destinations. The TSP emphasizes the creation of an interconnected, well-defined system of multi-modal facilities, in addition to intersection improvements and improved design standards to serve non-motorized users.

Parking

In general, public parking in the community is inconsistent in quality and availability. Parking at Bob Straub State Park and the Nestucca River boat launch, both located

along Sunset Drive, have plenty of available parking. Sand accumulation and associated management creates issues at the Pacific City Turnaround and Cape Kiwanda parking lots. The Cape Kiwanda parking lot is under high demand during the summer months, and exceeds the available capacity creating issues as users circulate to find parking. The following provides a general description of available public parking for each area.

Bob Straub State Park

The parking lot is located at the end of Sunset Drive and for those who access the beach and nature park. Users include hikers and equestrian. Parking consists of angled parking stalls and a one-way loop in/out of the parking lot area. Parking supply generally serves demand. Sand management does not appear to be an issue because of a vegetated mound separating the parking area from the beach.

Nestucca River Boat Launch

Parking consists of large stalls with little definition. The parking area is primarily used for vehicles and boat trailers. Although this parking lot becomes busy during peak fishing periods, there is generally sufficient capacity for boat launching and parking. Sand management does not appear to be an issue because of the vegetated mound separating the parking from the beach. In the past the parking lot has been used as overflow parking for events at Cape Kiwanda when people parking at the boat launch site are shuttled to an event at the Cape.

Pacific City Turnaround (Parcel 1)

A turnaround parking lot is located at the end of Pacific Avenue in right-of-way that is approximately 80 feet wide and ends at a 1.86 acre County Recreation Area parcel measuring approximately 209 feet east-west and 280 feet north-south. The lot can accommodate up to 75 parking spaces and serves those accessing the beach by foot, or driving onto the beach. The turnaround lot presents several challenges:

- The turnaround lot does not define parking stalls, parking aisles, and pedestrian walkways.
- Sand collects and builds in various locations of the turnaround lot obscuring the parking lot and reducing the available parking area.
- Sand collects and forms a hill dividing the turnaround lot from the beach that requires drivers using the turnaround lot to drive onto/from the beach to accelerate over the hill without clear sight of pedestrians or other obstacles, creating a high risk condition for all users.

The turnaround lot and beach access could be modified to create a better defined parking lot, maximize the parking capacity, and provide a safer transition for vehicles and pedestrians to access the beach. The goal would be to make this a safer and more attractive access to the beach so visitors are more likely to use it.

Cape Kiwanda (Tillamook County) Parking Lot (Parcel 5)

The county-owned lot, located along Cape Kiwanda Drive via Hungry Harbor Road (Cape Kiwanda beach ramp), is used primarily for day access to the beach and all the activities associated with it. The parking lot also is used by patrons of the Pelican Brewery. The parking lot is defined by parking aisles extending off Hungry Harbor Road, with perpendicular parking stalls. The parking lot includes restrooms and garbage cans. Hungry Harbor Road allows vehicular access to the beach and Cape. Dory operators use Hungry Harbor Road to access the north end beach to launch dory boats into the ocean. The vehicles and trailers are then left parked on the beach.

Increased summer tourism has put a strain on the parking available during those months. The public parking lot quickly fills up on a typical summer weekend, resulting in visitors:

- Using the private parking lots meant for the businesses around the Cape area;
- Parking in the adjacent neighborhood;
- Parking along the shoulder of Cape Kiwanda Drive;
- Driving onto the beach and park.

A lack of available public parking and lack of a parking management strategy exacerbates the circulation problems in the Cape area. People circle to find parking in a private lot or park on the side of the road where none exists. People also use Hungry Harbor Road and the beach as overflow parking.

Additional issues for this parking area include:

- Hungry Harbor Road is a public road and beach ramp, without well-defined public walkways from Cape Kiwanda Drive. This results in pedestrians walking in the roadway.
- Sand collects and builds in various locations around the parking lot reducing parking area and obscuring parking stall lines. This can make the parking lot confusing to users.

Two projects will be built next year to help alleviate some of these issues:

- The County has plans to widen the Hungry Harbor Road beach access to two lanes and build an additional sidewalk on the south side of the road (a sidewalk exists on the north side). This will create additional space for vehicles to access

the beach and additional hardscape for pedestrians to walk to and from the beach instead of walking in the roadway.

- Plans to build a new public park on the east side of Cape Kiwanda Drive at parcel 4, a short distance south from the Cape Kiwanda parking lot, include additional parking. The new parking associated with the park could potentially be used as a near-term solution to help alleviate some of the public parking capacity issues during the peak months.

Additional public parking is needed at the Cape with the goal of getting visitors parked, out of their vehicles, and walking to the beach on well-defined sidewalks and walkways. Adding public parking along Cape Kiwanda Drive may reduce the demand for beach parking at Cape Kiwanda, lowering the risk and concentration of safety issues between different types of users during those peak days. One opportunity on the east side of Cape Kiwanda Drive mentioned frequently is to relocate Webb Park (parcel 6) onto adjacent County property (parcel 7) and use its current location for parking.

Parking management and funding strategies should be developed to identify where to provide additional parking and how it is administered and maintained. Options should be explored for on-street and off-street provisions, shuttle services to and from public parking lots, pay-to-park programs and seasonal, residential and commercial parking restrictions.

Wayfinding and Signage

Wayfinding and signage in the community is inconsistent in message and quality. This can be confusing to users as they approach the area from the north and south, the only two ways into the community. Also, existing signs do not provide a clear direction to public parking or beach access. Much of the signage is similar to the picture below (Image 1), leaving users and visitors unsure of where they need to go.



Image 1. At the Brooten Road/Pacific Avenue intersection facing north (Google Images)

A wayfinding and messaging program could focus on directing visitors to public parking and beach access areas including Cape Kiwanda, Pacific City Turnaround, and Bob Straub State Park. Existing signs should be inventoried. Inconsistent, degraded signs should be removed and replaced with a new wayfinding and messaging program. Such a program should be developed with the goal of spreading visitors out over all three public beach access locations to alleviate the pressure on Cape Kiwanda beach access. In addition, a wayfinding and messaging program could help define certain areas or districts within the community to help visitors distinguish where they are and where they want to be.

Beach Safety

The many attractions and activities around Cape Kiwanda draw a variety of people to the area, including tourists and visitors, surfers, dory boat fishermen and residents. The different user groups of Cape Kiwanda sometimes create conflict in terms of access and safety.

Conflicting User Groups in Cape Kiwanda

Tourists and Visitors: A multitude of visitors and tourists descend upon Pacific City to enjoy the natural scenic beauty, multitude of recreational activities and the Pacific Ocean. The surfing and dory boats provide additional interest for viewing on the beach. Day trip visitors descend on the beach and use the Tillamook County parking lot and beach frontage to drive to their spot on the beach.

Surfers: There is a strong surfing community which uses the breaking waves just south of the Cape Kiwanda for year round surfing. The surfers must pay attention to their location and watch out for dory boats which may be entering the surf or attempting to land onto the beach. Surfers include longtime residents, short term residents, daytrip visitors, and even international surf legends.

Dory Boat Fishermen: The Dory Fishermen use 1,100 linear of feet of oceanfront just south of Cape Kiwanda to launch and land their ocean-going boats. The small flat-bottomed boats dare the ocean as they crash through the surf headed for the waters of the Pacific. The Dory fishermen sound their big horns off shore as a warning to indicate their return to the shore. Operating a Dory boat takes a great deal of skill and experience to navigate the breaking surf and currents.

Residents: As of the 2000 US Census, there were 1,027 people, 485 households and 317 families residing in Pacific City. The population swells during the summer months as visitors flock to the coast and vacation homes left vacant during the winter receive summer renters.

Surfers, Dorymen and Beachgoers in the Surf

Conflicting with pedestrian beach use is the parking and launching of boats and vehicles allowed year round at the Cape Kiwanda parking lot. The beach here is wide, sandy and relatively wind-sheltered. The same reason that this location is an ideal location for the dory boat launches and landings also attracts beach visitors. Experienced surfers know to steer clear of the wind-protected waters just to the south of Cape Kiwanda, and they generally have less interest in roaming this stretch of ocean. The same refuge from prevailing north winds that makes it safe for dories to launch means the waves are generally tepid for surfers. Wading children are more likely to get in a dory boat's way than a paddling surfer. Less experienced wave seekers, who have flocked to Cape Kiwanda in recent years because it's a good place for beginners, are now conflicting with the dory 1,100 feet of launch zone. The dory boats can't stop once they commit, and they must keep up a certain speed to avoid being swamped by a breaker. The only realistic way to avoid collisions with surfers is for surfers to stay out of the boat lane, which they're often warned to do by the long, loud blast of a doryman's air horn. An unfortunate accident occurred in this location when a dory boat severed the arm of an inexperienced young surfer in 2008.

Surfers, Dorymen and Beachgoers Vehicles on the Sand

Another case of conflict occurs on the beach sand allowed for vehicles. Experienced and inexperienced beach drivers use the ramp access to the beach in addition to the seasoned veterans of the dory fleet. A year-round ban on vehicles is in effect on North Kiwanda Beach from the parking area north to the cape. However, boat launching and vehicle/trailer parking is allowed the entire year on 1,100 feet of beach starting from the base of the cape and running south. Commercial and pleasure dory operation can cause considerable traffic congestion and hazard on the beach during the summer salmon fishing season.

Soft sand is the primary hazard driving on the beach, and can cause vehicles to be trapped in the sand. It is not unusual for vehicles to “bog down” in the sand and become stuck, and then to be inundated by the rising tide. Even experienced beach drivers with four-wheel drive vehicles designed for beach driving can get stuck and need to be hauled out by another vehicle. Typical driving in the sand requires the driver to maintain a certain speed, if the driver slows or stops, the vehicle can become immobile. With the number of vehicles on the beach attempting to not get stuck in the sand, there are conflicts with children, dogs and unknowing beach combers who step out in front of a vehicle driving in the sand.

Cape Kiwanda Beach Ramp

The paved beach ramp (Hungry Harbor Road) at the northwest corner of the Cape Kiwanda parking lot offers a paved method of accessing the beach. Uneducated drivers without four-wheel drive will attempt to drive onto the beach and immediately get stuck at the bottom of the ramp. This blocks all vehicular traffic at the base of the ramp and is a point of frustration for other users. The Dory fishermen are a commercial enterprise that faces obstacles from tourists who block the ramp for their use.

Another aspect of conflict on the ramp is the lack of pedestrian facilities to allow pedestrians to use the ramp to reach the beach. The ramp is narrow and offers one lane of travel for vehicles. There are no ADA facilities for residents or visitors to access the beach. As mentioned previously, planned improvements to the ramp will delineate two travel lanes and create another pedestrian sidewalk.

Most pedestrians use the sand area directly west of the Cape Kiwanda parking lot and the Pelican brewery to walk down to the beach. Possible consideration should be given to the summertime establishment of a pedestrian safety zone on this beach. This could be done by installing post and cable alleyways for pedestrian use that are removed following each fishing season in order to remove conflicts with the dory fleet using the ramp.

Given the dynamic nature of the beach it may be most feasible and cost effective to consider placing temporary pathways from already established beach access sites to the water. There are various “rollable” or “segmented” surfaces available from manufacturers but all of these products require almost daily maintenance to ensure that they are lying true and level, and to keep sand from accumulating on them.

Cape Kiwanda (Tillamook County) Parking Lot (Parcel 5)

As noted earlier, the Cape Kiwanda parking lot is consistently full during the summer months. An active recreational community includes pedestrians and bicyclists who also use this facility for access to the beach. Currently there is no dedicated pedestrian zone through the parking lot to provide access down to the beach. Sidewalks adjacent to Cape Kiwanda Drive facilitate movement north and south but little amenities provide movement east/west to and from the beach. The Cape Kiwanda Marketplace offers various market goods which creates a steady flow of pedestrians moving back and forth from the beach to the market. Pedestrian flashing beacons and crosswalks have been installed to create safe movements. However, pedestrians continue to cross as desired in front of traffic on Cape Kiwanda Drive.

Facilities/Infrastructure

Water and Sewer, restrooms and trash

Pacific City water and sewer services are provided by the Pacific City Joint Water and Sanitary Authority (PCJWSA). Recycling and Garbage Service is provided by Nestucca Valley Recycle and Garbage. Water and sewer systems exist within the vicinity of the project limits and connections, extensions and any modifications ultimately proposed will be coordinated and approved by the PCJWSA. Trash collection for any proposed public facilities is assumed to be contracted through agreements with Nestucca Valley Recycle and Garbage. Tillamook County has jurisdiction over solid waste, main road and stormwater systems along Pacific Avenue and Cape Kiwanda Drive.

During the project kick-off meeting the team visited four locations where discussions focused on potential improvement. These locations included the following:

1. Pacific City turnaround, parking lot and beach access
2. Tillamook Lightwave
3. Cape Kiwanda Parking Lot
4. Webb Park

Potential improvements to these locations are discussed generally as they relate to water, sewer and trash issues.

1. Pacific City Turnaround Lot (Parcel 1)

As stated prior, the Pacific Avenue Turnaround is currently used for informal vehicle parking and beach access (Image 2). Green Acres Beach & Trail Rides (Green Acres) is located on the south side of Pacific Avenue at its terminus (Image 3) which offers horseback tours of the Cape Kiwanda beach area. Proposed improvements include striping 50-75 parking spaces and potentially restroom facilities. Vehicle access to the beach is possible at this location although limited by site distance and sand conditions.

Utilities required to service this area if improved as discussed above includes water, sewer and storm water. Trash service is assumed to be contracted as discussed previously. A water main appears to exist within Pacific Avenue and provides a fire hydrant on the south side of the roadway adjacent to the Green Acres property. Water service to a proposed restroom facility would be provided by a standard service connection with a 1" meter connected to the existing water main. The restroom would require a sanitary sewer connection although there is not currently a pipe within this portion of Pacific Avenue. The closest sanitary pipe system to this location is at the intersection of Cape Kiwanda Drive and Pacific Avenue (Image 4). A new public sanitary sewer pipe would need to be extended from this location to the vicinity of a new restroom facility and then a service connection made to the new building.

If proposed improvements include new pavement area to provide a formalized turn-around and parking, a stormwater collection and conveyance pipe would be required to drain the paved areas. At this location it is assumed that the stormwater pipe would drain to the east to an outfall at the Nestucca River. Given the location, the permitting of this system will be through Tillamook County but also could trigger resource agency reviews and conditions. Currently, Tillamook County does not have established stormwater management standards. However, recent experience in Clatsop County indicates that water quality at the outfall will be a primary resource agency concern.

As discussed on the previous section, sand management for this location is also a primary issue.



Image 2. Informal parking and beach access at the turnaround lot (Google Images)



Image 3. Green Ares Beach and Trail Rides is located at the Pacific Avenue terminus (Google Images)



Image 4. Location of the closest sanitary pipe system to the Pacific Avenue turnaround (Google Images)

2. Tillamook Lightwave (Parcel 4)

Plans for the new public park include what could be used as a shared parking facility, as shown in Exhibit 3. The development also may provide access to the BLM property to the east. At this time there does not appear to be any identified improvements that would be part of the Master Plan but rather the Master Plan will need to acknowledge the proposed development. As the Master Plan proceeds, there may be facility needs identified which will be addressed in future reports.

Access to the Tillamook Lightwave site and the proposed development area is off of Cape Kiwanda Drive. Currently, this section of the roadway is two lanes wide with gravel shoulders. In the immediate vicinity of the access drive are single family homes occupying the west side and the three properties along the east side of Cape Kiwanda Drive (Image 5). The property immediately to the north along the east side of the road is currently vacant. Discussion during the site visit included the possibility of a left turn at this location and a right deceleration lane between the Tillamook Lightwave driveway and the entrance into the Cape Kiwanda RV Park. This would allow the merging of northbound turning movements onto Cape Kiwanda Drive and a refuge for RV turning into the RV Park.

The roadway widening would add significant impervious area which would be a surface water management issue. There is no apparent stormwater system in this location although there are catch basins located to the north in front of Doryland Pizza and the Cape Kiwanda Market Place. Catch basins and/or rain gardens could be an option to convey surface water to a desired outfall location. Further research will be required to determine what upgrades will be necessary to accommodate additional surface water conveyance at which time, catch basin size and/or rain garden locations will be determined as part of the future phases of this Master plan process.



HONOR PARK DONORS



SCREEN ADJACENT USES



27. SMALL AMPHITHEATER



18. COVERED PLAY STRUCTURE



14. SAND DUNE PLANT GARDENS



16. VOLLEYBALL



15. HORSESHOE



ENHANCE THE LANDSCAPE



DEPICT LOCAL HISTORY

21. PACIFIC CITY HISTORY WALL



28. OUTDOOR GYM



18. BOCCIE BALL

ADULT PLAY



PARK MASTER PLAN

PACIFIC CITY COMMUNITY PARK AND SKATE PARK

PACIFIC CITY OR



- PHASE 1**
PARK INFRASTRUCTURE IMPROVEMENTS
- ① SITE ACCESS IMPROVEMENTS ON CAPE KIWANDA DRIVE - LEFT TURN LANE, WEST TRAIL EXTENSION AND CROSSWALK
 - ② PEDESTRIAN ACCESS ROUTE - 4 FOOT WIDE SIDEWALK
 - ③ 40 SPACE PARKING LOT (2,200) WITH WHEEL CHAIRING
 - ④ DESIGNATED BLM TRAIL PARKING SPACES - 4 SPACES
 - ⑤ TRAILHEAD - ACCESS TO BLM TRAIL AND TRAILHEAD KIOSK
 - ⑥ BIKE RACKS
 - ⑦ 10 FT WIDE VEGETATIVE BUFFER BETWEEN PARK AND NEIGHBORS WITH EVERGREEN SHUB SCREEN (8 FT TALL MINIMUM)
 - ⑧ PUMP UP DROP OFF & EMERGENCY VEHICLE TURN AROUND FROM WATER TREATMENT TRAIL & CENTER OF TURN
 - ⑨ ASPHALT LOOP TRAIL

- PHASE 2**
CENTRAL UTILITY PARK IMPROVEMENTS
- ⑩ RESTROOMS
 - ⑪ DRINKING FOUNTAINS
 - ⑫ TRASH CANS AND RECYCLING BIN, TYP.
 - ⑬ DUMPSTER WITH SCREENED FENCE & LOCKED GATES
- PHASE 3**
TOILETS & DONATED PARK IMPROVEMENTS
- ⑭ STORAGE SHED
 - ⑮ SAND DUNE PLANT COMMUNITY DEMONSTRATION GARDENS
 - ⑯ HORSESHOE PITS
 - ⑰ BEACH VOLLEYBALL COURT
 - ⑱ BOCCIE BALL COURT

- PHASE 4**
HIGH VALUE, LOWER COST PARK IMPROVEMENTS
- ⑲ BIRD & POND TABLE WITH CONCRETE PAD, TYP.
 - ⑳ PARK BENCH, TYP.
 - ㉑ PACIFIC CITY HISTORY WALL - MOSAIC DEPICTING NATURAL AND CULTURAL HISTORY OF PACIFIC CITY
 - ㉒ PERMEABLE ASPHALT FARMERS MARKET AREA

- PHASE 5**
PARK IMPROVEMENTS REQUIRING SIGNIFICANT FUNDING SOURCES
- ㉓ PLAYGROUND - MIX OF TRADITIONAL, NATURE THEMED PLAY & SOFTY BOAT PLAY STRUCTURE
 - ㉔ 4 TALL SAFETY FENCE AROUND PLAYGROUND
 - ㉕ FOOTPRINT OF COVERED PLAY STRUCTURE
 - ㉖ 4,000 SF SKATE PARK (SEE SKATE PARK DRAWINGS)
 - ㉗ AMPHITHEATER (80 PERSON CAPACITY) WITH WOOD BENCH SEATING, WOOD STAGE, AND ADA ACCESS
 - ㉘ ADULT OUTDOOR FITNESS EQUIPMENT, TYP.
 - ㉙ FOOTPRINT OF SKATE PARK OVERHEAD COVER
- PHASE 6**
LONG TERM, HIGH COST FUNDING IMPROVEMENT
- ㉚ FOOTPRINT OF FUTURE 100,000 SQUARE FOOT INTERPRETIVE CENTER

Exhibit 4. Pacific City Community Park and Skate Park



Image 5. Access to the Tillamook Lightwave site is off of Cape Kiwanda Drive (Google Images).

3. Cape Kiwanda (Tillamook County) Parking Lot (Parcel 5)

At this location there are no improvements yet identified which would require water and sanitary sewer improvements (Image 6). The existing restroom appears to be old yet the decision to replace this facility should be reviewed against maintenance costs and issues that exist with the current functionality of the internal fixtures and the overall usage during peak times. The restroom is located at the highest point of the parking lot which is ideal for servicing via a gravity sanitary service. If the existing restroom facility is replaced, we assume that the existing service connection locations can be used to serve a new facility.



Image 6. Cape Kiwanda parking lot.

4. Webb Park (Parcel 6)

The Webb Park area was discussed as a potential location for future public parking (Image 7). Currently, this is a county-owned RV park including private water and sewer connections typical for overnight RV parking with a central restroom and shower building. Unless public restrooms are proposed in this location, there are no uses requiring extension of or connection to public water and sewer systems. There was discussion of transportation and access issues related to the move of the RV Park to the northeast onto other county-owned property in order to develop the area for public parking which would require public water and sewer extensions to the new facility. If this area is redeveloped into a public parking area, then the surface water issue will need to be addressed and a potential outfall will need to be located. At this stage of the Master Plan process, there is not sufficient definition of this area to clearly identify the facilities necessary to support redevelopment beyond what we have discussed herein.



Image 7. Webb Park may be a potential location for public parking (Google Images).

Sand Management

The management of sand intrusion into the existing areas is not an easy problem to address. Initial research indicates that the movement of sand is driven by wind and surf conditions and is complicated by human interaction with the natural environment. While it is a complex analysis to determine why and how sand moves within given reaches of the coastline, what must be addressed is how to deal with the current conditions.

Two areas within the Master Plan are significantly impacted by the movement of sand. These are the Pacific Avenue Turnaround parking lot and beach access and the Cape Kiwanda parking lot. Currently, sand intrusion in these areas is addressed by

mechanically removing the buildup and depositing it back onto the dunes along the beach. At the beach access at the end of Pacific Avenue the opening in the primary dune is quite wide allowing wind to readily move sand through the opening while the adjacent dunes appear to be fairly stable with existing vegetation cover. The Cape Kiwanda parking lot location offers no barrier separating the beach and primary dune from the paved area and in reality the primary dune in this location does not really exist.

Research into this issue included (1) a review of a 1997 document titled *CANNON BEACH: An Integrated Approach to Sand Management* by Charles L. Rosenfeld, Registered Professional Geologist, and (2) a discussion with Stephanie Reid who is the City Engineer for the city of Lincoln City. The Rosenfeld document provides a very complex scientific discussion of sand movement along a portion of the Cannon Beach area. His recommendations include grading to reshape the dune in some areas to what may be considered a more natural condition and planting of beach grass to stabilize the dunes. For other areas beach grass planting is the only recommendation. Lincoln City attempted planting in the Taft area but apparently used non-native species which grew too large and had to be removed. Today the City primarily uses mechanical and human labor to maintain most areas where they experience sand intrusion. The City has no current plan to use plantings to try and control sand movement. At the Wayside area at the outfall of D River, the parking lot is approximately eight feet above the beach and is protected by a seawall. The movement of sand in this location primarily impacts the stairs down to the beach and those areas are only scoured out by the surf during high tides and storm events. The parking lot is regularly swept but it does not generally get the kind of sand build up experienced in the Cape Kiwanda parking lot.

Given existing conditions, the mechanical means of removal is the most likely component of a long-term solution. Native plantings can be effective but need to be maintained and protected from pedestrian and human traffic. At the Pacific Avenue Turnaround site, one option might be to narrow the opening in the primary dune and plant the repaired area. Another option would be to include this access to vehicular traffic and further narrow the opening in the primary dune by grading and planting the area. At the Cape Kiwanda parking lot the problem is much more difficult to solve. The primary dune does not exist in this location and the parking lot is at the mercy of the environment. Grading and planting could be attempted but that would require the channelization of pedestrian access to the beach, which would be extremely difficult if not impossible. Physical barriers in this location will be overcome by the movement of sand. Engaging a geologist experienced in this type of environment would be the next step to addressing this issue.

Natural Resources

Oregon dune environments have been drastically altered with the introduction of European beachgrass and American beachgrass, non-native plant species, to stabilize the sand. Both exotic species have changed sand movement, plant communities and animal habitats along the Oregon coast. Dunegrass, *Elymus mollis*, was the dominant grass along Oregon's dunes before the arrival of European and American beachgrass.

Coastal dunes include beaches, foredunes, sand spits, and active to stabilizing back dunes. The vegetation varies from sparse to forested, as influenced by sand scour, deposition, movement and erosion. Species composition is also influenced by salt spray, storm tidal surges, wind abrasion and substrate stability. Beaches and sandspits are unvegetated and directly influenced by tidal action. Foredunes generally have unstable sand and sparse to moderate vegetative cover including Dunegrass - *Elymus mollis*, Seashore bluegrass - *Poa macrantha*, Grey Beach Peavine - *Lathyrus littoralis*, large-headed sedge, Beach Morning Glory - *Ipomoea pes-caprae*, Yellow Sand Verbena - *Abronia latifolia* and Silver Burweed - *Ambrosia chamissonis*. In dunes with greater sand stability, Red Fescue - *Festuca rubra*, Seashore Lupine - *Lupinus littoralis*, Coastal Strawberry - *Fragaria chiloensis*, Beach Knotweed - *Polygonum paronychia*, and Yarrow - *Achillea millefolium* are dominant. With plant succession, dunes convert over time to shrublands dominated by Salal - *Gaultheria shallon* and Evergreen Huckleberry - *Vaccinium ovatum* and forests dominated by Shore Pine - *Pinus contorta*, then eventually Sitka Spruce - *Picea sitchensis*, Western Hemlock - *Tsuga heterophylla*, and Douglas Fir - *Pseudotsuga menziesii*.

Currently, American beachgrass is invading the Oregon coast, threatening to change dune ecology and reduce the ability of dunes to protect roads, property and towns from coastal storms. Scientists at Oregon State University (OSU) have documented a slow but steady takeover by an American beachgrass (*Ammophila breviligulata* - American beachgrass or American marram grass), a species of grass that is native to eastern North America and is an invasive species. OSU scientists have found that protective "foredunes" covered by the American beach grass species are only about half as high as those created by the European species of grass that were formerly dominant. "This decrease in dune height may translate into a significant decrease in coastal protection from storms and tsunamis," states Eric Seabloom, an OSU assistant professor. The European grass - also an invasive species - has been dominant since it was first introduced to the area around the turn of the 20th century to help stabilize blowing sand on the coast. Without it, the sand would cover towns and roads. Surveys of the entire Oregon coast have determined that the current range of domination of American beach grass extends from Long Beach, Washington, to Pacific City, Oregon. But even beyond that, from Pacific City south, most of the beach grass is the American beach grass, with just a few pockets of European beach grass.

Forming Sand Dunes

In physical geography, a dune is a hill of sand built either by wind or water flow. Dunes occur in different shapes and sizes, formed by interaction with the flow of air or water. Dune habitats provide niches for highly specialized plants and animals, including numerous rare species and some endangered species.

Dunes form where waves encourage the accumulation of sand and where prevailing onshore winds blow this sand inland. There needs to be obstacles—for example, vegetation, pebbles, etc.—to trap the moving sand grains. As the sand grains are trapped, they start to accumulate and form dunes. The wind then starts to affect the mound of sand by eroding sand particles from the windward side and depositing them on the leeward side. Gradually this action causes the dune to "migrate" inland; as it does, it accumulates more and more sand. As a dune forms, plant succession occurs. The conditions on a dune are harsh with salt spray from the ocean carried on strong winds with high drainage and exposure. Rotting seaweed brought in by storm waves adds nutrients to allow pioneer species, such as beach grass, to colonize the dune. Beach grasses are well adapted to the harsh conditions of the foredune, typically having deep roots which reach the water table, root nodules that produce nitrogen compounds, and protected stomata, reducing transpiration. Also, their deep roots bind the sand together providing more resistance to wind erosion, and the dune grows into a foredune as more sand is blown over the grasses. The grasses add nitrogen to the soil, meaning other, less hardy plants can then colonize the dunes. These plants are also adapted to the low soil water content and have small, prickly leaves which reduce transpiration.

Habitat degradation and human disturbance are two of the biggest threats facing wildlife and plant species on the Ocean Shore. Habitat degradation is due to alteration of the habitat through development or the spread of invasive species and climate change. Human disturbances include recreation use and human development requiring shoreline protection structures, such as seawalls and riprap. Some low levels of recreation use should not adversely affect a given species, however; as the population of Oregon grows and more people come to the beach to recreate, conflicts between people and plants and wildlife will increase. The protection of sensitive plants and wildlife is important, including protecting all shorebirds from human disturbance during critical times of the year, and ensuring that some beaches provide a "wilderness setting" that is managed with limited access and high levels of resource protection. Environmental constraints faced by plants and wildlife include lack of prey, adverse weather conditions and/or predation. Each of these constraints results in ecological consequences that may cause a decline in the species' population. These constraints, plus human impacts, may result in a decline in the bird and mammal populations along the Oregon coast.

The sand area in front of the Cape Kiwanda parking lot, the Pelican Brewery and towards the south in front of private residences lacks an intact dune system. There is a lack of beach grass/dune system at the Tillamook County ramp to the south for roughly 1,400 linear feet. Without the natural dune system, sand can move unchecked and into the county parking lot in alarming volumes. An established dune system occurs in front of the Pacific Woods community for approximately 780 feet and then the dune system is denuded up until a small section of vegetated dune north of Pacific Avenue.

Next Steps

This Draft Existing and Planned Conditions Report will be distributed publicly prior to the second meeting of the Project Partners and first meeting of the Community Advisory Committee on January 12, 2016. Information from the Report will be presented and discussed at a community-wide meeting in February 2016. This report and the comments gathered at advisory and community meetings will inform the development of tourism-related facility and infrastructure alternatives.

Appendix

Appendix 1: Summary of Stakeholder Interviews

Appendix 2: Population and Tourism Trends, Tillamook County

Appendix 3: OPRD Cape Kiwanda Beach Vehicle Access

Appendix 4: Cape Kiwanda Roadway Study

APPENDIX

Appendix 1: Summary of Stakeholder Interviews

January 5, 2016

Interviewees

Bureau of Land Management, Karen Schank

Nestucca Rural Fire Protection District, Chief Kris Weiland

Nestucca Valley Chamber of Commerce, Merrienne Hoffman

Nestucca Valley Community Alliance, Marie Heimborg

Oregon Parks and Recreation Department, John Allan

Pacific City Joint Water and Sanitary Authority, Tony Owen

Pacific City – Woods Citizen Advisory Committee, Anne Price and Sean Carlton

Tillamook County Parks, Del Schleichert and JoAnn Woelfle

Tillamook County Public Works, Liane Welch

Tillamook County Sheriff's Office, Sheriff Andy Long

Tillamook Lightwave, Paul Levesque

US Forest Service, Deb Wilkins

Tourism-Related Challenges

Vehicle/Pedestrian Circulation

- Traffic congestion along Cape Kiwanda Drive.
- High traffic speeds approaching Cape Kiwanda area.
- Unsafe pedestrian crossing at Cape Kiwanda Drive.
- Dangerous conditions for pedestrians accessing beach along Hungry Harbor Road.

Parking/Access

- Limited parking on peak days, causing traffic congestion and parking on neighborhood streets, often blocking private drives.
- Vehicles getting stuck in sand; accelerate to get up access road.
- Need better access on north side of dune for paragliders.
- Too many cars parking on beach and in non-designated areas.
- Maintain access for the historic Dory Fleet.

Beach Safety

- Conflicts among beach users: dory boats, surfers, beach users, jet skis, kayakers.
- Turnaround beach access unsafe for pedestrians; blind vehicle access.
- Impeded emergency access to beach for rescue operations.

Facilities and Infrastructure

- Lack of restroom facilities and existing restrooms are not well-maintained.
- Excessive garbage on beach and overruns dumpster capacity.
- Sand inundation at parking lots.
- Impacts of visitors on water and sewer infrastructure.
- Insufficient funds to maintain Cape Kiwanda parking lot: sand removal, restrooms, parking lot, signage, garbage.

Other

- Disagreement among community members over whether to limit or encourage tourism.
- No clear boundary between Bureau of Land Management (BLM) land and RV Park. Common for campers to park on BLM land when RV Park sites are filled or too small.

APPENDIX

Potential Solutions

Vehicle/Pedestrian Circulation

- Improve traffic control at Pacific and Pacific Avenue.
- Provide pedestrian pathway on south side of Pacific Avenue Bridge.
- Create parallel roads to relieve traffic on Cape Kiwanda Drive.
- Improve roads/potholes.
- Signs for pedestrian to cross Cape Kiwanda Drive at crosswalks.
- Provide bike and pedestrian pathways along Cape Kiwanda drive.
- Pedestrian crossing beacons.
- Pedestrian under/overpass at Cape Kiwanda Drive.
- Install roundabouts as gateway treatments to slow traffic.

Parking/Access

- Improve road used by paragliders to take pressure off south dune beach access.
- Encourage visitors to use other beach access points to the north and south.
- Shuttle visitors from various lots along coast:
 - Turnaround lot
 - Tillamook County Boat Launch
 - Downtown – also benefits downtown businesses
 - Bob Straub State Park
 - Future Nestucca Valley Community Alliance Park parking lot
- Move Webb Park for additional parking.
- Charge fees for off-street parking to fund shuttle and parking/traffic improvements.
- Charge for on-street parking.
- Do not allow RV parking in Cape Kiwanda parking lot.
- Enforce parking regulations on streets and beach.
- Wayfinding signage for parking.
- Charge a fee for beach access (would require legislative action).
- Explore opportunities to provide parking north of Cape Kiwanda; McPhillips Beach.
- Lease/acquire USFS and/or BLM land for parks/trails and additional parking.

Beach Safety

- Install boardwalk around dory launch area.
- Level the dune at the Turnaround to improve safety.

Facilities and Infrastructure

- Add temporary or permanent restrooms at Turnaround lot.
- Encourage beach users to pack out garbage.
- Work with OPRD to prevent/clean up garbage on the beach.
- Work with Pelican Brewery and special events to maintain parking lots.
- Improve/maintain Cape Kiwanda restroom; provide additional restrooms.
- Improve restroom at Webb Park.
- Regular sand removal to clear parking stalls.

Other

- Explore opportunities for Cape Kiwanda parking lot: concessions, landscaping.

Appendix 2: Population and Tourism Trends for Tillamook County

Population Growth

Pacific City and Cape Kiwanda are located about 100 miles (two hours) away from downtown Portland, via Highway 6. Discussions with stakeholders suggests that many of the visitors to Cape Kiwanda are from the Portland area. Population growth the Portland region, as well as in Oregon in general, will be the primary source of increases in tourism in Tillamook County and Pacific City and Cape Kiwanda.

Exhibit 1 shows 2000 and 2014 populations in the country, state, Portland Area, and Tillamook County. The population of Tillamook County is 25,000 people, compared to 1.7 million people in the Portland area. Between 1990 and 2014, the Portland area grew by nearly 275,000 people, at an average annual growth rate of 1.2%.

Exhibit 1. Population, US, Oregon, Portland Area, Tillamook County, 1990 to 2014

			Change 2000 to 2014		
	2000	2014	Number	Percent	AAGR
U.S.	281,421,906	318,857,056	37,435,150	13%	0.9%
Oregon	3,421,399	3,962,710	541,311	16%	1.1%
Portland Area	1,444,219	1,717,765	273,546	19%	1.2%
Tillamook County	24,262	25,480	1,218	5%	0.4%

Note: Portland Area includes Clackamas, Multnomah, and Washington Counties

Source: US Decennial Census 2000. PSU Population Research Center 2014, US Census Population Estimates 2014

AAGR is Average Annual Growth Rate

Exhibit 2 shows the population forecasts for Tillamook County, the Portland Area, and Oregon. Tillamook County is expected to grow at an annual rate of 0.5% from 2015 to 2040, increasing by about 3,750 people over the 25 years. The Portland area is expected to grow by nearly 575,000 people between 2015 and 2040, at an average annual growth rate of 1.1%. The State expects to grow by 1.2 million over the same period. Growth in population in the Portland area, as well as in other parts of Oregon, will drive growth in tourism at the Oregon Coast. Tourism destinations on the Coast that are closer to the Portland area, where nearly half of the growth is expected to occur, will have opportunities for tourism growth as a result of population growth.

Exhibit 2. Population forecast, Oregon and Washington, 2015 to 2040

	Population		Change 2015 to 2040		
	2015	2040	Number	Percent	AAGR
Oregon	4,001,600	5,203,000	1,201,400	30%	1.1%
Portland Area	1,732,521	2,304,583	572,061	33%	1.1%
Tillamook County	25,733	29,485	3,753	15%	0.5%

Note: Portland Area includes Clackamas, Multnomah, and Washington Counties

Source: Oregon forecast from: Oregon Office of Economic Analysis, *Forecasts of Oregon's County Populations and Components of Change, 2010 - 2050*, March 2013

Tourism Trends

Tourism plays an important on the Oregon Coast and in Tillamook County. In 2014, about 27% of covered employment in Tillamook County was in the sectors most directly related to tourism: accommodation and food service, arts, entertainment, and recreation, and retail trade.

Tourism has a major economic influence on the State of Oregon and the Oregon Coast. Exhibit 3 shows travel trends in Tillamook County. Key findings include:

- **In 2013, travel in Tillamook County generated \$221 million dollars in direct spending, a 104% increase from \$108 million in direct spending in 2000.**
- **Direct spending supported 2,160 employees in the County in 2014, a 44% increase from 2000.**
- Of Tillamook County's \$221 million direct spending generated by travel in 2014, almost 40% is generated by day travel (\$90.4 million).

Exhibit 3. Travel Trends, Tillamook County, 2000 and 2014

Years	Direct travel spending (\$million)	Employment	Employment Earnings (\$million)	Tax Receipts (\$thousands)
2000	\$108.2	1,500	\$30.0	\$2,823
2014	\$221.1	2,160	\$65.7	\$6,241
Change 2000-2014				
Amount	\$112.9	660	\$35.7	\$3,418
Percent Change	104%	44%	119%	121%
AAGR	5.2%	2.6%	5.8%	5.8%

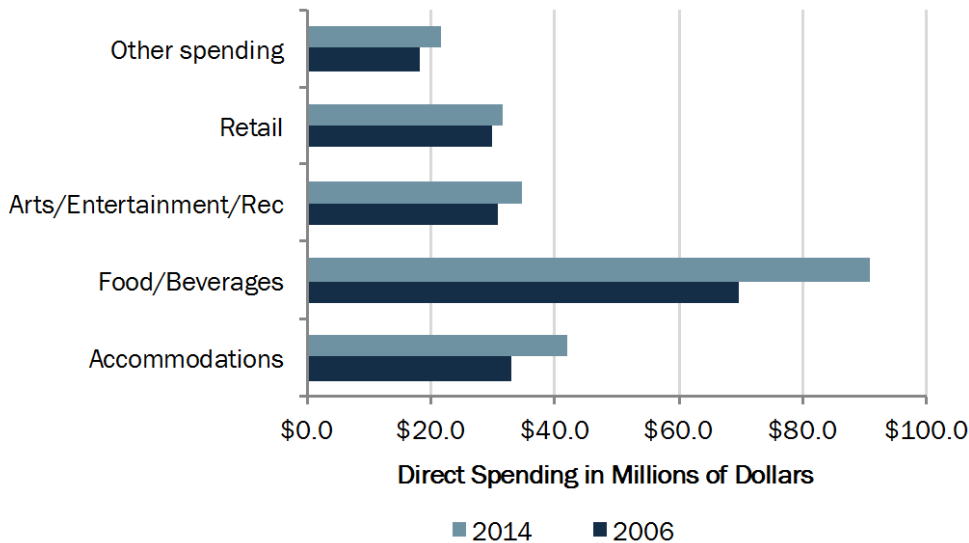
Source: "Oregon Travel Impacts 1991-2014p", Dean Runyan Associates, 2015
 Note: AAGR is Average Annual Growth Rate

Exhibit 4 shows visitor spending by type of commodity purchased.

- The largest category of direct spending in Tillamook was food and beverages, accounting for about 40% of expenditures in 2014. In comparison, Food and Beverages accounted for 28% of expenditures in Oregon in 2014.
- Visitors to Tillamook County spent \$90.9 million on Food and Beverage in 2014, up from \$70 million in 2006.

APPENDIX

Exhibit 4. Visitor travel spending by type of commodity purchased, Tillamook County, 2006 and 2014.



Source: "Oregon Travel Impacts 1991-2014p", Dean Runyan Associates, 2015

Exhibit 5 shows revenue from lodging taxes in Oregon, Tillamook County, and in the Oregon Coast region in 2000 and 2014.

- **Overnight stays generated about \$1.3 million in lodging tax receipts in Tillamook County in 2014.**
- Between 2000 and 2014, room tax receipts increased 176% in Tillamook County, 81% in the Oregon Coast region, and 113% in Oregon.

Exhibit 5. Local lodging tax receipts (thousands of dollars), Oregon, Tillamook County, Oregon Coast, 2000 and 2014

Area	Lodging Tax Receipts (\$thousands)		Change 2000 to 2014 (\$thousands)	
	2000	2014	Number	Percent
Oregon	\$82,000	\$175,000	\$93,000	113%
Oregon Coast	\$24,000	\$43,400	\$19,400	81%
Tillamook County	\$474	\$1,310	\$836	176%

Source: "Oregon Travel Impacts 1991-2014p," Dean Runyan Associates, 2015
 Note: Lodging tax receipts do not include state or federal taxes.

The Oregon Tourism Commission (OTC) provides research and marketing support to the Oregon tourism industry. The OTC commissioned a survey of Oregon travelers in 2013 by Longwood International. Following are some of the key findings from the Longwood study (with the most important trends for tourism development at Cape Kiwanda in **bold** text):

- Travel in the US generated 1.48 billion overnight stays in 2013. Of these, 43% were marketable pleasure trips.
- Oregon generated 30.6 million overnight stays in 2013. Of these, 59% (13.8 million) were marketable pleasure trips.

APPENDIX

- **About 51% of all overnight travelers in Oregon lived in Oregon.**

The 2013 Longwoods International survey also included information about tourist visitation to regions within Oregon. The region most relevant to Cape Kiwanda is the Oregon Coast. Exhibit 6 presents tourism metrics for Oregon and the Oregon Coast. Some key findings:

- Out of 30.6 million overnight trips in Oregon in 2011, 34% included destinations to the Oregon Coast.
- Visitors to the Oregon Coast region spent an average of \$126 per person per night in 2013, compared to the Oregon average of \$167.

Exhibit 6. Tourism metrics for Oregon, Oregon Coast, 2013

	Oregon	Oregon Coast
Overnight trips		
Total overnight trips	30.6 million	10.3 million
Percent of Oregon's overnight trips	100%	34%
Length of trip		
Average nights on entire trip	3.9	3.3
Average nights in the region	2.9	2.6
Size of travel party (number of people)		
Adults	2.8	2.8
Children	0.8	0.8
Average per person expenditures		
Overnight trip	\$167	\$126

Source: Oregon 2013 Regional Visitor Report, Longwoods International

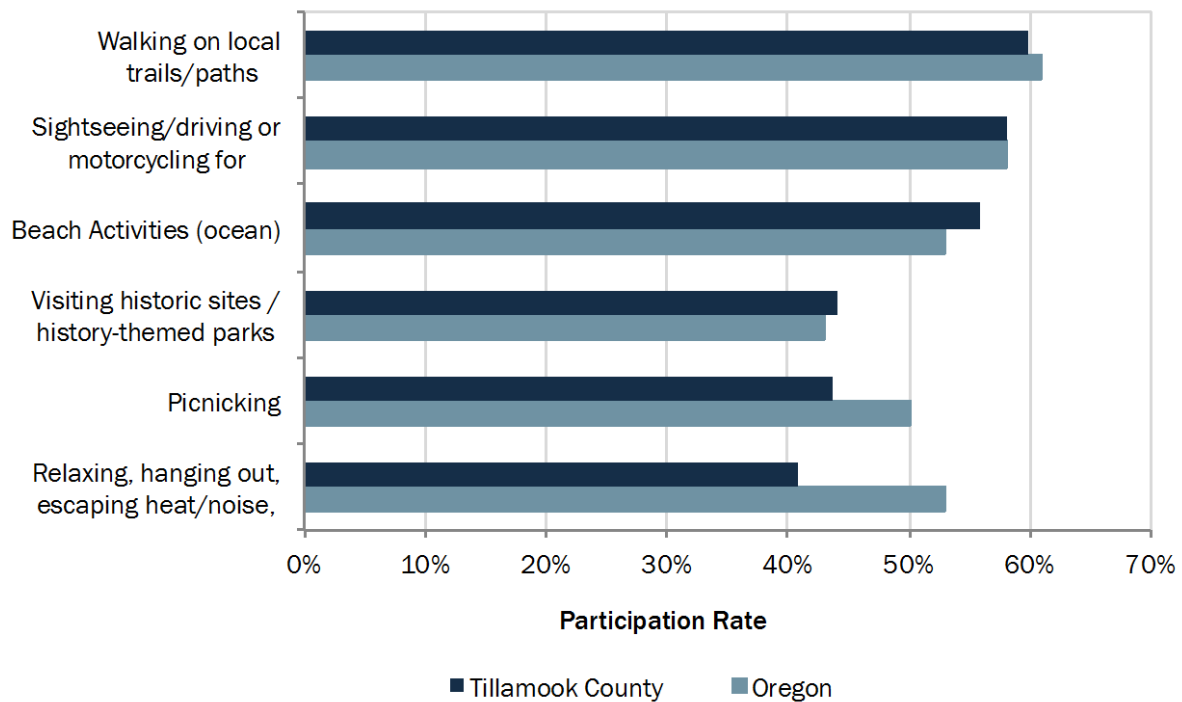
The 2013 Longwoods International survey also includes information about age, household size and type, and income of overnight visitors to Oregon and the Oregon Coast Region.

- **Two-thirds of visitors to the Oregon Coast live in Oregon and 18% live in Washington.**
- People visit the Oregon Coast year-round, with the most visitors in the summer and the fewest visitors in the autumn.
- Among visitors to the Oregon Coast, 31% lived in households earning \$75,000 or more. Forty-five percent of visitors lived in households earning less than \$50,000.

Outdoor Activities in Tillamook County

The Oregon Parks and Recreation Department develops the Statewide Comprehensive Outdoor Recreation Planning. Exhibit 7 shows the outdoor recreation activities with the most participation in Tillamook County and Oregon. Most popular activities in Tillamook County include walking on trails/paths, sightseeing/driving for pleasure, and beach activities (over 50% participation in Tillamook County).

Exhibit 7. Top Activities, Tillamook County and Oregon, 2011



Source: Rosenberger and Lindberg, Oregon SCORP Oregon Resident Outdoor Recreation Demand Analysis- Tillamook County Summary, 2012; Oregon Resident Outdoor Recreation Demand Analysis, 2012.

Appendix 3: Oregon Parks and Recreation Department (OPRD) Cape Kiwanda Beach Vehicle Access

Vehicle access to the beach is described by OPRD as follows:

- Motor vehicle travel is allowed at any time from the mouth of Sand Lake (Mile 266) southerly to the base of the headland north of Cape Kiwanda (Mile 262), except as follows:
 - From the mouth of Sand Lake (Mile 266), southerly to the approximate north boundary of Cape Kiwanda State Park property (Mile 263), motor vehicle travel is prohibited May 1 through September 30 and from sunrise to sunset on legal holidays (as defined in ORS Chapter 187) and on Saturdays and Sundays between October 1 and April 30
- Motor vehicle travel is prohibited from (Mile 261) southerly to near Pacific Avenue at Pacific City (Mile 260)
- Motor vehicle travel is allowed at any time from near Pacific Avenue at Pacific City (Mile 260), southerly to Porter Point (Mile 257)
- Motor vehicle travel is prohibited from the base of the headland north of Cape Kiwanda (Mile 262), southerly to a point north of the beach ramp near Cape Kiwanda (Mile 261), except as follows:
 - From the base of the headland south of Cape Kiwanda (Mile 261), southerly approximately 400 feet to (Mile 261), motor vehicles essential to and engaged in boat launchings, boat recoveries, transferring equipment or supplies onto boats, unloading equipment or catches from boats, or emergency repairs of other vehicles or boats will be allowed at any time during the year
 - From (Mile 261), southerly approximately 700 feet to a line located north of and parallel to the beach ramp near Cape Kiwanda, the point of intersection of said line and the line of vegetation being at (Mile 261), operation or parking of motor vehicles used for towing boat trailers or essential to boat launchings will be allowed.