MASTER PLAN
FOR
TILLAMOOK COUNTY COASTAL STATE PARKS

This detailed master plan document is one of six loose leaf notebooks prepared by the Oregon State Parks Staff in 1986 for distribution as follows:

Cape Lookout State Park (1 copy)
13000 Whiskey Rd. W.
Tillamook, OR 97141

District Park Manager
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Region 2 Office (2 copies)
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Region 2 Supervisor
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State Parks Division (3 copies)
525 Trade Street SE
Salem, OR 97310

Design Unit Supervisor
378-6281

As new pages of information are developed by any of the above sources, extra copies should immediately be made available to all of the above. The Design Unit Supervisor will periodically review and coordinate the updating of the planning documents.

Additional master plan background data is available in the files at the Salem Parks headquarters.

A condensed version of this master plan is available from:

Design Unit Supervisor
Oregon State Parks and Recreation Division
525 Trade Street SE
Salem, OR 97310

This plan was prepared by the Design and Master Planning Unit of the Oregon State Parks and Recreation Division, 1986.

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LOCATION MAP
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PURPOSE OF THE MASTER PLAN
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BACKGROUND INFORMATION
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TILLAMOOK COUNTY COASTAL STATE PARKS
THE SETTING

Diverse physical settings and environments are represented within the coastal state parks of Tillamook County. Rocky headlands, crashing surf, sandy beaches, dunes, streams, and estuaries all have their own beauty and interest. This variety allows for many kinds of recreational activity and attracts thousands of visitors each year to the coast.

There are two kinds of State Park properties on the coast: state parks and state waysides.

The parks—Cape Meares, Nehalem Bay, and Oswald West—are larger and offer a greater variety of activities for the park visitor. The waysides—Neskowin—Manzanita, Manhattan Beach, Rockaway Beach, Twin Rocks, Oceanside Beach and Neskowin Beach—are smaller areas which provide parking, picnicking and beach access.

Cape Meares and Oswald West State Parks are rugged, wooded headlands, offering excellent views of the surrounding ocean with its waterfowl and sea life. Broad sandy beaches and windswept dunes characterize Nehalem Bay State Park and the waysides.

CLIMATE

The coastal parks of Tillamook County all share the maritime climate typical of the north coast of Oregon. Winters are mild and wet; summers are warmer and relatively dry.

Precipitation occurs principally in the form of rain during the fall and winter. Seventy-five to eighty-five percent of the annual precipitation falls from October 1 to March 31. December and January are the wettest months, while July and August are the driest. Visitation to the parks corresponds directly to these rainfall statistics with heaviest visitation occurring in late summer.

In addition to the winter rains, there are frequent prolonged periods of cloudiness and dense fog. Snowfall is infrequent or even rare. Precipitation on the coast between Cape Falcon and Cascade Head averages between 90 and 100 inches annually.

Temperatures are generally mild with few fluctuations or extremes. During January, daily high and low temperatures are 49° and 34° respectively. In July, the high and low temperatures are 70° and 50°. The generally cool summer temperatures often provide relief from the warmer temperatures found in the inland valley and the metropolitan areas, providing an additional incentive for a trip to the coast.
Winds are generally from the northwest during the summer and from the south or southeast during the winter. The coastal area is subject to the full force of winds and storms as they move inland. Winds are often strong, occasionally reaching hurricane speeds of 74 mph or more.

The strong winds often cause timber blow-down to occur in the coastal forests and the winds, combined with winter rains, cause flooding and damage to coastal roads, trails and structures.

The winds are a very strong factor in the generation of higher waves along the coast in the winter. These waves are the primary cause of coastal erosion which occurs principally in the winter and which can be severe. These winter waves cause a seasonal change in the beach profile. Generally, in the summer gentle waves move the sand onshore and the beach is enlarged. In the winter the stronger waves move the sand offshore and the beach is depleted of sand.

PHYSICAL CHARACTERISTICS

This area of the coast is within the Coast Ranges Province, a narrow strip of the coast which extends from the middle fork of the Coquille River north to the Willapa Hills in southwestern Washington. This physiographic province is small but very significant ecologically. It is an area where two radically different environments, the ocean and the land, meet and mix. It is also more than a mix of these two environments; it is a unique environment with its own habitats and ecosystems. Certain areas, especially estuaries and wetlands, are among the most productive biologically of any in the world.

The physical nature of this area is that of rocky mountainous shorelines alternating with small bays and estuaries and broad sandy beaches and dunes. An important characteristic of this area is its dynamic nature. Ocean storms and tides, flooding and winds constantly restructure the features of the land.

Specific habitats within the Coast Ranges Province support their own plant and animal communities. Sand dunes support a wide variety of plant communities from beach grass to lodgepole pine forests while headlands often consist of grasslands or shrublands. Different forest types are found along the coast, depending on their proximity to the ocean, exposure to the winds and storms and the local soil type. Aquatic vegetation varies with salinity and includes marine, estuarine and fresh water vegetation.

THE SETTING
All of these plant communities provide habitats for various species of wildlife. The coastal wetlands are especially important. Northern bald eagles, osprey and migratory waterfowl are dependent on these areas as are many other species.

Human presence has had a impact on the physical nature of the coast area in the past 200 years. Many features have been altered through accelerated erosion, fire, logging and grazing and clearing of the land. Dune stabilization and the introduction of European beachgrass in the '30's caused great changes in the appearance of the coast. The beachgrass has become naturalized, forming a nearly continuous foredune along the coast. This foredune has stopped the inland movement of sand and helped create the wet deflation plain found on the lee side of the foredune.

More detailed information on the physical resources is found within each park and in the Appendix.

SCENIC QUALITIES

Within the state parks being studied, there are a wide variety of scenic attractions and varied landscapes. Rugged basalt headlands, broad sandy beaches, evergreen forests and expansive ocean vistas form the background for recreation of the coast. Each park has its own unique character and scenic value based on its size, location and physical attributes.

Areas of special scenic importance have been identified in the Tillamook County Comprehensive Plan. All of the state parks and waysides being studied fall under this scenic importance designation, either through direct identification or because they are within the one-mile wide scenic corridor designated along Highway 101 and the Three Capes Scenic Route.

Of particular interest are the following designated scenic areas:

- The headlands at Oswald West State Park
- The sand spit at Nehalem Bay State Park
- The headland at Cape Meares State Park
- The area between Cape Meares and Oceanside State Parks
- The area around the community of Nesikowin.

CULTURAL CHARACTERISTICS

The coast has been inhabited for hundreds of years but only since the 1930's has there been much growth in the coastal communities. In the recent past economic activities at the coast have been those of forest products, fishing and
and agriculture which were all natural resource-based. Now another activity, which is also natural resource based, is becoming important: tourism. In the future, it is expected that tourism will play an increasing role in the economic life of the coast.

The success of tourism will depend on the ability of local communities to provide the necessary amenities of food and lodging and on agencies such as State Parks to protect the natural beauty of the parks while providing for the comfort of the visitors.
PURPOSE OF THE MASTER PLAN

In accordance with the Oregon Revised Statutes, park master plans are prepared to guide the development and use of each state park. Each plan includes "an assessment of resources and a determination of the capacity for public use and enjoyment of each park."

ORS 390.180

Master plans are developed to provide information and guidance to managers and staff involved in the decision-making process, as well as to the general public. The plans are a tool to be used in day-to-day management and long-range planning. They are useful references for information on all aspects of park resources and agency coordination.

The process of developing park master plans is continually evolving and improving as pressures increase to provide more and better recreation facilities and yet preserve our natural heritage.

The master plans allow these two occasionally conflicting needs to be addressed rationally and clearly. The completed plans provide for the development of the most appropriate recreation facilities while protecting those natural and cultural features which are the basis for the State Park System.
THE MASTER PLANNING PROCESS

Public Announcement

This action initiates the master planning process. Appropriate state and local media, various agencies and groups are notified that master plans are being prepared for one or more state parks.

Site Research and Analysis/Mapping

Information is gathered about the natural and cultural features found in and around each park. Public agencies and private experts are contacted as are local governments, special-interest groups and concerned citizens.

Existing features such as topography, buildings, and boundaries are mapped on park base maps.

Inventory Maps and Composite

The information gathered during the research phase is mapped on a series of transparent overlays. Mapped information includes geology and geologic hazards, soil types, land forms, water features, vegetation, wildlife habitat, scenic resources, and relevant historic and cultural data. These overlays are placed on top of one another and a composite map is formed. This map shows which areas of the park are suitable for development and which areas need protection.

Land Use Plan

The information from the composite map is used to formulate the Land Use Plan.

Each parcel of park land is assessed for the quality of its natural and recreational resources, and for the natural resource systems' ability to tolerate development impacts. Each parcel is assigned an appropriate land use designation.

The land use plan is the basis for future park development and management. See Land Use Plan section for more detailed information on this aspect of planning.
Recreation Needs Analysis

While the land use plan is being prepared, a determination is made about the recreation capacity of the park and the recreation needs of the park visitors. A park visitor survey is often conducted and the park staff is interviewed to help determine the recreation needs of the park. Local government agencies are contacted for information on recreation needs and uses.

Preliminary Plan

The Land Use Plan and the information gathered from the recreation needs analysis are used together as the basis of the preliminary development plans. These plans outline park development for the next 20 years.

Public Input and Plan Review/Review and Analysis

After the preliminary plans are prepared, they are presented to the general public, government agencies, and various organizations. Comments are received and analyzed, and incorporated into the plan if appropriate. During the review period, park planners begin preparation of detailed management documents.

Draft Final Plan

The draft final plan is prepared.

Parks Advisory Committee/APA Adoption

The draft final plan is presented to the Parks Advisory Committee and then adopted by Administrative Rule under the Administration Procedures Act. If an additional public meeting is requested, it is held at this time.

Final Plan

The final plan takes 2 forms: a summary plan prepared for the general public and a detailed notebook prepared primarily for park managers, planners and administrators. These documents are published and distributed.
STATE PARKS
MASTER PLAN
PROCESS

PUBLIC ANNOUNCEMENT

SITE RESEARCH & ANALYSIS
MAPPING

INVENTORY MAPS & COMPOSITE

LAND USE PLAN

RECREATION NEEDS ANALYSIS

PRELIMINARY PLAN

PUBLIC INPUT & PLAN REVIEW

REVIEW & ANALYSIS

DRAFT FINAL PLAN

PARKS ADVIS. COMMITTEE
PUBLIC MEETING
(if required)
A.P.A. ADOPTION

FINAL PLAN
print and distribute
THE LAND USE PLAN

The Land Use Plan forms the basis of park development and management. The Plan identifies both the quality and distribution of the park's natural resources as well as development potentials.

The plan is derived from natural and cultural resource information. Geologic features and hazards, soil types, land forms, water features, vegetation, wildlife habitat, scenic resources and relevant historic and cultural information are all mapped as transparent overlays. The various types of information are then assessed for their value within the park and a decision is made about the appropriate land use classification for the resource. A composite map is then made which shows all the areas to be protected and those areas where development can safely occur. From this the Land Use Plan is made.

There are four land use designations used in the Land Use Plan:

Protection

These are lands with important resources or attractions which need to be protected. Activities are limited to those with minimal impacts on the resources. Developments are limited and management is restricted.

Management

These are lands with common resource and recreation qualities. Activities which have moderate impacts on the resource are allowed. Developments are small in scale and management activities are unobtrusive.

Development

These lands are suitable for intensive recreation development. Activities which have potentially high impact on the resource are allowed. Major alterations to the resource may occur. Appropriate recreation-related developments and support facilities are allowed as are any necessary management activities.

Surplus

These are lands which have been identified as not suitable for state park purposes. These lands may be retained, sold or exchanged and managed for profit, exchange or sale. These lands will not be developed for recreation.

The following Land Use Classification chart lists typical kinds of allowed developments and management activities. Specific development proposals are listed in the Development Section for each park in the master plan.
LAND USE CLASSIFICATION CHART

This chart explains in general terms the four land use classes used in park planning. The chart describes the features of each land use class, the typical activities allowed in that class, the kinds of development found there and the management objectives of that class.

The examples cited in these descriptions are given to illustrate what may typically happen in any land use class, not to limit what could occur in that class.

The specific activities, developments and management goals for individual parks and waysides are given in the master plan prepared for each park.

During the negotiations with Tillamook County, one item of confusion arose. The land use designation in our parks list generic types of land use. Some of these typical uses are not allowed in a Shoreland Overlay zone. The county's recent approvals may be construed so as to allow these inconsistent types of uses. In order to allay this confusion, we will add the following language to the master plan in the general area of land use designations.

"The State Parks Division recognizes that Goal 17 may preclude some of these typical land use activities. This is reflected in the specific development proposal for each park in the project summary section."
### OREGON STATE PARKS AND RECREATION DIVISION

#### LAND USE CLASSIFICATIONS

<table>
<thead>
<tr>
<th>Class and Description</th>
<th>Typical Activities</th>
<th>Typical Development</th>
<th>Typical Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROTECTION:</strong></td>
<td>Activities having low impact on the resource, such as pedestrian use, fishing swimming, non-motorized boating, nature and scientific study. Little alteration to the resource will occur.</td>
<td>Trails, signs, rustic bridges, simple interpretive devices, self-contained toilets.</td>
<td>Natural processes are encouraged, as long as public health &amp; safety are not endangered. Allows fire, disease, and insect control that does not alter the resources more than that naturally occurring; other management practices required for public safety and to prevent the loss of developments, resources or personal property on or adjacent to the park.</td>
</tr>
<tr>
<td>Land with important or unique park attractions such as scenic or geologic features, fish, wildlife, and plant habitats, historic sites, or ecologic areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| MANAGEMENT: | Activities having moderate impact on the resource, such as bicycling, equestrian use, primitive camping, dispersed picnicking, and any activities allowed in PROTECTION class. Minor alteration to the resource may occur. | All of the above plus primitive campgrounds, simple equestrian facilities, dispersed picnicking facilities, utilities, structures, boat ramps & docks, secondary roads & parking lots, fire breaks, quarry & barrow pits. | Allows the minimum resource manipulation required to accomplish specific objectives such as insect & disease control, fire prevention & suppression, wildlife habitat improvement & visual resource enhancement. |
| Land with general park attractions of lesser quality than those which qualify as PROTECTION which are suitable for limited recreation activities. These lands may be used for open space, buffer zones, soil stabilization, demonstration forests, and maintained water sheds. | | |

| DEVELOPMENT: | Activities having potentially high impact on the resource. All appropriate recreation activities are allowed. Major alteration to the resource may occur. | All recreation related development and support facilities. | Allows appropriate management activities required for the safe and enjoyable use of the area. |
| Land suitable for intensive recreation development. | | |

| SURPLUS: | No recreation activities will be proposed for these areas. | Any non-recreation development required to manage these lands that is not disruptive to park resources in areas in other land use classifications. | Allows management of these lands for profit, exchange or sale. |
| Land not suitable for PROTECTION, MANAGEMENT or DEVELOPMENT classification which may be retained, sold or exchanged. | | |
### LAND USE PLAN SUMMARY

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>Protection</th>
<th>Management</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OSWALD WEST</strong></td>
<td>2474.43</td>
<td>71%</td>
<td>28%</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1756.85</td>
<td>692.84</td>
<td>24.74</td>
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</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>Protection</th>
<th>Management</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEHALEM BAY</strong></td>
<td>878.42</td>
<td>8.0%</td>
<td>57.5%</td>
<td>34.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70.30</td>
<td>505.10</td>
<td>303.02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>Protection</th>
<th>Management</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPE MEARES</strong></td>
<td>232.84</td>
<td>87.0%</td>
<td>8.3%</td>
<td>4.7%</td>
</tr>
<tr>
<td>(94.34 Ac. State Park; 138.5 Ac. USF&amp;W)</td>
<td></td>
<td>202.64 Acres</td>
<td>19.30 Acres</td>
<td>10.90 Acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Includes all of USF&amp;W Property)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>Protection</th>
<th>Management</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEAHKAHNE-MANZANITA</strong></td>
<td>1.25</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.25 Acres</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>Protection</th>
<th>Management</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MANHATTAN BEACH</strong></td>
<td>41.0</td>
<td>0%</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30.8 Acres</td>
<td>10.2 Acres</td>
</tr>
<tr>
<td>Location</td>
<td>Acres</td>
<td>Protection</td>
<td>Management</td>
<td>Development</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Rockaway Beach</td>
<td>3.02 Acres</td>
<td>0%</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Twin Rocks</td>
<td>22.0 Acres</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Oceanside Beach</td>
<td>7.32 Acres</td>
<td>0%</td>
<td>78%</td>
<td>22%</td>
</tr>
<tr>
<td>Neskowin Beach</td>
<td>7.95 Acres</td>
<td>0%</td>
<td>79%</td>
<td>21%</td>
</tr>
</tbody>
</table>
There are two major parts to each master plan. One is the summary document prepared for the general public and the other is the detailed management notebook prepared primarily for park staff use.

Plan Summary Document

The summary document describes briefly the existing conditions, the proposed land use plan and the general development plan for each park. This document is sent to all affected public agencies and interested citizens.

The Notebook

The notebook includes the same information that is found in the summary plus additional information on the natural and cultural resources of the parks, detailed development proposals and costs, park management goals and objectives, resource management techniques and detailed planning data.

The notebook provides the detailed background information necessary for park management. It is a tool for the park manager, the planning staff and the park administration to use in future park planning and day-to-day management.

Notebook Information and Organization

Most notebooks contain information on more than one park. When this is the case, the general information which pertains to all parks is presented first in the Background section. The specific information for each park is presented under that park's heading. General Planning data for all parks is placed together after the specific park information. Appendix data for all parks follows this.

Additional Information

In addition to the detailed information presented in the notebook, there are also lists of references and people to contact if further information on a particular topic is needed.

The office staff who prepared the notebooks are a good source of information for the field. These landscape architects, planners, natural resource and forest management specialists can be contacted at any time for further clarification and information on planning, development and management issues. See the list of staff at the beginning of this document.
Throughout this plan, reference is made to The Nature Conservancy (TNC) and to their program of resource protection.

The Nature Conservancy is a private national, nonprofit corporation committed to preserving the diversity of the natural world by protecting and preserving the lands and waters which support the best examples of all the elements occurring in nature. To help in this goal, The Nature Conservancy implemented state Heritage Programs throughout the country in order to identify and inventory ecologically significant areas, and organize and maintain the gathered information into a data base. Ecologically significant areas are those sites with rare, threatened, or endangered elements, which include plant communities, plant or animal species, aquatic ecosystems and geologic features.

The Oregon Natural Heritage Data Base (ONHDB) is operated by The Nature Conservancy in cooperation with the Division of State Lands through the Oregon Natural Heritage Advisory Council. A primary goal of the program is the implementation of the Oregon Natural Heritage Plan, a document adopted by the State of Oregon in 1981. This plan outlines "natural heritage resources" to be protected in all parts of Oregon. These include ecosystem types or "cells" as well as threatened or endangered species.

Some state parks have excellent examples of these cells and/or threatened species. In many cases sites within the parks are among the finest of their kind to be found in the state, and are specifically mentioned in the Oregon Natural Heritage Plan. In those cases where a "cell" is identified on State Park land, it will be maintained and protected in its natural condition. In many cases a good quality ecosystem representation is found in a park but it is not large enough to qualify as a "cell". It will be maintained and protected In its natural condition to the extent possible. Individual rare, threatened or endangered species will also be given as much protection as is possible.
PARK MANAGEMENT

MAINTENANCE & OPERATION

All the parks and waysides, except Neskowin Beach State Wayside, are managed from Cape Lookout, the District Headquarters Park. Neskowin is operated from Beverly Beach District Park.

There are additional maintenance facilities at Nehalem Bay and at Oswald West.

The maintenance facilities at Nehalem Bay consist of:

Work Shop - 24'x128', wood frame building with office and six bays.

Service Yard - 150'x150', paved with separate employe parking and storage yard.

Service Station - 6.6'x13.6', concrete block, with gas pumps and lockable storage area.

Maintenance facilities at Oswald West consist of:

Work Shop - 22'x28', wood frame building with two bays.

Service Yard - graveled.

MAINTENANCE STAFF

The permanent maintenance staff includes 10 people at Cape Lookout and four at Nehalem Bay. Additional people are added during the summer. Cape Lookout adds eight seasonals plus two people to handle the day-use areas. They also contract with a private company to maintain the restrooms. Eight seasonals are added at Nehalem Bay.

MANAGEMENT GOALS

The key management goals are to improve the recreation quality of the park, maintain conditions favorable to public health and safety, establish good public relations, and achieve the most efficient management.
INTERAGENCY COORDINATION

An extensive amount of cooperation is involved in the management of these parks.

Management of boating activity at Nehalem Bay comes under the regulations of the State Marine Board. Any new proposals involving safety, control, and regulation of boating require coordination through the State Marine Board.

At Cape Meares, Parks has a joint use agreement with the U.S. Fish and Wildlife Service which describes the various rights and responsibilities of both agencies. (See Management Section on Cape Meares for discussion of specific elements of that agreement.)

There are other state parks and waysides that are adjacent to offshore properties of the U.S. Fish and Wildlife Service. The following parks and waysides have been identified by the Ocean Shores Coordinator of the Oregon Parks and Recreation Division, as existing or potential sites for USFWS signs and/or leaflet distribution: Oswald West, Rockaway Beach, Cape Meares and Oceanside Beach. US Fish & Wildlife Service and parks will cooperate in the placement of these signs.

Fishing and wildlife regulations and enforcement are handled by the Oregon Department of Fish & Wildlife.

The State Forestry Department in Tillamook and various local fire departments provide fire protection. The Oregon State Police, local police and county sheriff provide police protection.

New improvements not covered in the master plan which will create increased public usage or visitor densities require review by the Tillamook County Planning Office. If usage of the park increases to such a degree that more highway directional signage is required, coordination with the Highway Department is necessary.

Water and sewage projects are coordinated with the State Department of Environmental Quality.

NATURAL RESOURCE MANAGEMENT

The primary objective in natural resource management is to conserve and retain natural resources whenever possible. (Refer to the Site Inventory section of this document for detailed recommendations on each of the natural resource categories.)

PARK MANAGEMENT
EMERGENCY PROCEDURES PROGRAM

State Parks has an official Emergency Procedures Program. The document, which is separate from this report, is a description of official procedures to be followed in case of emergency or when special problems not normally encountered in the daily routine of park operations occur. The Emergency Procedures program is periodically reviewed and updated by the park management staff to ensure quick, efficient response to emergencies.

The Emergency Procedures Program covers the following items.

I. Emergency radio and telephone numbers.

II. Fire
   A. Oregon Fire Rating Index
   B. Fire Emergency Procedure - Park Personnel
   C. Available Fire Equipment
   D. Fire Prevention and Training

III. Emergency Medical Assistance Program
   A. Accident and Dead Body Procedures

IV. Lost Persons

V. Civil Disturbances

VI. Sewer System Failures

VII. Water System Failures
In addition to specific forest and vegetation management guidelines provided for each park and wayside in this master plan, there are three other documents which provide policy and guidelines for the park manager. They are:

**Administrative Rules for Management of State Park Forests.**

Adopted in 1986, these rules ensure the protection of important natural resources and the involvement of the public in significant forest management decisions.

**Management Procedures for Sales of Timber and Miscellaneous Forest Products.**

This document ensures the proper authorization and execution of timber and forest product sales.

**Policy Statement for State Parks Fire Prevention Program and Fire Fighting Procedures.**

This document provides guidelines for developing and maintaining a fire protection program and fire fighting procedures for each park to protect the park visitor, park property and facilities, and property of adjacent landowners.

Copies of these documents are in the Appendix.
EXISTING CONDITIONS

Location: 3 Miles north of Manzanita on U.S. 101, Tillamook County and small portion in Clatsop County.

Acreage: 2474.43 Acres.

Description: Oswald West State Park, one of the largest of the coastal state parks, enjoys the spectacular natural setting of Neahkahnie Moutain. From the summit of the mountain to the steep cliffs along the ocean, this park encompasses a wide variety of natural features. Its pristine condition has long made it a favorite with park visitors.

Neahkahnie Mountain rises steeply above the ocean; at 1,795 feet, it is one of the most prominent headland mountains on all the Pacific Coast. Much of the mountain is densely wooded with Sitka spruce and western hemlock, but open grassy meadows and shrublands provide visual variety as well as habitat for deer and elk.

The Coast Highway, set 800 feet above the ocean, provides spectacular views of the coastline and the adjacent Pacific Ocean. From the top of Neahkahnie, accessible by foot trail, panoramic views of the Coast Range are available.

Although much of the park is steep and hilly, there is a small beach area and protected cove just south of Cape Falcon. A walk-in campground is located here adjacent to the ocean, sheltered under towering old-growth spruce and hemlocks. Numerous foot trails provide access to other features and viewpoints along the trails.

Day-Use Facilities: Picnic facilities at beach and highway (46 units), restrooms, paved parking.

Average Annual Day-Use Attendance
Overnight Facilities: Campground with 36 primitive tent sites, restrooms, water, accessible by 1/4 mile paved trail, wheelbarrows available for transporting gear and equipment.

Average Annual Overnight Attendance 1980-1985: 10,125.

Recreation Activities: Camping, picnicking, swimming, surfing, beach activities, hiking, nature study.
PROTECTION 1756.85 Acres 71%

Most of Oswald West State Park is in the Protection class because of the pristine condition and diversity of its natural resources. Some outstanding geographical features within the park include the summit and much of the base of Nehkahnie Mountain, the Arch Cape and Cape Falcon headlands, Short Sands Beach and three coastal stream drainages.

A variety of significant natural ecosystems are in the Protection class, including headland grasslands, headland shrublands, and old-growth forest communities. A small rock garden plant community is found near the summit of Nehkahnie. Three rare and endangered species of plants occurring in the park are included in the Protection land use class.

Water-based ecosystems include two subtidal marine ecosystems found at the shoreline of the park and a small coastal stream drainage system contained entirely within the park.

Many species of seabirds breed and feed within the park, and other species of wildlife including deer and elk use the various habitats found within the park. An eagle’s nest is located near the cliffs at the ocean’s edge.

MANAGEMENT 692.84 Acres 28%

Park lands in the Management class have been altered from their natural condition or are under active management. Included in this class are cut-over lands and the areas of blowdown which are being managed to restore them to their natural condition as quickly as possible. Some areas identified as elk range are in the Management class. These areas will be managed to encourage continued use by the elk.

DEVELOPMENT 24.74 Acres 1.0%

A very small portion of Oswald West is in the Development class. Only those areas which are presently developed are included in this class. No other areas are suitable for further development.
DEVELOPMENT PLAN SUMMARY

DEVELOPMENT PLAN OBJECTIVES

Maintain the pristine condition of the natural resources of the park.

Provide recreation opportunities which do not adversely affect those natural resources, but allow for diverse experiences within the park.

RECREATION OPPORTUNITIES

Steep, heavily wooded slopes restrict the development of recreation facilities in this park. Except for a small walk-in campground and some day-use picnicking and parking area, there is little in the way of recreation development. Other recreation facilities consist of foot trails providing access to the more remote areas of the park, and scenic roads which provide views and vistas of the surrounding landscape.

The topography and pristine condition of the park's natural resources preclude developing additional recreation facilities. Existing park facilities will continue to be rehabilitated and improved as necessary. Minor structures, such as picnic shelters, will be added as needed.

IMPACTS OF PROPOSED PARK DEVELOPMENT

Implementation of the proposed park development program will have little effect on the present level of park use. The proposed changes are minor, consisting mostly of rehabilitation and restoration.

There will be no effects on areas outside the park as a result of these improvements.

HANDICAP ACCESSIBILITY

Parking facilities and paved trails are handicap accessible. Restrooms, drinking fountains and stove shelters do not meet accessibility requirements.
## Project Summary

<table>
<thead>
<tr>
<th>Capitol Improvement Projects</th>
<th>Rehabilitation Projects</th>
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<td>Picnic Shelter Construction</td>
<td>Shop Building Replacement</td>
</tr>
<tr>
<td>2 @ $30,000 each</td>
<td>$35,000 (maximum)</td>
</tr>
<tr>
<td>Trailhead Construction</td>
<td>Restroom Remodel or Replacement</td>
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<tr>
<td>Neahkahnie Mountain-$15,000</td>
<td>$50,000</td>
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Capitol Improvement Projects  PICNIC SHELTER CONSTRUCTION

2 Locations

Construction Cost (1987):  $30,000 each

Annual Maintenance Cost:  $3,000 each

Existing Conditions:

Neither of the two prime picnic areas in Oswald West State Park offer shelter during inclement weather.

Proposal:

Construct picnic shelters at the picnic area east of Highway 101 and at the picnic area at Short Sand Beach.
Capitol Improvement Projects

TRAILHEAD CONSTRUCTION

2 Locations: U.S. 101 and on Neahkahnie Mountain

Construction Cost (1987): $5,000 @ U.S. 101, and $15,000 @ Neahkahnie

Annual Maintenance Cost: $500 and $1,500

Existing Conditions:

There are many trails throughout Oswald West State Park, but few trailhead developments with signs and maps of the hiking opportunities in the park.

Proposal:

Construct a trailhead at the small picnic area off U.S. 101 near the blowdown area. Utilize the existing parking and provide picnic tables and map sign showing the trails of the park.

Construct a trailhead in the southern part of the park for the trail that goes to the summit of Neahkahnie Mountain. Provide parking, signs and picnic facilities.
Capitol Improvement Projects

FOOT TRAIL CONSTRUCTION

Construction Cost (1987): $15,000

Annual Maintenance Cost: $4,000

Existing Conditions:

In order to clean-up the timber blowdown of 1983, logging roads were built in the interior of the park. These roads remain and can be used for pedestrian access to the interior of the park. Some of the roads will need to be maintained for fire control and management access.

Proposal:

Vegetation will be allowed to reclaim part of the logging roads to reduce the width to a more pedestrian scale. Some connections to existing foot trails will need to be made.
Rehabilitation Projects

SHOP BUILDING REPLACEMENT

Construction Cost (1987): $35,000 (maximum)

Annual Maintenance Cost: 

Existing Conditions:
The existing shop building is in poor condition.

Proposal:
Replace the existing building with a new structure when the need arises and funds are available.

OSWALD WEST
Rehabilitation Projects RESTROOM REMODEL AND/OR REPLACEMENT
Parking Lot on East Side of U.S. 101

Construction Cost (1987): $50,000 (maximum)

Annual Maintenance Cost:

Existing Conditions:

The restroom at the picnic area adjacent to Highway 101 is deteriorating and will require eventual rehabilitation or replacement.

Proposal:

Determine the extent of deterioration to the structure. Remodel the restroom or replace it, if necessary.
Treasure Hunters on Nehkahnie Mountain

Interest in the legends of buried treasure in the area in and around Nehkahnie Mountain results in continuous requests for permission to excavate in the park. This is discouraged as much as possible and only allowed under stringent conditions imposed by the State Historic Preservation Office. Conditions include but are not limited to the following:

Permission must be obtained and all appropriate safety procedures followed. No motorized vehicles or power equipment are allowed. All work must be done by hand under an archeologist's supervision. All equipment and supplies must be packed in and out, vegetation re-established and the site returned to its original condition.

Electronic Equipment at the Summit of Nehkahnie Mountain

Over the years, a large amount of electronic equipment has been installed on the summit of Nehkahnie Mountain. Much of this equipment is necessary for public welfare, but the overall effect is unsightly.

If any agencies or companies stop using their equipment, they will be required to remove the equipment and return the site to its original condition. No additional facilities will be installed.

The access road to the summit of Nehkahnie will be maintained in its present condition, but not improved.
NEAHKAHNIE MOUNTAIN

Oswald West State park is located on one of the most prominent geographic features along the Oregon coast—Neahkahnie Mountain. This very steep and massive headland is one of the highest headlands on the coast. It is made primarily of volcanic rock consisting of massive basaltic breccias and basaltic flow rocks with intrusive basalt. Much of the park is in an area of very steep slopes, often exceeding 25%. Neahkahnie Mountain rises from the hilly terrain of Astoria Formation. The mountain consists of coarse-textured basaltic rock which is coarser than the basalt found at other headlands.

This park is dissected by numerous small drainage channels including Short Sand Creek and Necarney Creek.

There are a few offshore rocks at the base of Neahkahnie and Cape Falcon.

MARINE TERRACE

There are a few flat areas within the park. Among them are the flat grasslands near Highway 101 and the area above Short Sand Beach where the walk-in camp is located. This is an old marine terrace, heavily wooded and protected to a degree by the basalt cliffs of Neahkahnie to the south and Cape Falcon to the north.

ROUND MOUNTAIN

A small geologic feature called Round Mountain is located in the northern portion of the park.

SHORT SAND BEACH

The only beach area is Short Sand Beach, located within a small cove known as Smuggler's Cove bounded by Neahkahnie to the south and Cape Falcon to the north. Smuggler's Cove is of the Astoria formation.

CAPE FALCON

The Cape Falcon coastal headland is made of two points separated by a very small cove covering about 75 acres. It is made of basalt that correlates to the Columbia River basalt formation. This dense, hard rock has been eroded by wave action into promontories and cliffs that rise to heights of 300' above the ocean. The basalt is overlain by sedimentary rock of the Astoria formation on portions of the headland.
GELOGIC HAZARDS

Neahkahnie Mountain

Neahkahnie Mountain is made primarily of volcanic rock—massive basaltic breccias and basaltic flow rocks with intrusive basalt.

An exposed portion of the hillside on the north shows vegetative and soil creep on the upper hillside, debris slump or shift in the middle and block slide on the lowest reaches of the hill. The southern portion of the headland is eroded by block falling.

Cape Falcon

On the south side of Cape Falcon, large blocks of sandstone are sliding over the south-dipping beds of Astoria formation onto the beach.
Slopes Over 10%

QMT - Marine Terraces
TI - Intrusive Rocks (Basaltic Rock)
TMA - Astoria Formation (Sand & Siltstone)
    (All Old Landslide Topography)

TMV - Volcanic Rocks
TOMS - Sedimentary Rocks
          - Active Landslide
          - Inactive Landslide
Soils at Oswald West State Park vary from silt loam to beach sand to rock outcrops. Unfortunately this part of Tillamook County has not been mapped and there are no plans at this time to do so. That information will be included in the notebook when it becomes available.
Oswald West State Park consists mostly of a headland with relatively little in the way of water features. There are some areas of rocky intertidal marine shore lands at the base of the headlands.

NECARNEY CREEK

Necarney Creek flowing through the park to the ocean, is classified as broad-leaved deciduous, scrub/shrub, intermittently flooded, palustrine system.

SHORT SAND BEACH

Short Sand Beach is the only area of sandy beach in the park. This 0.4 mile-long area is affected by tidal activity.

COASTAL STREAM

Contained entirely within Oswald West State Park is a high quality coastal stream system. The stream originates in the Sitka spruce zone and is in native condition for its entire length, except for a small portion disturbed by recent timber salvage activities. At the mouth of this creek is a waterfall near the north end of Short Sand Beach. The waterfall is near a contact zone between basalt and sedimentary rock formations and it is likely that the stream bed follows this contact.
NATURAL PLANT COMMUNITIES

There are a wide variety of natural plant communities in excellent condition in Oswald West State Park. The most significant of the nine communities are the old-growth forest communities of which there are three types. Due to extensive logging occurring outside the park boundaries, Oswald West is one of very few areas where uncut examples of these forest ecosystems remain.

OLD-GROWTH SITKA SPRUCE/SALAL FOREST (1D)

Description

Nearest the ocean is the Sitka spruce/salal forest. This community consists almost entirely of Sitka spruce trees in the overstory with salal predominating in the understory. Some areas have concentrations of Pacific reedgrass, salmonberry and sword-fern in the understory. This forest type is able to withstand the rigorous conditions of high wind and salt spray found close to the ocean. The forest is fairly open with wind-pruned trees in exposed areas. The oldest trees here are 230-250 years old. Along the southeast edge of Cape Falcon, the forest is younger, perhaps 120 years old. The area near Short Sands Beach is disturbed by heavy use. Other areas are pristine.

Status

According to the Natural Heritage Data Base this type of plant community is endangered in Oregon and has very high priority for protection. ONHDB has determined that Oswald West and Cape Lookout are the only remaining good examples of the Sitka spruce/salal forest in Oregon.

Management

This community and all other old-growth forests in the park will be kept as natural as possible. Downed and damaged timber will be allowed to remain, decay, and regenerate naturally. Exceptions to this will only occur when the area is threatened by fire, disease or infestation which would have worse consequences than if it were left alone or when the health, safety and well-being of the public is endangered, or if park facilities are threatened. The research value of the undisturbed old-growth forests at Oswald West is recognized and the Parks Division will cooperate with appropriate research projects.
OLD-GROWTH SITKA SPRUCE-WESTERN HEMLOCK/SWORD-FERN FOREST (1E)

Description

Adjacent to the Sitka spruce/salal community, but farther away from the wind and salt spray is the Sitka spruce-western hemlock/sword fern community. Western hemlock is a major component of this forest type and old cedars are occasionally found here. As a pure stand of Sitka spruce reaches maturity it stops reproducing effectively because of the shady conditions. Since hemlock seedlings do well under a dense canopy, they move in. If there are no disturbances, the western hemlock eventually predominates in the canopy. However, with the frequent wind storms and occasional fires at the coast, this is rarely the case. The hemlocks in this forest range in age from seedlings to about 200 years, while relatively few spruce trees are younger than 70 years old and the oldest are around 240 years old. Old windthrows in various stages of decay litter the forest floor, serving as nurse logs for hemlock, huckleberry and salal. Other understory plants are salmonberry, leather-leaved polypody and oxalis.

Status

This type of plant community is very rare or threatened in Oregon (ONHDB, 1985). The forest in Oswald West has high value for ecological research. The size of this natural community was somewhat reduced on Cape Falcon by a salvage logging, tree planting and trail rehabilitation operation following the November 13, 1981 windstorm.

Management

The remaining old-growth forest that is undisturbed by human actions is recognized by the Parks Division for its outstanding research value. The area will be managed to provide education and dispersed recreation opportunities. Additional management information can be found in the Altered Vegetation Section.

SITKA SPRUCE-WESTERN HEMLOCK-DOUGLAS-FIR/SALAL FOREST (1F)

Description

Near the 1695 foot-summit of Nehkahnie Mountain, on the southwest slope, is an interesting forest covering about 30 acres. Some of the Douglas-fir here are very old.

VEGETATION
Fire has played a major role in the composition of this forest. The relatively open forest is made up of large old-growth Douglas-firs with visible fire scars and younger spruce and hemlock that have invaded since the area burned in 1945 when a slash fire got out of control and scorched much of the mountain. It is likely that in earlier times the Native Americans burned wooded areas to maintain them for berry fields and big game habitat. The understory of this forest consists of salal, salmonberry, huckleberry and Pacific reedgrass.

Status

This community has excellent pristine quality for scientific research. The only drawback is the small size.

Management

Management will be the same as the other natural forest communities in the park. This forest has interpretive potential because of the fire history and the proximity to the Neahkahnie Trail.

HEADLAND SHRUBLAND COMMUNITY (IC)

Description

Covering about 120 acres within Oswald West is another ecosystem in excellent condition, the headland shrubland community. It occurs on areas of steep slopes and where there has been a history of fire. The most dominant plants of this community are salal, salmonberry, thimbleberry and sword-fern.

The shrubland community is especially well represented on the lower south and west slopes of Neahkahnie adjacent to Pacific reedgrass openings.

Highway 101 passes through the shrubland as does the Pacific Coast Trail. Small patches of this community are found on the Cape Falcon headland.

Status

This community is one of the largest and best of its kind found anywhere in the state. It is considered rare in the state by the Oregon Natural Heritage Data Base.
Management

No grazing by domestic or feral animals will be allowed to occur on these headlands. Prescribed burns will be considered if necessary to perpetuate this community.

HEADLAND GRASSLANDS COMMUNITIES (1A & 1B)

Description

Other fine examples of headland communities are the grasslands found on the slopes of Neahkahnie and Cape Falcon. These communities are found in areas where steep slopes, soil structure and movement, severe weather or fire have prevented tree and shrub growth.

The red fescue headland grassland occupies about 6 acres. Associated species include thrift, Mexican plantain, yarrow, coastal strawberry and the endangered Cascade Head catchfly. No exotic species were observed.

The Pacific reedgrass-blue wildrye headland grassland covers about 70 acres. Other species growing in this community are angelica, windflower, inside-out-flower and velvet-grass, an introduced species.

These areas are occasionally grazed by native deer and elk and are in outstanding ecological condition.

Status

Relatively undisturbed examples of these types of grasslands exist in only 4 or 5 other places in Oregon. The red fescue element is considered endangered on a worldwide basis and threatened in Oregon. The reedgrass-wildrye community is threatened worldwide and within Oregon.

Management

No grazing by domestic or feral animals will be allowed on these headlands.

Under certain conditions, controlled burning may be the best method to preserve and maintain some of the grassland communities in the park. Prescribed burning will only be done under strict control by persons experienced with this management technique. Protection or enhancement of rare and endangered plants and communities will be considered in any prescribed burn.
The Oregon Departments of Forestry and Fish & Wildlife will be contacted prior to any burning in order to assist with the planning and execution of the burn.

MARTINDALE'S LOMATIUM ROCK GARDEN COMMUNITY (1G)

Description

Martindale's lomatium rock garden plant community is found in small patches along the ridgetops of Neahkahnie. It is found in areas of bare rock on thin soil on south-facing slopes. Plants found in this community include lomatium, red fescue, coastal strawberry, common yarrow, woolly sunflower, kinnikinnik, nodding onion, coast fawn-lily and blue-eyed Mary. This community presents a colorful bloom in the spring. It is in excellent condition due in part to its relative inaccessibility.

Status

This community is rare or threatened globally and rare in Oregon. The Neahkahnie occurrence is probably too small for formal research, but valuable for its contribution to the diversity of the area and its scenic appearance.

Management

In order to protect this fragile plant community found near the summit of Neahkahnie Mountain, trails will be kept in their existing primitive state.

MARINE VEGETATION (ROCKY SUBTIDAL 1H)

Description

Within the marine ecosystems described in the water features section of the site inventory are found both vegetated and unvegetated subclasses. The unvegetated type occurs where wave energy is highest and aquatic plants cannot take hold. The vegetated types are found in more protected areas. Plants found here include surfgrass, floating kelp and submerged kelp.

Status

The vegetated rocky subtidal ecosystem is secure worldwide but rare in Oregon. Because of the large size, high diversity and inaccessibility of this community at Cape Falcon and Neahkahnie Mountain, they are considered to rank among the best examples in Oregon.
Management

The lack of easy access to these areas is sufficient to protect them.

ALERTED VEGETATION COVER TYPES

OVERVIEW

After a severe blowdown in 1981, portions of the old-growth forests were
salvage-logged. Most of the area was replanted with Douglas-fir, western red
cedar and western hemlock. Spruce and hemlock are regenerating naturally.

SITKA SPRUCE/SALAL FOREST (ALERTED, 3D)

Description

An 8 acre area north of the Short Sand's campground was salvage-logged
in 1982. The understory is dominated by sword-fern. Douglas-fir and
western red cedar seedlings were planted here. North of Round
Mountain at Elk Flats is a spruce/salal cover type with trees dating from
1910. Scattered trees are substantially older. On the upper slopes of
Arch Cape is a younger, more disturbed stand. Some patches in the
north end are quite shrubby or grassy. Other areas have experienced
considerable blowdown.

Management

The main management objective in the salvaged area near Short Sands is
to strive for the development of a nearly natural Sitka spruce/salal
forest. The forest at Elk Flats will be essentially unaltered except for
removal of hazard trees near roads. The portion of the forest to the
northeast of Highway 101 on Arch Cape will receive consideration for a
controlled burn to create and maintain a shrub/grass community on the
south slope.

SITKA SPRUCE-WESTERN HEMLOCK/SWORD-FERN FOREST (ALERTED, 3E)

Description

The spruce-hemlock/sword-fern (altered) cover type is the largest
altered cover type in the park. This type can be sub-divided into parcels
with eight distinct histories.

About 180 acres on the south slope of the Cape Falcon summit and
40 acres northeast of Round Mountain east of the highway at Elk
Flats were salvaged-logged after a severe wind storm in 1982.

Fifteen to twenty acres between Short Sands campground and the
parking lot have been altered for trails and picnic sites.

VEGETATION
South of Round Mountain is about 55 acres of this type. It was clear-cut around 1935 by a previous landowner.

About 40 acres west of the highway on Elk Flats is a forest dating mainly from 1910 with scattered older trees. The source of disturbance is unknown.

In a small area northeast of the Cape Falcon blowdown, previous owners made selective cuts near the roads in 1955.

Southeast of the blowdown area previous owners clear-cut 42 acres in 1965. It now has a second-growth forest.

A large parcel north of Nehkahnie Mountain was clear-cut in 1965 and now supports a second-growth forest.

Another large tract east of Nehkahnie Mountain was clear-cut in 1950 and is now mostly reforested. Much of this land lies on south-facing slopes. The sparsely forested areas will be checked for the occurrence of grasslands, shrublands, Martindale's lomatium rock garden communities and rare and endangered plant species.

**Management**

On the south slope of Cape Falcon summit the roads, ditches and culverts will be maintained for trails, fire control and access for trail and water system maintenance. Natural vegetation will be allowed to encroach to form a narrow lane. Blowdown that obstructs the road will be salvaged. The reforestation project will be monitored for needs such as thinning or brush control. Skid/truck roads and a rock pit which were mulched and seeded will be monitored. Tansy ragwort will be controlled, especially in the northwest portion.

East of the highway at Elk Flats the reforestation project will be monitored and the alder at the trailhead will be controlled.

At the east end of the developed area hazard trees will be trimmed or felled and the reforested area will be protected by thinning sapling conifers and controlling alder.

No special management is needed in the 55 year-old stand south of Round Mountain or in the 75+ year-old stand west of the highway at Elk Flats.

In the 1955 selective cut area, an old log stringer bridge will be removed and an old stockpile site will be cleaned up, and the area will be planted with spruce. Alder will be killed.

**VEGETATION**
The 1950 and 1965 clear-cut areas will receive reforestation monitoring and road maintenance for fire control access. The old rock pit southeast of Neahkahnie Mountain will be stabilized.

ROADSIDE ALDERS, SHRUBS AND INTRODUCED SPECIES (3B)

Description
North of Arch Cape is a small highly disturbed coastal stream outflow area which is being reclaimed by native and introduced species. Salmonberry and salal grow densely. Scattered Sitka spruce on the hills experience windthrow.

A larger area bordering Highway 101 south of the tunnel has greater conifer cover. Another small segment of this cover type is found near the ocean and west of Neahkahnie Mountain. It has few trees.

Management
Non-native vegetation such as berry vines and shrubs will be controlled. Prescribed burns are at possibility in these areas.

CLIFF FACE, SPARSE VEGETATION

Description
Only a small tract of this type is found on Arch Cape.

Management
No special management is required.

LAWNS AND MAINTAINED VEGETATION (3C)

Description
This park has only a few acres of lawn and regularly maintained shrubbery around the main parking lots and at the roadside picnic area.

Management
The current management will continue.
RARE AND ENDANGERED SPECIES

CASCADE HEAD CATCHFLY (Silene douglasii var. orarra)

Description

This fleshy-leaved perennial forms tufts 4 to 24 inches tall. The opposite, 1 to 3 inch-long narrow leaves are found at the base and along the flowering stems. A papery, inflated base supports each white to purplish flower. The petals are deeply notched. The plant grows on steep, sunny ocean bluffs and blooms from April through August.

Status

The Cascade Head Catchfly is a candidate for federal listing under the Endangered Species Act and is considered to be endangered throughout its range by the Oregon Natural Heritage Data Base. It is only known to exist at two other locations, Cascade Head and Cape Lookout. The plant was located in 1984 on the Cape Falcon headland and may be present on the lower slopes of Neahkanie.

Local Population

About a dozen plants were observed on the southern tip of Cape Falcon in the red fescue grassland. Susan Kephart, Professor of Botany at Willamette University discovered a new colony of 10 individuals in June of 1986. It covers a 30 by 30 foot area on the middle peak of Neahkanie Mountain, several hundred feet south of the transmission equipment. Another colony has been tentatively identified on the lower slopes of the mountain.

Threats and Management

Current management is appropriate for the protection of this important species. Trampling could become a problem. Domestic and feral grazing animals will be excluded from the area.

HAIRY-STEMMED CHECKER-MALLOW (Sidalcea hirtipes)

Description

Hairy-stemmed checker-mallow stands 2 to 4 feet tall and has numerous purple-pink flowers measuring 1 1/2 inches across. The flowers look vaguely like those of their hibiscus relatives. The plant is densely covered with long, bristly hairs. It grows in meadows facing the ocean and blooms in June and July.
Status

The hairy-stemmed checker-mallow is rare but stable throughout its range.

Local Population

Large, healthy colonies are associated with the grassland and shrubland communities on the lower south and west slopes of Nehalemie Mountain and the tip of Cape Falcon. The checker-mallow is found with reedgrass, salmonberry, sword-fern and coast fawn-lily.

Threats and Management

The best protection is maintenance of the ecosystem in which it occurs.

COAST FAWN-LILY (Erythronium revolutum)

Description

The coast fawn-lily is a lovely, pink-flowering member of the lily family with mottled 5 to 7 inch-long, broadly elliptic leaves. It's six-petalied flowers are on stems which are 6 to 12 inches tall. Each petal is one half inch long, and the stigma lobes are less than one eighth inch long. This species is found in open woodlands along the coast from Vancouver Island to northern California.

Status

The coast fawn-lily, also known as the pink trout-lily, is stable presently but requires monitoring. Its habitat may be diminishing.

Local Population

Large healthy populations are associated with headland grassland and shrubland communities. More specifically, they are found in openings of the spruce-hemlock/sword-fern forest and along the edges of the rock garden community.

Threats and Management

The best protection is maintenance of the fawn-lily's habitat.

VEGETATION
Natural Plant Communities
1A Red Fescue Headland
1B Reedgrass - Wildrye Headland Grassland
1C N.Coast Headland Shrubland
1D Sitka Spruce/Salal Forest
1E Sitka Spruce - W.Hemlock/Sword-fern Forest
1F Sitka Spruce (Burn Variant)
1G Sitka Spruce - W.Hemlock - Douglas-fir/Salal Forest
1H Lomatium Rock Garden
1I Rocky Subtidal
1J Coastal Stream In Sitka Spruce Zone
2A Unvegetated Sand Beach, Intertidal Zone

Altered Vegetation Cover Types
3A Cliff Face, Sparse Vegetation
3B Roadside Alders, Shrubs & Introduced Species
3C Lawns & Maintained Vegetation
3D Sitka Spruce/Salal Forest
3E Sitka Spruce - W.Hemlock/Sword-fern Forest

Rare And Endangered Species
4A Cascade Head Catchfly
4B Hairy-stemmed Checker-mallow
4C Coast Fawn-lily
HABITATS

ELK HABITAT

Description

A large elk herd has traditionally resided year-round in the meadows, rock gardens and openings on Nehkahnie Mountain and to a lesser extent, on the higher parts of Cape Falcon. In recent years the elk have moved through the golf course and the town of Manzanita to Nehalem Bay State Park. Their occasional presence around the golf course and private homes and pastures causes some conflicts.

Typical Species

Roosevelt elk
black-tailed deer

Management

In order to encourage the elk to move back into the park it will be necessary to clear the area of the shrubby plants which have invaded the grasslands. This would involve the use of either herbicides or a prescribed burn. A cleared area of 30 to 40 acres would be needed. Keeping these areas open and usable will enhance habitat for elk and provide opportunities for park visitors to view these animals. Before proceeding with either chemical application or burning, the impacts on silverspot butterfly habitat, rare plant species and natural communities will be investigated.

GRASSLANDS

Description

The largest headland grassland areas are found at the base and on the slopes of Nehkahnie Mountain.

Typical Species

Some animals found in the small grassy areas are Roosevelt elk, black-tailed deer, grouse, snakes, lizards, and small mammals. These grasslands may be a suitable habitat for the Oregon silverspot butterfly (Speyeria zerene hippolyta), a threatened species with very particular habitat requirements. The silverspot butterfly is dependent on a plant known as Viola adunca.
Management

Special consideration will be given to the needs of the silverspot butterfly when studying the possibility of conducting prescribed burns in the area. Foot trails will be maintained.

HEADLANDS AND OFFSHORE ROCK COMPLEXES

Description

Numerous small rock islands are located near shore, particularly off Cape Falcon, Neahkahnie Mountain and, to a lesser extent, the Clatsop County portion of the park. Castle Rock, Gull Rock and Falcon Rock are all important nesting islands for seabirds. The sea cliff portions of this habitat are located on the edges of Cape Falcon, Neahkahnie Mountain, and Arch Cape. These cliffs, which are quite steep in some areas, are composed of basalts.

Typical Species

This habitat is primarily used by seabirds for feeding, resting, breeding and nesting.

According to the US Fish and Wildlife survey of 1979, the following species were known to nest in this area (quantities in parentheses):

- Brandt's cormorant (276)
- pelagic cormorant (130)
- common murre (125)
- pigeon guillemot (133)
- western gull (54)
- black oystercatcher (6)

The black oystercatcher breeds in limited numbers along the Oregon coast. The fact that it nests here indicates that this intertidal habitat is undisturbed and in good condition. In 1979 two pair nested on the sea cliffs and one pair nested on a 20-foot high rock island.

Management

Present management will be maintained in these areas. The rocks and cliffs are essentially inaccessible. Interpretation of this resource is a possibility if funds become available.

WILDLIFE
SNAGS

Description

For cavity-nesting species, including 39 bird and 14 mammal species in Western Oregon, snags are only one component of their habitats, but they are vital to these species. A snag can be defined as a dead, dying, or broken-topped tree with more than a 10-inch diameter. Snags are used as roosts, hunting perches, and foraging sites.

Typical Species

- pileated woodpecker
- bald eagle
- owls
- flycatchers
- bats
- other small mammals
- hairy woodpecker
- osprey
- hawks
- brown creeper (a small bird)
- raccoons

There is one known active eagle nest on the north-west side of Cape Falcon.

Management

Snags will generally be left standing except when they create a hazard to human safety. No new activities will be allowed within a 660-foot radius of the eagle nest. Any existing activities may remain. The location of the eagle nest should be considered as confidential information.

ROCKY MARINE HABITAT

Description

This extensive rocky marine habitat is found at the base of Cape Falcon and Neahkanie Mountain. It includes both intertidal and subtidal zones. The Oregon Natural Heritage Data Base recognizes this area as an excellent example of an ecosystem that is very rare in its natural state. An ecosystem of this type has not yet been protected for future research needs. Access is difficult at this site and provides a degree of protection.
Typical Species

- purple sea urchin
- ribbon worm
- red urchin
- six-rayed star
- blood star
- common sea star
- large green anemone
- aggregating anemone
- California mussel
- purple shore crab
- porcelain crab
- kelp crab
- hermit crab
- nudibranchs
- gumboot chiton
- leather chiton
- keyhole limpet
- finger limpet
- black turban snail
- leafy hornmouth
- gooseneck barnacle
- acorn barnacle
- marine "pill bugs"

Management

Because of the inaccessibility of this habitat no protective management measures are required.

RARE AND ENDANGERED SPECIES

Bald Eagle (Haliaeetus leucocephalus)

Description

This magnificent bird measures 6 1/2 – 8 feet from wing tip to wing tip. The adult has a snow-white head, neck and tail. The body is brownish-black and the large, hooked bill is yellow. Except for the white wing linings and some white blotches, the immature can be mistaken for a golden eagle, which is dark all over. A soaring eagle seen from a distance has flat wings and flaps them occasionally, while the turkey vulture's wings form a flattened V-shape and it seldom flaps its wings.

Status and Range

The bald eagle is officially listed as threatened by the U.S. Fish and Wildlife Service. The breeding range formerly included most of North America, but eagles are now found mainly in Alaska, Canada, the Pacific Northwest, the Great Lakes states, Florida and Chesapeake Bay.
Habitat and Life History

The eagle feeds primarily on dead fish and sometimes on crippled waterfowl and small mammals. It hunts along the seashore, lakes and rivers, and uses tall snags and trees with exposed lateral limbs or dead tops for vantage points. The perching and roosting trees are vital to its habitat. The tallest snag or tree with a deformed or broken top and an unobstructed view of a body of water is chosen for nesting. The mean diameter of nesting trees is 70 inches. These trees usually occur in an uneven-aged, coniferous forest with old-growth components. Nests are typically 2-3 feet deep and 5 feet across. An eagle pair often alternates nests from year to year. In western Washington, the average nesting territory was found to have a 1.6 mile radius.

Threats to the Species

The most frequently recorded cause of eagle mortality is shooting. Other reasons for their decline are the use of toxic pesticides and herbicides, loss of habitat, and human disturbance. Generally adult eagles are more sensitive to disturbance during courtship, egg-laying and incubation, and less sensitive as the young develop.

Eagles in the Park

An occupied nest was discovered in 1982, but no eggs or young were found. The nest was inactive the next year, and one eaglet fledged successfully in 1984.

Management

The most important thing in maintaining eagle habitat is to eliminate human disturbance, especially during nesting.

If nesting occurs, human activities within a radius of 330 feet from the nest should be completely curtailed and activity within a radius of 660 feet should be severely reduced. Limited human activities such as solitary hiking, bird watching and fishing are permissible. If nesting occurs where human activity has been occurring, that activity may continue, but not be expanded. If eagles are observed nesting at the park, the Department of the Interior, Fish and Wildlife Services should be notified for further management guidance.
In order to encourage eagle nesting success, toxic chemicals should not be used in watersheds where eagles feed. Human activity should be reduced along the areas where eagles feed. Roost or perch trees along the shoreline and old growth trees near existing nests should be saved. The Endangered Species Act applies to any parks and any projects receiving federal funds.

OREGON SILVERSPOUT BUTTERFLY (Speyeria zere ne hippolyta)

Description

The Oregon silverspot is a medium-sized, orange and brown butterfly with black veins and spots on the top side of the wings. The underside of the wing has bright metallic silver spots and a yellow band on its edge.

Status and Range

The silverspot is officially listed as threatened on a worldwide basis. It has full protection under the Endangered Species Act in any park that receives federal funds or when any actions require federal approval. The butterfly only occurs within a few miles of the ocean in northern Oregon and southern Washington.

Habitat and Life History

Meadows with salt-spray fog and the western blue violet (Viola adunca) are required by the silverspot. Nearby coniferous trees and shrubs are needed to provide cover from the wind. The presence of grasses and a mixture of herbs further improve the habitat. The adults primarily use the forest and the larvae use the meadows.

Threats to the Species

The habitat for this butterfly is being reduced primarily by development along the coast including parking lots and lawns. The introduction of exotic plants is a minor threat.

Local Population

The Oregon silverspot has never been known in Oswald West, but all of the habitat requirements, including the presence of Viola adunca, are found on the lower, western slopes of Nehkahnie Mountain.

WILDLIFE
Management

The above mentioned habitat will remain undisturbed. This violet population might be used as a propagation source for reestablishing the plant in former silverspot sites such as Cape Meares State Park.
Oswald West State Park is, for the most part, rugged and heavily wooded. From the top of Neahkanie Mountain, at an elevation of 1,695 feet, spectacular vistas of the coast are available. Cape Falcon and the headland areas also provide elements of scenic value. Within the park are various meadows and woodlands. Two creeks in the park flow down to Short Sand Beach, a quarter-mile stretch of sandy beach in a secluded cove.

County Comprehensive Plan Description: Scenic overlay.

The headlands are designated scenic areas.
HISTORIC AND ARCHEOLOGIC FEATURES

OSWALD WEST

HISTORIC FEATURES

Oswald West State Park was named in 1958 in honor of Oswald West, Governor of Oregon from 1911 to 1915, who was instrumental in preserving Oregon's public beach heritage.

Within the park are a number of places of historic interest. Foremost among these is Neahkahnie Mountain where most of Oswald West State Park is located.

Neahkahnie Mountain

The name Neahkahnie is generally believed to be the Native American word meaning "the place of" (Ne) the god "Ekahni," their chief deity. The Tillamook believed that the god Ekahni, while sitting in the mountain, turned into stone and remains on the mountain. Although spellings have differed, many sources tell substantially the same story.

Cape Falcon

Cape Falcon was known in the past as False Tillamook Head due to its resemblance to this more prominent landmark to the north. The name Cape Falcon was given by Captain Bruno Heceta to a headland in this area in August, 1775. It is not known for certain if the present Cape Falcon was the one named by him, but that name was retained because of his explorations along the coast.

Smugglers Cove

This cove area at Short Sand Beach may have been used during prohibition to bring bootleg whiskey from Canada, but the cove is not large enough or suitable for ships any larger than small power boats or light craft.

Neahkahnie Treasure

From the time that the early pioneers arrived along the north coast of Oregon, there have been stories of treasure buried on Neahkahnie Mountain. Legends passed down from generation to generation of native Americans tell of sailors coming ashore, carrying a large box. Once ashore, they dug a deep pit and placed the box in it. Then they killed one of their number, placing his body on top of the box to discourage anyone from disturbing the contents, and departed.
Some versions of the story tell of only one ship being seen by the local people, while other stories tell of three ships in battle, described as "throwing smoke." Two of the ships sank and the remaining one came ashore for repairs. As the ship attempted to leave again for the ocean, it was broken up by incoming waves. In some stories, the crew was all drowned, while other stories tell of four men who survived and went north along the coast. Another legend tells of survivors who lived among the natives until trouble arose between the sailors and the local people. The sailors were soon all killed by the natives.

In addition to the legends told by the Native Americans, there has been found on the mountain what some people take to be additional proof of the existence of a treasure. Over the years, many large rocks with strange markings on them have been found. Many people think that these stones indicate the location of the treasure, and that if they can correctly interpret them, they will find the treasure. Consequently, many people have engaged in digging up portions of Neahkahnie Mountain. So far no one has had any success.

Recently another interpretation has been offered to explain the meaning of the markings on the rocks. The markings, which consist of letters, numbers, arrows, dots and other signs, are thought to be the evidence of the first scientific survey done in North America. The markings are measurements, bearings and angles. It is hypothesized that this is where Sir Francis Drake came ashore and established his Port of New Albion, a site which has been lost to history for hundreds of years. This Port of New Albion is where Necarney City is now located. If this hypothesis is correct, then this area is the first projected and measured English Colony in North America. It is known that Drake sailed at least part way up the north coast of the Pacific Northwest. A plaque at Cape Arago State Park marks the northernmost spot he is thought to have reached; perhaps he came further.

ARCHEOLOGIC FEATURES

There is one known archeologic site located at the mouth of Necarney Creek near the Short Sand Beach area. This site has been badly disturbed by construction of the campground and erosion has taken place on the seaward side. Further investigation should be undertaken if additional construction is planned.

PARK BACKGROUND

The first acquisition for this park came as a gift of 120.37 acres from E.S. and Mary Collins in 1931. Many other gifts and purchases have brought the total park acreage to 2,474.43.

HISTORIC AND ARCHEOLOGIC FEATURES
Zoning
RM - Recreation Management in both Tillamook and Clatsop Counties with Shoreland Overlay in both counties. Clatsop County's RM zone is similar, but not identical to Tillamook County's. See Appendix for excerpts from these plans.

Jurisdiction
Tillamook and Clatsop County

Tillamook County Comprehensive Plan
Needed for water-dependent and water related uses.
Coastal Headland - Cape Falcon
Exceptional aesthetic resource
Historic Site - Cape Falcon
Significant Wildlife Habitat - nesting seabirds

The developed portion of the park is located in Tillamook County; undeveloped portion is located in Clatsop County.

Clatsop County Comprehensive Plan
Coastal Headland - Arch Cape.
Recreation Importance - Most of park land.
Oswald West State Park consists of 2474.43 acres of which 281.43 acres are in Clatsop County and 2193.0 acres are in Tillamook County. The majority of this acreage is owned free and clear; a few parcels have been given or transferred to Parks with conditions. They are as follows:

<table>
<thead>
<tr>
<th>File No.</th>
<th>Size and Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>P173</td>
<td>120.37 acres - for park purposes only, free to public.</td>
</tr>
<tr>
<td>P181</td>
<td>45.85 acres - for park purposes, open to the public, free of charge. A monument or slab is to be erected and maintained on those premises to Miss Eunice K. Armstead.</td>
</tr>
<tr>
<td>P226</td>
<td>120.0 acres - for park purposes only.</td>
</tr>
<tr>
<td>P224A</td>
<td>97.30 acres - park purposes only.</td>
</tr>
</tbody>
</table>

**Easements and Agreements**

<table>
<thead>
<tr>
<th>File No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1130</td>
<td>(Agreement 41453) State has granted an easement to another party for joint use of a road for the sole purpose of forest management and removal of forest products from private land. The state has the right to use the roadway for any purpose and to grant to others a similar right. The road is to be gated and locked at the point of intersection with the Oregon Coast Highway right-of-way. Both parties are responsible for maintenance of the roadway.</td>
</tr>
<tr>
<td>#11904</td>
<td>Title for a 50' wide right-of-way was given to Tillamook County by the State as long as the land is used for public road purposes.</td>
</tr>
<tr>
<td>C&amp;A 1609</td>
<td>Easement granted to Oregon Board of Forestry to operate and maintain a private roadway on a 20' wide right-of-way. Highway Commission reserves right to use roadway for its own purposes.</td>
</tr>
<tr>
<td>C&amp;A 2490</td>
<td>Agreement with North Tillamook County T.V. Translators, Tillamook County and Oregon State Health Division for the following structures: T.V. Translators was granted the right to erect and maintain a concrete block building and mast for T.V. translator, buried cable and road use. Tillamook County was granted the right to erect 2 - 35' antenna poles at the station. Oregon State Health Division was granted the right to erect 2 antennas, 1-20' high and 1 dish.</td>
</tr>
</tbody>
</table>
EXISTING CONDITIONS

Location: 3 miles south of Manzanita off U.S. 101, Tillamook County.

Acreage: 878.42 Acres.

Description: Nehalem Bay State Park is on a long sand spit between the Nehalem River estuary and the Pacific Ocean. Most of this area has been stabilized over the years through plantings of European beachgrass, Scotch broom and shore pine, but a few open areas with native plants remain in the interior of the park.

This park has been developed as a destination park with a large campground, paved bike trails, a horse camp, facilities for hikers and bikers, and day-use areas.

Most of the sand spit is undeveloped, accessible only to people on foot or horseback. During the winter, the spit is used by herds of deer and elk and the deflation plain gets heavy use from waterfowl. An undisturbed sedge-bulrush salt marsh is at the northeast corner of the park property.

Day-Use Facilities: Picnic facilities (37 units), restrooms, paved parking, equestrian facilities, paved boat ramp, small meeting hall for group use, recreational airstrip.


Overnight Facilities: Campground with 292 improved campsites, showers, restrooms, laundry facilities, dump station; hiker/biker camps; horse camp.


Recreation Activities: Camping, picnicking, fishing, swimming, biking, boating, hiking, horseback riding.
PROTECTION  70.3 Acres  8%

Only a small portion of Nehalem Bay State Park is designated for Protection because most of its natural features have been altered from their natural condition. The areas in Protection include a sedge-bulrush salt marsh along the northeast boundary of the park and some unstabilized sand dunes which have a good variety of native plants.

MANAGEMENT  505.1 Acres  57.5%

Most of the park has been altered from its natural condition by stabilization of the sand dunes. European beachgrass, Scotch broom, and shore pine have been planted extensively throughout the park, crowding out the native plants and altering the character of the land.

There are two areas in the park which may need special management at certain times. One is the beach side of the spit which may have snowy plover nesting habitat. If snowy plovers are found to be nesting in this area, the area should be posted and access limited while the birds are nesting. See Wildlife Section for more information. Another area which may require similar treatment is on the estuary side of the spit. Harbor seals have recently re-established a haul-out area at the south end of the spit. This area may also need to be posted for limited access while the pups are young and vulnerable.

DEVELOPMENT  303.02 Acres  34.5%

There are large areas within the park which are suitable for development.

These areas have slopes of less than 10 percent and soils which are suitable for development. Generally the development lands are in the north part of the park, adjacent to existing developments.
DEVELOPMENT PLAN SUMMARY

DEVELOPMENT PLAN OBJECTIVES

Continue to provide family-oriented recreation opportunities.

Improve traffic circulation at the campground entrance.

Improve park visitor knowledge of services available in neighboring communities.

Rehabilitate and upgrade facilities as necessary.

Reduce conflicts between various user groups such as equestrians, pedestrians, and bicyclists while still providing for the needs of all.

Preserve the few areas designated for Protection from any adverse impacts.

RECREATION OPPORTUNITIES

This park is physically capable of supporting additional recreation development. Many areas within the park are flat, and have suitable soil conditions for additional development; they are also close to the desirable recreation amenities of the beach, the ocean and the Nehalem River.

The park presently is well used and is often filled to capacity on weekends in July and August. In 10 or 20 years, demand is expected to increase enough to justify construction of additional camping facilities.

With six miles of beach on the ocean and on the bay, Nehalem Bay can accommodate a large number of park visitors without being crowded. Proper design and placement of facilities will allow diverse recreation opportunities to occur with a minimum of conflict.

Since this park has been greatly altered from its natural state by the dune stabilization program, there are few natural areas requiring protection from regular park use.

Future development will include campground expansion near the existing campground in the area designated for Development. Additional trails for pedestrians, bicyclists and equestrians will be developed and minor improvements such as picnic shelters will continue to be made.
IMPACTS OF PROPOSED PARK DEVELOPMENT

There will be some impact from park campground expansion on the local communities in terms of additional traffic and need for services. It is difficult to determine the amount of impact, but since the expansion is to the campground area, the impact will probably not be heavy. Economic impact studies have shown that campers tend to spend less than day-use visitors on food and services since they tend to be more self-contained and self-sufficient. Since Nehalem Bay State Park is a destination park with many amenities and lots of beach, it is not as likely that campers will be leaving the park to look for other recreation opportunities.

The changes to the park circulation and entry will have a minor impact on some members of the local community who are accustomed to entering the park from the 10th Street entrance. It is expected that this will be a short-term effect, lasting until people are used to using the new entrance.

Expansion of the campground facilities will affect the amount of use for all the support facilities in the park; however, this expansion will not adversely impact those facilities. There is adequate open space to accommodate additional park visitors.

Expansion of the bike trail will provide an attraction for people from outside the park as well as to those staying at the park. Since there are bicycle rental shops in Manzanita, the City of Manzanita may want to review their traffic circulation plan to ensure that cyclists have safe travel routes to the park.

HANDICAP ACCESSIBILITY

The facilities at Nehalem Bay are handicapped accessible.
<table>
<thead>
<tr>
<th>Capitol Improvement Projects</th>
<th>Rehabilitation Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulation Improvements-</td>
<td>Registration Area Improvements</td>
</tr>
<tr>
<td>Park Entry and Exits</td>
<td>$50,000</td>
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<td>$5,000</td>
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<tr>
<td>Restroom/Shower Building Construction-Loop &quot;F&quot;</td>
<td>Primitive Camp Improvements</td>
</tr>
<tr>
<td>$30,000</td>
<td>on split $20,000</td>
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<tr>
<td>Improvements Near Boat Ramp</td>
<td></td>
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<tr>
<td>$50,000</td>
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<tr>
<td>New Campground Facilities</td>
<td></td>
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<tr>
<td>$425,000/each loop</td>
<td></td>
</tr>
<tr>
<td>Horse Camp Relocation</td>
<td></td>
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<tr>
<td>$60,000</td>
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<tr>
<td>Bicycle Trail Construction</td>
<td></td>
</tr>
<tr>
<td>$370,000</td>
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</tbody>
</table>
### Capitol Improvement Projects:

<table>
<thead>
<tr>
<th>CIRCULATION IMPROVEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Entry and Exits</td>
</tr>
</tbody>
</table>

**Construction Cost (1987):** $5,000

**Annual Maintenance Cost:**

**Existing Conditions:**

Presently there are two entrances to the park. Conflicts occur during peak use at the campground registration area because of traffic congestion.

**Proposal:**

Eliminate the park entrance from 10th Street as an entry, except for emergency vehicles. Continue to use it as an exit from the park into the community of Manzanita.

Install signs directing traffic to the new entrance.
RESTROOM/ SHOWER BUILDING CONSTRUCTION
Campground

Construction Cost (1987): $30,000
Annual Maintenance Cost: $11,000

Existing Conditions:

There is only one shower/restroom building to serve all the campers in D, E and F loops. Another restroom/shower building is needed in the near future in F loop.

Other buildings may be needed in loops C and D.

Proposal:

Construct a type 8 restroom/shower building in the center of loop F. This building will also serve campers using the relocated horse camp south of loop F.

Construction restroom/shower buildings as needed in loops C and D.
CAPITOL IMPROVEMENT PROJECTS

IMPROVEMENTS NEAR BOAT RAMP

Construction Cost (1987): $50,000

Annual Maintenance Cost: –

Existing Conditions:

The existing toilets at the boat ramp needs to be replaced. There is no picnic shelter in the area.

Proposal:

Construct a new picnic shelter in the area of the boat ramp. Include new restroom facilities in this structure to replace the existing vault toilets.

NEHALEM BAY
Capitol Improvement Projects

NEW CAMPGROUND FACILITIES
East of Loops D, E and F

Construction Cost (1987):
$425,000/each loop

Annual Maintenance Cost:
$55,000

Existing Conditions:

Present camping facilities are adequate for foreseeable future. However, as demand increases, additional camp loops will be needed.

Proposal:

Provide additional camp loops with shower/restroom buildings and hook-ups as needed in the area east of camp loops D, E & F.
Capital Improvement Projects

HORSE CAMP RELOCATION
Between Campground and Day-Use Area

Construction Cost (1987): $60,000
Annual Maintenance Cost: $6,000

Existing Conditions:

The horse camp is presently located at the northern end of the park, between the residential area of Manzanita and the camping areas within the park.

The space is inadequate and there are numerous instances of conflicts between the equestrians, local citizens and other park users.

Proposal:

Relocate the horse camp to the southern portion of the developed area of the park, between the campground and the day use area.

There is adequate room for a well-developed horse camp away from the residential areas and closer to areas more appropriate for horses.

Some bridle trails would have to be reworked to discourage equestrian use close to the campgrounds, but there are many areas within the park where horses could be allowed without conflicting with other uses.

The horse camp will be designed to utilize an old road bed. It will have pull-through parking/camping spaces, water, shelter and vault or chemical toilets.

An area adjacent to, but separate from, the new horse camp will be reserved for day-use by equestrians.
Capital Improvement Projects
BICYCLE TRAIL CONSTRUCTION
On Spit South of Day-Use Area

Construction Cost (1987): $370,000
Annual Maintenance Cost: $10,000

Existing Conditions:

A hiking/equestrian trail exists down the center of the sand spit at Nehalem. There are no other uses on the spit. A short bike trail exists near the campground.

There is plenty of room for additional trail development down the spit. An extension of the existing bike trail would provide improved recreation opportunities for bicyclists and add to the variety of areas available to them.

Proposal:

Construct a three and one-half mile, eight-foot wide paved loop bike trail from the day-use parking lot to the north jetty, returning on the old Coast Guard road.

Relocate the bridle trail away from the new bike trail as much as possible without incurring excessive cost.
Rehabilitation Projects

REGISTRATION AREA IMPROVEMENTS

Campground Registration Area and Adjacent Parking Lot

Construction Cost (1987): $50,000
Annual Maintenance Costs: $2,000

Existing Conditions:

The area around the registration booths has an unnecessarily large amount of asphalt. The parking lot adjacent to it also has a large area of asphalt which serves little purpose.

Proposal:

Eliminate the excess areas of asphalt, provide better traffic circulation and improve the visual appearance of those areas.

Install planters and additional areas of grass in place of some of the asphalt. Adequate parking will remain for the group use building located nearby.

Install an informational kiosk near the registration booths. The kiosk will have a display board listing the various goods and services available in the local communities of Manzanita, Nehalem and Wheeler and a pay phone. Parking will be provided and the kiosk will be lighted at night.
Rehabilitation Projects  PRIMITIVE CAMP IMPROVEMENTS

South End of Spit

Construction Cost (1987): $20,000
Annual Maintenance Cost: $2,500

Existing Conditions:

A primitive camp is located at the south end of the spit for the convenience of people using the Coast Trail. At present there is one pit toilet and a picnic table.

Proposal:

Provide better toilet facilities, install another picnic table or two, and provide specific areas for camp sites and/or cooking fires.
Duck Hunting

Some interest has been expressed by the Oregon Department of Fish & Wildlife in allowing duck hunting on the spit, especially in the area of the deflation plain.

Historically, there has been no hunting on the spit and there has been no pressure by the public to allow it.

Although hunting would be alternative recreational use of the spit, it would also be a potential conflict with the existing and proposed uses on the spit, and therefore will not be allowed.

Dredge Material Disposal Sites

As part of the Tillamook County Comprehensive Plan, the County prepared a plan which designated certain sites to receive materials dredged from Nehalem Bay. Five of these sites are designated to occur in Nehalem Bay State Park. There are three priority and two reserve sites.

As originally proposed, sites 25, 26 and 27 on the spit were acceptable to Parks; sites 23 and 24 within the northern portion of the park were not.

Since that plan was presented in 1979, Parks staff and Tillamook County planners have attempted to resolve those differences. In 1986, the Tillamook County Planning Commission approved a plan amendment designating the following DMD sites. (See map for site locations.)

Site 23 - PRIORITY site, 9.2 acres at a maximum depth of 9'

Site 24 - RESERVE site, 53 acres @ 6' deep

Site 25 - PRIORITY site, 26 acres @ 6' deep

Site 26 - PRIORITY site, 30 acres @ 6' deep

Site 27 - RESERVE site, 40 acres @ 5' deep

Site 28 - New RESERVE site, 26 acres @ 6' deep. Beach nourishment site, by pipeline over the foredune.

Use of all these sites is subject to the approval of the Oregon Department of Transportation, the requirements of Tillamook County Zoning, reasonable conditions of the State Parks and Recreation Division, and any other state or federal regulatory agencies having jurisdiction.
The following technical information is from the Draft Plan, prepared by Wilsey and Ham.

**Dredge Methods**

The method used to accomplish the dredging would probably be one of the followings:

- Bucket or clamshell dredges
- Pipeline dredging
- Hopper dredging

**Material Characteristics**

Tests conducted on the materials to be dredged in Nehalem Bay indicate that it is a medium sand. This material can be used as structural foundation fill material. It will compact easily and has good drainage characteristics. Wind erosion is a problem but not a severe one.

**General Design Criteria**

Generally in the case of sand and gravel materials, a low toe dike is sufficient to contain the dredged material. The toe dike is 2'-3' high. As the fill proceeds, the toe dike is raised, using the fill material.

An outfall structure is usually constructed to control and direct the return of the dredging effluent to the river channel.

**Designation**

All sites within the park are designated as priority or reserve sites.

Priority sites are the most important to future dredge disposal needs and are designated as "DMD-1" sites. All uses proposed within a DMD-1 designation are conditional uses in the SH-Shore Overlay Zone and are subject to Planning Commission review.

Reserve sites will be periodically reviewed. As priority sites become filled, reserve sites will be reevaluated as potential priority DMD sites.

**Site Use and Permit Review**

Prior to actual use of any of the proposed sites, the ports and Corps of Engineers must prepare specific design materials and determine how and when the sites will be utilized. It will then be necessary to apply for applicable Section 10, Section 404 and fill and removal permits at the state and federal levels. After the permits are approved, the sites will be available for use, subject to any special conditions.
Mitigation and Restoration Sites

The County has designated sites on the spit at Nehalem Bay as mitigation and restoration sites. This means that these sites can be manipulated to create additional wetland habitat, either fresh- or salt-water, to compensate for habitat lost in other areas. Parks will cooperate with the County in this effort if the proposed action is in the best interest of the Parks.

Other state agencies are often involved in these kinds of actions and it may be desirable to request the advice of the Data Base Natural Heritage Program and the Fish and Wildlife Department in these actions.

County Road Rights-of-Way

At the time the property for this park was being acquired, the area had been platted into numerous subdivisions of 50'x100' lots and streets. Parks was able to purchase all the lots, but the street rights-of-way belong to the County which has consistently refused to vacate them in our favor.

The possibility of potential conflict exists until these rights-of-way are in Parks' ownership. It is hoped that at some point that the County will vacate these street rights-of-way over to State Parks.
ALLUVIAL PLAIN

Nehalem Bay State Park is primarily on an alluvial plain. At the north end, the foredune merges into an older dune complex that is stabilized by a forest. The western boundary of the spit is the Pacific Ocean. The Nehalem River and estuary form the eastern boundary of the spit. There are tide flats on both sides of the sand spit.

BEACHES AND DUNES

A wide variety of dune types are found in Nehalem Bay State Park including the following:

- Beach areas, small amounts of dune complexes of open sand, conditionally stable open dunes, younger stabilized dunes, areas of active foredunes, older stabilized dunes, conditionally stable open dunes, wet interdunes and wet deflation plains.

In 1982, the Corps of Engineers completed reconstruction of the jetties at the mouth of the Nehalem River. It is expected that in the future this will cause sand to accrete both north and south of the jetty system. Littoral drift would be affected only in the immediate vicinity of the jetties.

The dunes on the sand spit have been stabilized. Planting begun in 1954 with European beachgrass, Scotch broom and shore pines were essentially completed in 1962. Those stabilization activities have greatly reduced the geologic activity on the spit.

GEOLOGIC HAZARDS

Erosion of the beaches and dunes is a continuing geologic process.

The area near the inner bay is subject to streambank erosion.
LAND FORMS & GEOLOGY

Slopes Over 10%
Geology - Alluvium & Dune Sand

NEHALEM BAY STATE PARK
SOILS

Soils at Nehalem Bay are either the sandy soils of the beach or the alluvial soils of tidal flats.

BEACH SOILS

Beach soils, which are useful for many kinds of recreation, are completely unsuited for any kind of development which requires construction on or alteration of ground surface. These soils are subject to daily tidal inundation.

DUNE LAND SOILS

Dune land soils consist of wind drifted sand in the form of dunes, ridges or hummocks. Some of the dunes are unvegetated and not stabilized while other areas have been stabilized primarily with European beach grass and shore pine. These lands are suitable for recreation activities which do not require built facilities.

STABLE SOILS

Other soils are those of the Westport series which are deep, excessively drained soils formed on stabilized dunes. Permeability of the soil is very rapid with little runoff. Erosion hazard is high if the vegetation is removed. If slopes are flat, these soils are suitable for septic tanks, buildings without basements, and roads. Generally, these soils are not suitable for camping or picnic areas since they are too sandy. They can be used for dispersed recreation which has less impact than camping or developed picnic areas.

ALLUVIAL MARSH SOILS

Soils found in the tidal marsh and tidal flats are formed from alluvium which was deposited along bays and rivers of the coast. These soils contain varying amounts of sand, silt, clay, gravel and peat. The lower elevation lands are subject to daily flooding and have no vegetation. Higher elevation areas are sparsely vegetated. These soils are not suitable for any kind of construction. They are used for recreation activities, such as clamming, crabbing and fishing. Tidal flooding prevents most other recreation activities.
SOILS

Soil Restriction Ratings for Recreation Development

Moderate
Severe

NEHALEM BAY
STATE PARK
WATER FEATURES

NEHELEM BAY

ESTUARINE CHANNEL

The estuary, classified as subtidal open water, is where salt and fresh water mix. The Nehalem estuary extends 6 miles upstream from the mouth of the river. As with rivers, the seasonal runoff affects the hydrology of the estuary. Along with the tidal influences present in the estuary, there are complex hydrologic patterns. The salinity of the estuary water varies greatly, at times approaching that of seawater when the tides are high and the freshwater flow is low. Water temperatures in the estuary vary from 400 to 650 F.

ESTUARINE SALT MARSH

The salt marsh is classed as a intertidal, narrow-leaved, emergent, persistent, regularly wet estuarine system. The areas south of the salt marsh are mostly intertidal, sandy beach/bar estuarine systems which are either regularly or irregularly affected by tides.

DEFLECTION PLAIN WETLAND

A small deflection plain wetland exists on the southern end of the sand spit.

SAND BEACHES

The ocean side of the spit has upper and lower sand beaches affected by varying degrees of tidal activity.
Nehalem River Estuary
Salt Marsh
Intertidal Sand Beaches
Upper - Irregularly Wet
Lower - Regularly Wet
Flood Area
Deflation Plain Wetland
High Ground Water
OVERVIEW

Most of the native plant communities at Nehalem have been altered from their original condition, primarily by planting European beachgrass, Scotch broom and shore pine. There are three small examples of naturally-occurring ecosystems within the park.

NATURAL PLANT COMMUNITIES

LYNGBYE'S SEDGE - AMERICAN BULRUSH SALT MARSH

Description

In the northeast corner of the park, adjacent to the Bay and well-removed from the developed portions of the park, is a small, high-quality Lyngbye sedge-American bulrush salt marsh. Although it is a small salt marsh, it has not been manipulated and is in excellent condition.

Management

The salt marsh will be maintained in its present condition and monitored for changes.

DUNEGRASS - BLUEGRASS UNSTABILIZED DUNES

Description

There are small areas of dunegrass-bluegrass dominated unstabilized dunes north and east of the airstrip. These dunes have little vegetative cover and are prone to movement. Since there is little or no European beachgrass here, a wide variety of native sand-binding plants is present. Among these are red fescue, kinnikinnik, knotweed, seaside daisy, beach strawberry, and sickle-leaved rush. This diversity and dominance by native species is very rare now on Oregon's dunes. This is a small but excellent example of a plant community that is endangered worldwide.

Management

The major threat to the community is a large number of shore pine seedlings that were recently planted on two-thirds of this area. The seedlings will be removed and the area returned to its original condition.
HOOKER WILLOW DEFLATION PLAIN WETLAND

Description

Although the sand spit is predominantly covered with introduced species of Scotch broom, shore pine and European beachgrass, there is a small deflation plain wetland near the south end of the spit. The major overstory species is Hooker's willow. A wide variety of native sedges, rushes and grasses are in the understory. See Appendix for more details. Deflation plain wetlands such as this are fairly common along the coast.

Management

The area will be managed for wildlife habitat, essentially by maintaining its present condition.

ALTERED VEGETATION COVER TYPES

SPRUCE - SHORE PINE FOREST

Description

In the northern part of the park on old stabilized dunes, this cover type occurs as remnants of an older forest. It is the least disturbed of the altered vegetation types in this park.

In the forest bordering the Nehalem River Estuary the trees are older and the understory more diverse. Important plants in the understory are sword fern and rhododendron. Western red cedar is co-dominant with Sitka spruce in wetter localities. The forest along the estuary grows on a moderately steep east-facing slope.

The spruce-shore pine forest in the northwest portion of the park is younger, more disturbed and less diverse. The terrain is quite flat with occasional wet areas. Shore pine is a more important element in this area.

Management

The more mature trees in this type are more subject to blowdown. Downed trees will be left in place unless their quantities or presence constitutes a fire or safety hazard. Blowdown should not be allowed to accumulate near frequently used areas such as the road. Salvage activity will be limited, especially in wet areas.

VEGETATION
YOUNG SHORE PINE PLANTATION

Description

This type covers more acreage than any other in the park. Many areas show the effects of previous uses. Distinct rows of planted shore pines can be seen in many areas. A great deal of Scotch broom has also been planted, especially on the sand spit. These plantings, along with European beachgrass, have succeeded in stabilizing previously active dunes. A few exotic pines were planted along the road on the spit.

Management

European beachgrass, Scotch broom and, in most cases, shore pine will no longer be planted in the park. A program to eliminate the Scotch broom will be implemented as staff and funds are available.

Because of the high shore pine density, a number of diseases afflict the needles and stems. The planting of other woody species such as wax-myrtle and black twin-berry is encouraged here and in the campground.

BEACHGRASS DUNE

Description

This cover type is well represented in the park especially on the sand spit and the oceanfront. There is a small occurrence in a disturbed area northwest of the registration booth. The oceanfront unit is covered almost exclusively by European beachgrass with less than 5% of its native counterpart, American dunegrass. The topography is characterized by small sand hummocks and a foredune on the north end.

The central and eastern parts of this cover type have minor amounts of shore pine and Scotch broom. Sedges and rushes indicate wetter areas.

Management

The long-term management objective is to encourage more natural plant species with some bare sand between plants. Not planting additional trees and shrubs is the first step in this process. In some cases, removing non-native species may be desirable.

VEGETATION
LAWNS AND MAINTAINED VEGETATION

Description

The largest units are the airport and the campground. The airport grounds are maintained by the Oregon Department of Transportation. Herbs and grasses comprise the vegetation.

There are large lawns in the campground. Minimal shore pine screens separate the campsites.

Other small lawn areas are found at the two parking lots north and south of the campground.

Management

Native plants such as wax-myrtle, Hooker willow, and black twin-berry planted between sites in the campground, will increase diversity. Few shore pines need to be planted. In special cases where there is a need to stabilize sand, American dunegrass (Elymus mollis), seashore bluegrass (Poa macrantha) or red fescue (Festuca rubra) will be used instead of European beachgrass (Ammophila arenaria).

UNVEGETATED AREAS

Description

Bare sand occurs along the oceanfront, and mudflats border the estuary.

RARE AND ENDANGERED SPECIES

There are no known rare or endangered species in Nehalem Bay State Park.

The natural unstabilized dune community near the airport will be considered as an area for reestablishing the endangered plant, pink sandverbena (Abronia umbellata ssp. breviflora) in the wild.
Vegetated Areas
A Bare sand and/or mud

VEGETATION

NEHALEM BAY
STATE PARK
Natural Plant Communities
1A Sedge-bulrush saltmarsh
1B Dunegrass-bluegrass unstabilized dune
2A Hooker willow deflation plain

Altered Vegetation Cover Types
3A Spruce-shore pine forest
3B Young shore pine plantation
3C Beachgrass dune
3D Lawns & maintained vegetation
HABITATS

NEHALEM RIVER ESTUARY: THE CHANNEL

Description

The channel is the portion of the estuary which contains moving water. This estuary is about average-sized compared to other Oregon estuaries.

Typical Species

<table>
<thead>
<tr>
<th>Typical Species</th>
<th>Typical Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>coho salmon</td>
<td>chinook salmon</td>
</tr>
<tr>
<td>winter steelhead</td>
<td>starry flounder</td>
</tr>
<tr>
<td>sea-run cutthroat</td>
<td>dungeness crab</td>
</tr>
<tr>
<td>shiner perch</td>
<td>staghorn sculpin</td>
</tr>
</tbody>
</table>

There are experimental commercial plantings of the Pacific oyster between the upper and lower areas of the bay.

Management

This area is not owned by State Parks, but the boat ramp in the park provides access. The Oregon Department of Fish and Wildlife regulates the harvest of these species.

NEHALEM RIVER ESTUARY: THE TIDEFLATS

Description

The tideflat area is that part of the estuary that is covered and uncovered daily by the rise and fall of the tide. The mud and water are very rich with phytoplankton and zooplankton (microscopic organisms carried by the tide).

Typical Species

<table>
<thead>
<tr>
<th>Typical Species</th>
<th>Typical Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Estuary</td>
<td>Lower Estuary</td>
</tr>
<tr>
<td>soft-shelled clam</td>
<td>gaper clam</td>
</tr>
<tr>
<td>mud shrimp</td>
<td>common little-neck clam</td>
</tr>
<tr>
<td></td>
<td>ghost shrimp</td>
</tr>
</tbody>
</table>

A moderate number of harbor seals have recently reestablished use of a sandy tideflat in the lower estuary. They use the area for a haul-out and probably for breeding.
Management

Park visitors should not walk near the seal pups and mothers during April and May. Since the area is easily approached from the spit, it may be necessary to post the area with explanatory signs or consider closing the area seasonally. The present low level of use is beneficial to the seals; little increase in use is anticipated.

THE SALT MARSH

Description

This high quality salt marsh is located in the upper estuary, on the east side of the park, isolated from the major park development and activities. The presence of the sedge-bulrush community indicates a freshwater source that largely dilutes the salt water. This marsh is inundated by most high tides.

Typical Species

Numerous species of shorebirds, waterfowl, and perching birds use this habitat, especially during spring and fall migrations.

<table>
<thead>
<tr>
<th>Birds</th>
<th>Mammals</th>
</tr>
</thead>
<tbody>
<tr>
<td>mallard</td>
<td>striped skunk</td>
</tr>
<tr>
<td>pintail</td>
<td>deer mouse</td>
</tr>
<tr>
<td>merganser</td>
<td>common garter snake</td>
</tr>
<tr>
<td>Canada goose</td>
<td>mink</td>
</tr>
<tr>
<td>snow goose</td>
<td>raccoon</td>
</tr>
<tr>
<td>white-fronted goose</td>
<td>vagrant shrew</td>
</tr>
<tr>
<td>long-billed marsh wren</td>
<td>red-legged frog</td>
</tr>
<tr>
<td>widgeon</td>
<td></td>
</tr>
</tbody>
</table>

Management

This habitat will be managed for ecological and interpretive values. No development or recreation activities will be allowed in this area.

DRY SANDY BEACH

Description

The park has 3 1/4 miles of ocean-fronting sandy beach. The foredune to the east is well stabilized by European beachgrass. The beach is closed to vehicles.

WILDLIFE
Typical Species

The animals here are considerably less abundant and diverse than in the estuarine and deflation plain habitats.

- crow
- deer mice
- California ground squirrel

On rare occasions snowy plovers have been observed on this beach during the winter and the breeding season.

Management

See Rare and Endangered Species information at end of this section.

INTERTIDAL AND SUBTIDAL SANDY BEACH

Description

The intertidal zone lies between mean high water and mean low water. The subtidal zone is adjacent to and deeper than the intertidal zone.

Typical Species

- razor clams
- western sandpipers
- western gulls
- sanderlings
- California gulls
- mew gulls

Management

No special management is needed.

DEFlation PLain WETLAND

Description

Small ponds and seasonal wetlands are located on the south end of the park behind the secondary dunes on the bay side of the spit. This 35-acre habitat is dominated by native sedges, rushes and grasses with partial coverage by Hooker willow overstory. Deflation plain wetlands are fairly common in the state. This wetland is important because of unusually high use by shorebirds and waterfowl for resting and feeding. The wetlands are also important because they provide winter cover for the park's elk herd.

WILDLIFE
Typical Species

**Herptiles**
- Pacific tree frog
- red-legged frog
- bullfrog
- common garter snake
- northwestern garter snake

**Mammals**
- vagrant shrew
- mink
- striped skunk
- spotted skunk
- bobcat
- deer mouse
- Townsend's vole
- black-tailed deer
- Roosevelt elk

**Birds**
- common loon
- great blue heron
- mallard
- ring-neck duck
- bufflehead
- coot
- least sandpiper
- northern pygmy-owl
- red-winged blackbird
- western horned grebe
- whistling swan
- northern pintail
- canvasback
- ruddy duck
- killdeer
- snipe
- long-billed marsh wren

Management

No hunting of waterfowl will take place in this park. No other changes or additional activities are proposed for the wetland.

**PLANTATION: SHORE PINE/SCOTCH BROOM/BEACHGRASS**

**Description**

The 335-acre plantation habitat includes two plant communities, the Beachgrass Dune and Young Shore Pine Plantation which consist primarily of three planted species. Because of the lack of variety of plants, the wildlife diversity in the plantation habitat is low, about half that of the deflation plain wetland. The productivity (that is, the combined weight of plant and animal material produced each year) of the plantation is much less than that of the salt marsh to the northeast.

A number of recreational facilities and activities occur in this habitat.
In 1986, thirty elk used the park as their wintering grounds. In the summer they move up to the Neahkahnie Mountain. In the park, the elk primarily use the spits. They also use the forested area east of the campground.

**Typical Species**

<table>
<thead>
<tr>
<th>Herptiles</th>
<th>Birds</th>
</tr>
</thead>
<tbody>
<tr>
<td>northern alligator lizard</td>
<td>California quail</td>
</tr>
<tr>
<td>Mammals</td>
<td>red-shafted flicker</td>
</tr>
<tr>
<td>Pacific mole</td>
<td>gray jay</td>
</tr>
<tr>
<td>mink</td>
<td>chestnut-backed chickadee</td>
</tr>
<tr>
<td>Roosevelt elk</td>
<td>starling</td>
</tr>
<tr>
<td>black-tailed deer</td>
<td>purple finch</td>
</tr>
<tr>
<td>California ground squirrel</td>
<td>American goldfinch</td>
</tr>
<tr>
<td>deer mouse</td>
<td>sparrows</td>
</tr>
<tr>
<td>brush rabbit</td>
<td>Oregon junco</td>
</tr>
<tr>
<td></td>
<td>turkey vulture</td>
</tr>
<tr>
<td></td>
<td>brown-headed cowbird</td>
</tr>
<tr>
<td></td>
<td>myrtle warbler</td>
</tr>
</tbody>
</table>

**Management**

Presently, no hunting is allowed in the park. This policy is not expected to change. If the elk herd increases beyond the carrying capacity, Parks will consult with ODF&W to find a solution.

**RARE AND ENDANGERED SPECIES**

**WESTERN SNOWY PLOVER**

**Description**

This plump, sparrow-sized member of the sandpiper group has distinct gray, white and black markings. (See illustration).

**Status and Range**

The snowy plover is a federal candidate for listing under the Endangered Species Act as a threatened species. The Oregon Department of Fish and Wildlife listed the species as threatened in 1984, although larger numbers can be found in California along the beach and inland.

ODF&W studies reveal a population decline of 49% over a seven year period. If this rate continues, the species could be extinct within ten years. (Charlie Bruce, ODF&W, 1985. Personal communication).
Habitat and Life History

Nesting sites are shallow depressions on flat, open sand with an average of 26% driftwood cover and less than 1% live vegetation cover. The habitat must consist of fine, light-colored sand that is basically dry throughout the year. Plovers that winter on the Oregon coast require the same habitat. The nesting season extends from March 15 to September 15. Sometimes several clutches are produced during the breeding season.

Threats to the Species

The western snowy plover has experienced a fairly recent and drastic decline in its normal habitat on the Oregon coast. The large-scale introduction of European beachgrass as a means of erosion control has meant the reduction in area of the dry, open, sandy beaches which were prevalent on the coast until the 1930's. The declining population of snowy plovers is an indication of the current rarity of the open dune habitat. Endangered and threatened plant species such as pink sandverbena (Abronia umbellata) and silvery phacelia (Phacelia argentea) are also dependent on unstable dunes.

Another major threat to snowy plover nesting success is human presence. There is evidence that as intensity of recreational use of beaches increases, snowy plover abundance decreases (USFWS, 1984). Plovers are more likely to leave their nests when recreationists are accompanied by dogs. Vehicular use on beaches was shown to have a negative effect on nesting.

In a study at Point Reyes, California, incubating plovers left their nests 78% of the time when human activities occurred within 155 feet. Even at longer distances they are likely to leave the nests (USFWS, 1985). When the plover is frightened from its nest the eggs can cool rapidly and result in nesting failure. The interval of vulnerability between nest construction and fledging of the young is approximately 8 to 9 weeks. Chicks are highly vulnerable to disturbance between 10 and 17 days after hatching when their food intake and growth rate increase rapidly. An increase in numbers of predators (e.g., crows and gulls) is another factor in the decline of snowy plovers.
Local Population

The snowy plover habitat on the Nehalem sand spit is compromised by dense plantings of European beachgrass, but this remote spit still has potentially excellent habitat. In eight years of counts during the breeding season by ODF&W, one bird was seen in 1984, and in three winter counts, two plovers were seen in 1983.

Management

The following techniques are recommended for snowy plover management.

1. All personnel will be trained to identify snowy plovers and their nesting habitat.

2. Signs will be posted at two points on the spit announcing the dates and location of voluntary closure to hikers and equestrians. See draft of a sign at end of this section.

3. In general, introduced sand-binding plants such as European beach grass, will not be planted.

4. Parks will cooperate with ODF&W and other resource agencies in monitoring snowy plovers.
Nehalem Bay State Park has many different scenic qualities. The broad sandy spit provides an opportunity to experience the dynamic boundary of ocean and land, while the bay on the opposite side of the spit is more serene. The estuary and tide flats offer many opportunities for wildlife viewing. A portion of the park is wooded, but most of it consists of open sandy dunes and beaches.

County Comprehensive Plan Designation: Scenic overlay.

The sand spit is a designated scenic area.
HISTORIC AND ARCHEOLOGIC FEATURES

HISTORIC FEATURES

The name, Nehalem, is the name given to the Native Americans of the immediate area as well as to the area and the river which flows there. The word "Nehalem" means "place where people live." The prefix "Ne" means place or locality. Many places on the coast have this prefix as part of their place name.

The Beeswax Ship

A long standing story related by local natives and early pioneers tells of the "Beeswax Ship" at the Nehalem spit.

According to the legend passed from generation to generation, many years ago a strange craft was driven to shore and wrecked on the Nehalem spit. Although the ship broke up on the beach, the crew survived. For a time, they lived among the Native Americans, but relations between them became strained when the white men refused to honor the marital relations of the natives. When this situation became unbearable, the local people killed all the sailors.

While the fate of the sailors is uncertain, it is known that large quantities of beeswax which were part of the cargo washed ashore. It is fairly certain that this ship was one of the Manila Galleons which annually sailed from Manila in the Philippines to Acapulco, Mexico. In 1705, one of the galleons, the San Francisco Xavier, never reached its destination in Mexico. This date coincides well with the time given by the stories and is additionally verified by testing done on samples of the beeswax. Carbon 14 tests done in 1961 indicate that the wax dates from 1680 A.D. (plus or minus 110 years). Other analysis of the wax samples show that it is indeed beeswax from the Orient. It is known that the cargo put on board the San Francisco Xavier included 500 cakes of beeswax. Large pieces of beeswax and quantities of candles were found for many years by natives and settlers alike. Many of the large pieces of wax bore unusual markings which are believed to be marks of trade.

The first historical reference to the beeswax is found in the journal of Alexander Henry, a representative of the Northwest Company in Astoria. In 1813 Henry journeyed south to Nehalem. There he met a Clatsop chief and a young man with dark red hair who was said to be an offspring of one of the crew members from the ship which wrecked near the Nehalem River. He notes that "great quantities of beeswax continue to be dug from the sand and that the Indians use the wax for trade with the settlers." A later notation in his journal states that "the Indians bring lumps of beeswax from the sand when the Spanish ship was cast away and the crew all murdered by the Indians."
The beeswax has been found primarily in or near the spit at Nehalem, although fragments have been found up the Nehalem River and scattered along the coast. This drifting was due to the action of wind and waves along the coast.

The early settlers at Nehalem recall seeing the timbers of the wrecked ship protruding from the sand on the spit south of Manzanita. The wood was teak, very hard and difficult to cut. Some settlers removed pieces of wood and one settler made a small table of boards from the wreck. This table was given to the Columbia River Maritime Museum in Astoria. The remains of the ship have since been lost and buried in the sands of the spit.

In 1963, a boys crew working on the Nehalem spit uncovered a large piece of the beeswax measuring 15" x 18" and marked with a diamond and the letter N. This piece is on display at the Tillamook County Pioneer Museum in Tillamook.

**Maritime Artifacts**

In addition to the wax and teak, a few other maritime artifacts have been recovered from the area. A solid silver condiment jar, dated ca. 1700 by the Smithsonian Institution, a few 16th century Spanish coins and an anchor have been found.

**ARCHEOLOGIC FEATURES**

In an area known as Cronin Point located on the east side of the park adjacent to the bay, are two known archeological sites.

One area located near the edge of the water is subject to erosion. Little can be done to protect it from further destruction. This site is not thought to be worth a major excavation effort. Radiocarbon dating of items found at this site indicate the site was occupied from 1560 A.D. until about 1855.

A second site was found nearby, but recent attempts to relocate it have been unsuccessful. A survey in 1951 collected stone flakes, a pestle and a large chopper. At that time, the condition of the site was noted as poor. Some evidence of structures was found indicating that a village may have been located there.

Reference is made to a village in that area from one of the early pioneers, Warren Vaughn, who came to the area in 1852, wrote "we came upon an old Indian village on the north bank of the Nehalem River, opposite what is now termed Fisher's Point. This village was entirely deserted. The Indians at this time of year had journeyed up the Nehalem River to fish and dry salmon for their winter's use."
PARK BACKGROUND

The first land for this park was a gift of 497.63 acres from Tillamook County in 1938. The county has since given another 48.06 acres. Purchases of a number of other parcels have brought the park acreage to 878.42.

HISTORIC AND ARCHEOLOGIC FEATURES
Zoning

RM - Recreation Management with Shoreland Overlay.

Jurisdiction

Tillamook County

Tillamook County Comprehensive Plan

Needed for water-dependent and water related uses - boat ramp.
Exceptional aesthetic resource - South end of spit.
Historic Site - Beeswax shipwreck.
Significant Wildlife Habitat - Snowy Plover habitat. (Note: This county designation has not been verified.)
Dredge Material Disposal Sites - five sites have been designated to receive dredged materials. (See Park Management for further information on DMD Sites.)
There are a number of items in the Manzanita Comprehensive Plan which affect or address issues of interest at Nehalem Bay State Park. They are listed below.

Urban Service Area Policies  p. 16

#9. Cooperative efforts should be undertaken by the City, the County and the State Parks Branch to stabilize the large open sand area in the southeast area of the Urban Service Area, in the vicinity of the County dump. This activity should be undertaken to protect adjacent properties and the county roads from inundation by drifting sand. The Tillamook office of the U.S. Soil Conservation Service should be consulted for technical information and direction in this effort.

Parks and Open Space Policies  p. 27

#22. The city should cooperate with the State Parks Division and Tillamook County to protect the integrity of the beach. Vehicles should only be allowed on the beach for special purposes by permit, and shoreline protective structures shall be in conformance with the criteria of the State Highway Division. The City recognizes the value of the Oregon Coast Trail as a recreation resource for the state.

Transportation Policies  p. 29

#7. The city and state shall cooperate to retain the airport at Nehalem Bay State Park. It is the position of the city that the airport should be surfaced, that "T-hangars" should be installed, and that a caretaker should be stationed at the airport. It is the goal of the city that the facility be improved for existing traffic rather than expanded.

Economy Policies  p. 31

#4. The city should communicate to the State Parks Division the need to have an information board at the Nehalem Bay State Park. Such a board could inform tourists and campers of the services and goods available in Manzanita (as well as other surrounding communities).

Manzanita Public Facilities Plan.  Sec. 1, p. 39

Nehalem Bay State Park
The number of overnight and day visitors in the State Park contributes to the water system demand of Manzanita. There are 292 camping spaces for vehicles in the park. Assuming 3 persons per camper, this would equal a population of approximately 876. Day visitors would require less water, but there are about 1000 persons per day estimated to be using the park during peak times. Assuming day visitors use one-fourth the water of an overnight camper, the park could equal a city of 225-250 persons during peak summer usage periods.

The Manzanita water service area includes the city limits, the State Park at Nehalem Bay, Necarney City, and some residential land east of town. There are approximately 521 connections within the total service area, of which 470 are in the city limits, and 51 are outside.
Nehalem Bay State Park consists of 878.42 acres of land in Tillamook County. Prior to the existence of the park, most of the Nehalem spit was plotted for subdivisions. Parks purchased all the subdivision lots but has been unable to get the Tillamook County Board of Commissioners to vacate the dedicated streets on the spit. Parks is still pursuing this vacation in its favor.

**Easements and Agreements**

**Permit #12276** Agreement with Pacific Northwest Bell allowing a buried telephone cable to run the length of the park, down the spit to an existing cable submerged under the bay.

There are other agreements with Pacific Northwest Bell for telephone service to park.

**C&A 4716** Agreement with North Tillamook County Sanitary Authority to provide sewage disposal services. The Sanitary Authority maintains the sanitary lines and lift station on park property.

**Permit No. 1934** Agreement with the Aeronautics Division of the Department of Transportation for a lease on land to be used for a recreational flight strip for use by the general public. Aeronautics is responsible for fencing and maintaining the fencing around the premises. Aeronautics is responsible for the construction and maintenance of the approach road. This agreement has been renewed until 1993.
PROPERTY OWNERSHIP, LEASES & EASEMENTS

Restrictions
See Text For Explanation

NEHALEM BAY STATE PARK
EXISTING CONDITIONS

Location: 10 miles northwest of Tillamook, on Three Capes Scenic Loop Road, off U.S. 101, Tillamook County.

Acreage: 232.84 Acres (94.34 acres of State Park, adjacent to 138.5 acres of Cape Meares National Wildlife Refuge managed under a joint use agreement with the U.S. Fish & Wildlife Service.)

Description: Cape Meares is a small coastal park situated on a rugged, wooded headland. It is primarily a day-use park, although a small primitive camp is provided for the convenience of hikers and bicyclists.

The park is the site of an inactive lighthouse which now houses an interpretive display and provides a vantage point for observing the off-shore Three Arch Rock National Wildlife Refuge located nearby.

The park is adjacent to the Cape Meares National Wildlife Refuge, administered jointly by the U.S. Fish & Wildlife Service and the State Parks and Recreation Division.

Most of the park consists of Sitka spruce and western hemlock forest, much of it old-growth timber.

Day-Use Facilities: Picnic facilities (4 units), restrooms, paved parking, historic lighthouse and displays, trails.


Overnight Facilities: Hiker/biker camp.

Average Annual Overnight Attendance 1980-1985: No figures available.
Recreation Activities: Nature study, hiking, visiting lighthouse, viewing ocean, picnicking.

The primary attraction of this park is the panoramic view of the ocean afforded from the headland. Relatively little time is spent here although hikers and bikers use the primitive campground and some people use the picnic facilities.
LAND USE PLAN

CAPE MEARES

232.84 Acres (94.34 Acres State Park, 138.5 Acres USF&WS)

PROTECTION 202.64 Acres 87%

All of the land within the joint use agreement with the U.S. Fish & Wildlife Service is in the National Wildlife Refuge and is protected by federal law. This land is also designated as Protection on the Land Use Plan as is most of the land owned by State Parks. Included in the Protection class are four significant ecosystems which have not been altered from their natural condition. Two are coastal forest plant communities and two are subtidal marine ecosystems. The headlands and the nearby offshore islands provide excellent habitat for many seabirds.

MANAGEMENT 19.3 Acres 8.3%

Some state park lands have been altered from their natural condition or require special management to maintain their present condition. The areas adjacent to the park road and the primitive campground are in this class.

DEVELOPMENT 10.9 Acres 4.7%

A very small portion of state park land is suitable for development, and for the most part, it already has been developed. There is some land close to the existing development where some expansion of recreation facilities could occur.
DEVELOPMENT PLAN SUMMARY

CAPE MEARES

DEVELOPMENT PLAN OBJECTIVES

Maintain the natural conditions found in the park.

Maintain and improve the existing recreation facilities.

RECREATION OPPORTUNITIES

Cape Meares is a park with physical features similar to those found at Oswald West State Park. It is a rugged headland with old growth timber and few recreation facilities.

Its topography and the excellent condition of the forests preclude additional recreation development except for those minor additions which will have little or no impact on the natural resources.

IMPACTS OF PROPOSED PARK DEVELOPMENT

Implementation of the proposed improvements to the park will have no impact on either the park resources or on any adjacent landowner.

HANDICAP ACCESSIBILITY

The parking lot and restroom building are handicap accessible. The stone drinking fountain does not meet accessibility requirements.
<table>
<thead>
<tr>
<th>Capitol Improvement Projects</th>
<th>Rehabilitation Projects</th>
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<tbody>
<tr>
<td>Picnic Area Construction at Old Quarry</td>
<td>Hiker/Biker Camp Improvements</td>
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<td>$15,000</td>
<td>$10,000</td>
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Capital Improvement Projects

PICNIC AREA CONSTRUCTION

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<tr>
<th>Capital Improvement Projects</th>
<th>PICNIC AREA CONSTRUCTION</th>
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<tr>
<td>Inactive Quarry Area</td>
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Construction Cost (1987):

$15,000

Annual Maintenance Costs:

$2,000

Existing Conditions:

An inactive quarry exists south of the existing parking lot. It is flat, faces south, provides some views of the ocean, and is reasonably close to the existing parking lot and restrooms.

Proposal:

If the need arises, this area would provide a good site for additional picnic facilities. Some clearing of existing shrubs would be needed to provide better views of the ocean.

CAPE MEARES
Rehabilitation Projects: HIKER/BIKER CAMP IMPROVEMENTS

Construction Cost (1987): $10,000
Annual Maintenance Cost: $1,500

Existing Conditions:

A small four-site hiker/biker camp exists in the woods near the parking lot. There is enough use to justify expanding it to six or eight sites.

Proposal:

Construct two to four additional sites at the existing hiker/biker camp.
U.S. Fish & Wildlife Service Joint Use Agreement

Since 1938, a portion of Cape Meares State Park has been operated under a special use permit from the Bureau of Biological Survey, now the U.S. Fish & Wildlife Service (USFWS).

This area, now called the Cape Meares National Wildlife Refuge, has always been owned and operated primarily as a migratory bird refuge, but it has been also used as a state park with the stipulation that no actions occur to interfere with its primary purpose.

Over the years, this special use permit has become outdated and obsolete. In 1986, Parks and the USFWS signed a revised Memorandum of Agreement continuing this joint use. A copy of this agreement is in the notebook Appendix.
LAND FORMS AND GEOLOGY

HEADLANDS

This park consists primarily of a coastal headland of about 150 acres. The headland is made of basalt which correlates with the Columbia River basalt formation. It is dense hard rock that has been eroded by wave action into promontories and cliffs rising to heights of 300' above the ocean. The basalt is overlain by sedimentary rock of the Astoria formation on portions of the headland.

Slopes at Cape Meares range from 5% - 10% in and around the developed area, and to 20% to 30% and greater along the coast in the north section of the park and around the stream drainages.

A few minor drainages are located in the southern section of the park.

Cape Meares is presently (1985) being evaluated for National Natural Landmark status.

GEOLOGIC HAZARDS

There is a major landslide located on the north side of the cape. It is more than 3,000 feet long and an average of 1,000 feet wide.

The headland of the cape is being eroded by debris and rockfall. Overlying the basalt headland is an unconsolidated sand layer which exhibits creep in several places.
LAND FORMS & GEOLOGY
Slopes Over 10%
Geology - Miocene Volcanics
Hazards -
Active Landslide

CAPE MEARES
STATE PARK
Soils at Cape Meares are of three types: Hembre, Klickitat and Neskowin, with various subclasses depending on the percent of slope. These soils are all well drained and overlay basalt or igneous rock.

Generally speaking, there are moderate to severe development restrictions on all of these soil types. As the percent of slope increases, the severity of restriction increases. On the flatter slopes, i.e., less than 30 percent, runoff is medium and erosion hazard is moderate. On slopes over 30 percent, runoff is rapid and the erosion hazard is high.

Depending on the slope, these soils are rated from moderately to severely restricted for such developments as septic tank drainfields, small buildings and roads.

Restrictions for recreation developments range from slight to severe depending primarily on the slope of the land.
SOILS

Soil Restriction Ratings for Recreation Development

Moderate

Severe

CAPE MEARES
STATE PARK

OREGON STATE PARKS

T15S R11W SEC 34
T16S R11W SEC 32,33
Fillmore County
WATER FEATURES

ROCKY BEACHES

Cape Meares is primarily a rocky headland with a few minor drainages and very few beach areas. The small amount of beach present is classified as rocky shore, intertidal marine, a bedrock area subject to regular tidal activity.
WATER FEATURES
Rocky Beach - Intertidal, Regularly Wet, Bedrock

Streams

CAPE MEARES STATE PARK

1984 OREGON STATE PARKS
NATIVE PLANT COMMUNITIES

SITKA SPRUCE/SALAL FOREST (1A)

Description

This community consists almost entirely of Sitka spruce trees with salal understory. These plants are able to withstand the wind and salt spray which are common in this environment. The community occupies about 60 acres adjacent to the ocean. Salal is dominant in the understory with sword-fern and salmonberry as sub-dominant species.

Status

The ecological condition of this community is excellent, with some trees up to 240 years old. This area is one of few uncut native forest ecosystems of its type remaining along the Oregon coast.

Management

In areas within 150 feet of existing recreational developments and roads, hazard trees will be cut and left on the ground in most cases. Only the immediate section of a tree that falls across a trail or public use area will be sawed out and removed.

SITKA SPRUCE-WESTERN HEMLOCK/SWORD-FERN FOREST (1B)

Description

Farther inland, where salt spray and winds are not so severe, the forest changes to Sitka spruce-western hemlock/sword-fern. Typically, when a Sitka spruce forest reaches maturity, it stops reproducing effectively. Because of the shady conditions, hemlock seedlings do well under a closed canopy. If there are no disturbances, the western hemlock eventually predominates. However, conditions at the coast are dynamic and the forest is opened repeatedly by fire and windthrow and so the Sitka spruce regenerates. This is true in most areas at Cape Meares, which is quite exposed and subject to high winds. Most of Cape Meares is vegetated by this community. The northwestern corner of the USFWS property experienced heavy blowdown of old-growth spruce and hemlock in 1981. It remains where it fell.

Status

The ecologic conditions of this forest type are excellent and it is a good site for the study of forest succession. Spruce trees in this forest are 70-230 years old and the hemlocks are from 1-200 years old. The Natural Heritage Advisory Council (ONHAC) considers the area important for many types of research.
Management

The spruce/salal type and the marine vegetation will be protected for its research value as a natural area. Hazard trees and other problems will be managed in the same way as described for the spruce/salal forest. The forest, complete with fallen trees, has educational and interpretive value. The primitive trails that lead through the area provide the visitor with an awe-inspiring appreciation for the power of nature. Seeing old-growth trees snapped off by the wind or uprooted and thrown to the ground leaves a lasting impression.

HEADLAND SHRUBLAND (2A)

Description

Headland shrubland communities are present on both points of the cape, primarily in areas with southern exposure. Salal and salmonberry are the predominant plants with some sword-fern, black twin-berry, angelica, thimbleberry and Pacific reedgrass also occurring. The presence of angelica and reedgrass indicates that the area was formerly a grassland.

Status

The degree of naturalness is fair to good in this community.

Management

No special management is required.

MARINE VEGETATION ON ROCKY SUBTIDAL SURFACES (1C)

Description

This ecosystem is found along the entire Cape Meares shoreline except for a small area in the south which features a beach composed of loose rocks. The many rock islands increase and diversify the surface area available for plants, algae and animals. Within the marine ecosystems described in the Water Features section of the site inventory are found both vegetated and unvegetated subclasses. The unvegetated type occurs where wave energy is highest and aquatic plants cannot take hold. In more protected areas, the vegetated types are found. Plants found here include surfgrass, floating kelp and submerged kelp.
Status

This type of ecosystem is rare in Oregon but secure globally. The example found at Cape Meares is nearly untouched and of excellent value for scientific research and for preservation of many species. Each species includes a population of many individuals, thus assuring genetic variability, which is vital to the long-term welfare of a species.

ALTERED VEGETATION COVER TYPES

LAWNS AND MAINTAINED VEGETATION (3A)

Description

The altered vegetation types comprise only a small portion of the park. The lawns and maintained vegetation occupy a linear area from the parking lot to the lighthouse. There are some scattered spruce trees and patches of shrubs.

Management

The area will be maintained for picnicking and photographic opportunities.

YOUNG SPRUCE/SALAL TYPE

Description

This type is found southeast of the parking area. An earlier disturbance has removed the old forest in this area and resulted in this younger stand. The stand is quite dense and has matured to the point of having a closed canopy.

Management

Thinning and removal will be done without the use of heavy equipment.

ABANDONED QUARRY (3C)

Description

The area is quite small but important because it lies just to the east of the trail to the Octopus Tree. In the few places where a bit of soil had collected, grasses and herbs are growing.
Management

If the area is eventually used for picnicking, additional topsoil will be provided and lawns maintained. Shrubs along the cliffs will be trimmed to provide views to the ocean.

RARE AND ENDANGERED SPECIES

No rare or endangered plant species are known in this park.
**VEGETATION**

**Natural Plant Communities**
1A Sitka Spruce/Salal Forest
1B Sitka Spruce–W.Hemlock/
  Sword–fern Forest
1C Bedrock Bottoms, Subtidal Zone
2A Headland Shrubland

**Altered Vegetation Cover Types**
3A Lawns & Maintained Vegetation
3B Young Spruce/Salal Type
3C Abandoned Quarry

**CAPE MEARES STATE PARK**
HABITATS

ROCK ISLANDS AND SEA CLIFFS

Description

The steep mainland sea cliffs, offshore rocks, and sea stacks comprise prime, well-used habitat for nesting and feeding seabirds. This habitat follows the convoluted shoreline from near the southern border of the park to the northern border.

Typical Species

The 1979 survey conducted by the U.S. Fish and Wildlife Service reported the following species nesting at Cape Meares. Quantities are in parentheses.

- common murre (655)
- tufted puffin (218)
- pigeon guillemot (50)
- black oystercatcher (4)
- western gull (212)
- pelagic cormorant (124)

The American peregrine falcon used this site for breeding in the past and still winters here. Although actual nesting has not been directly observed, four rhinoceros auklets were seen in breeding plumage as they flew to the mainland at dusk. It is assumed that they are nesting at Cape Meares.

Black oystercatchers breed in limited numbers all along the Oregon coast. The fact that breeding occurs here indicates that the intertidal habitat is undisturbed and of high quality.

The tufted puffin breeding colony is one of the larger ones on the Oregon coast. The Cape Meares site is one of only two mainland sites where they are known to nest. The other site is at Cape Lookout.

The birds and their typical nest sites are listed below.

- common murre: cliff ledge on rock island
- tufted puffin: underground burrow on windward cliff, rock crevice
- pigeon guillemot: boulder pile near surf
- black oystercatcher: flat ground
- western gull: narrow cliff ledge
- pelagic cormorant: steep cliff
- peregrine falcon: burrow or rock slide
- rhinoceros auklet
Management

All of the offshore rocks and part of the headland are owned and managed by the U.S. Fish and Wildlife Service. No pedestrian access is provided. Strong interpretive potential exists here.

BIG GAME RANGE/OLD-GROWTH HEADLAND FOREST

Description

This is an extensive habitat in the park. The major canopy trees are Sitka spruce and hemlock. Microhabitats are rich due to the presence of large snags, downed trees of various ages, and uneven vertical and horizontal structure of the forest. There is good cover for deer and elk.

Typical Species

- Roosevelt elk
- black-tailed deer
- winter wren
- wrentit
- band-tailed pigeon
- Stellar's jay
- chestnut-backed chickadee
- western red-backed vole
- red tree vole
- Pacific shrew
- salamander

Management

No special management is needed.

SHRUBLANDS (FORMER GRASSLANDS)

Description

These small shrubland areas are the probable locations of a former population of Oregon silverspot butterflies that occurred at Cape Meares. This threatened species requires meadow conditions with salt-spray, fog and western blue violet (Viola adunca). The grassland community has now progressed to the next stage of succession, losing its grassland characteristics.

Typical Species

- Oregon silverspot butterfly (no longer present)
- deer mouse
- brush rabbit
Management

A prescribed burn and the reestablishment of Viola adunca will be considered.

ROCKY INTERTIDAL HABITATS

Description

This habitat is very extensive and supports a rich and abundant animal community. This type of ecosystem is rare in Oregon, but secure globally. The example at Cape Meares is nearly untouched and has excellent value for research.

Typical Species

- mussels
- sea urchins
- limpets
- starfishes
- chitons
- crabs

See Oswald West Wildlife for additional information.

Management

This habitat is nearly inaccessible. Some of it is owned and managed by the U.S. Fish and Wildlife Service. No management activities are necessary.

RARE AND ENDANGERED SPECIES

PEREGRINE FALCON (Falco peregrinus)

Description

The American subspecies of this falcon is officially listed as Endangered by the federal government. The three subspecies observed in Oregon are hard to differentiate. All are handsome birds with 3 1/2 foot wingspans and distinctive coloring. The tail is long and banded. The wings are long and sharply pointed. The falcon is known for its fast and dramatic flight as it pursues its food, other birds.

Status and Range

The peregrine is officially listed as Endangered and receives full protection under the Endangered Species Act. Its breeding range is along the Pacific from Northern California to the Aleutian Islands.
Habitat

This bird nests on cliffs along the ocean and in the mountains and woods. It requires an area rich with birds.

Local Occurrence

Before pesticides were heavily used, peregrine falcons were known to nest at Cape Meares. Recently, Peale's peregrine falcons have been observed at Cape Meares during the spring. Although they are not currently nesting here, habitat availability is ideal and there is a good possibility that a pair could colonize this site.

Threats include falconers, pesticides, shooting, and decreased habitat availability.

Management

The use of pesticides and herbicides will be carefully considered and their use limited.

OSPREY (Pandion haliaetus)

Description

The osprey is a large fish-eating hawk with a 5 or 6-foot wingspan. It is dark above and light below except for dark patches on the leading edges of the wings where they bend distinctly forward.

Status and Range

The osprey is uncommon, but is found on all continents. Nesting success has declined due to higher amounts of toxic chemicals in the environment.

Habitat and Life History

Osprey nest high in snags located near a body of water where they can plunge from great heights and catch fish in their talons.

Local Occurrence

An osprey nest occurs at the seaward edge of the forest atop a very steep cliff above an inlet between the two points at Cape Meares. There are records of active nesting in 1974 and 1975 but nest use has not been verified since then.
Management

The food source is abundant and stable. Snags away from roads and developed parts of the park will be protected as wildlife trees. Efforts will be made to improve osprey habitat if possible.

OREGON SILVERSPOT BUTTERFLY (Speyeria zere ne hippolyta)

Description

The Oregon silverspot is a medium-sized, orange and brown butterfly with black veins and spots on the top side of the wings. The underside of the wing has bright metallic silver spots and a yellow band on its edge.

Status and Range

The silverspot is officially listed as threatened on a worldwide basis. It has full protection under the Endangered Species Act in any park that receives federal funds or when any actions require federal approval. The butterfly only occurs within a few miles of the ocean in northern Oregon and southern Washington.

Habitat and Life History

Meadows with salt-spray fog and the western blue violet (Viola adunca) are required by the silverspot. Nearby coniferous trees and shrubs are needed to provide cover from the wind. The presence of grasses and a mixture of herbs further improve the habitat. The adults primarily use the forest and the larval use the meadows.

Threats to the Species

The habitat for this butterfly is being reduced primarily by development along the coast, including parking lots and lawns. The introduction of exotic plants is a minor threat.

Local Occurrence

Cape Meares is the historic site of a population which probably used the areas along the sea cliffs which are presently covered with shrubs (see Vegetation Map). In the recent past it was a grassland. Natural succession and lack of fire are the probable cause of the loss of silverspot habitat.
Management

The Park Natural Resource Planner will work with USFWS and ODF&W on a silverspot management plan to identify high priority habitats and techniques for enhancing those habitats within coastal state parks. Prescribed burns are a possibility.

RHINOCEROS AUKLET (Cerorhinca monocerata)

Description

The rhinoceros auklet is a pigeon-sized pelagic bird that is blackish above with gray throat and breast and white underparts. It is actually a type of puffin with slender, yellow bill. For the breeding season, a white upright "horn" develops at the base of the bill along with drooping white whiskers at either side and white plumes above the eyes.

Status and Range

The entire breeding population in Oregon is estimated at around 400 birds. Although rare in Oregon, the species is secure with populations from Washington to southeastern Alaska and Japan.

Habitat and Life History

The rhinoceros auklet is an animal of the open sea which only comes ashore to breed. It swims underwater, using its wings, as it forages for small fish and crustaceans. It typically lays a single white egg at the end of a long burrow up to 19 feet long which it excavates in the soil of offshore islands or occasionally on headlands.

Local Occurrence

In USFWS studies in 1974 and 1979, four adults in breeding plumage were observed flying near the cape at dusk. It is likely, but unconfirmed, that they are nesting on the sea cliffs of the mainland.

Management

No special management needs are apparent presently, but the situation will be monitored.
BLACK OYSTERCATCHER (Haematopus bachmani)

Description

The black oystercatcher (also called the American black oystercatcher) is a large jet black shorebird with a large, bright orange-red bill. The light eyes and flesh-colored legs and feet contrast sharply with the black feathers. The bird is 17 inches in length. The alarm call is a repeated piercing whistle.

Status and Range

Although the black oystercatcher can been seen from central Baja California through the Aleutian Islands, it is somewhat rare in Oregon. In a 1979 USFWS study, 213 were counted in Oregon.

Habitat and Life History

Oystercatchers inhabit rocky shores and offshore islands. They prey on mussels, limpets and chitons of the rocky intertidal zone, using their bills to pry and chisel their food loose.

Before nesting, the birds undertake conspicuous, long courtship flights, screeching loudly as they turn and twist in the air. The nest is an unobtrusive dish of small pebbles and shell fragments laid down on flat rock usually just above the splash zone. The three well-camouflaged eggs are closely guarded by both adults.

Local Occurrence

Two pair of oystercatchers were seen nesting among boulders at the lower margin of the Cape Meares headland in 1979.

Management

Because of the inaccessibility of the rocky intertidal zone, no special management is necessary.

TUFTED PUFFIN (Fratercula cirrhata)

Description

In the breeding season the pigeon-sized tufted puffin looks grand, if not whimsical, with its white facial feathers, long flowing ivory eyebrow feathers, and bright orange-red bill plates on a large parrot-like bill. All
of these shed after the breeding season. The puffin looks considerably more somber in its black and gray winter plumage, retaining only a bit of red on the outer end of the bill.

Status and Range

Oregon is toward the southern end of the tufted puffin range which extends from central California to northern Japan and throughout the Bering Sea. The species is common, but only locally abundant in Oregon where there are 16 known nesting sites.

Habitat and Life History

Puffins nest in deep burrows which they excavate with their beaks and sharp claws. A single white egg is laid at the end in a scant nest of grass.

Their food consists mainly of crustaceans, cephalopods and small fishes which the puffins capture by diving from the surface and using their wings to "fly" underwater.

Tufted puffins spend their winters at sea.

Local Occurrence

Cape Meares is one of two known mainland nesting sites in Oregon. There are five nesting areas from the southern to the northern boundary used by an estimated 218 puffins in 1979. Nehls of the ODF&W reported considerably fewer in 1984.

Management

The presence of the tufted puffin and other nesting seabirds presents good interpretive possibilities. No special management is needed.

BALD EAGLE (Haliaeetus leucocephalus)

See Oswald West, Wildlife information for description, status, range, habitat, threats and management.
Local Occurrence

An employee of the USFWS reported seeing a bald eagle perched ten feet above a large stick eagle nest during the breeding season (April) in 1985. From a helicopter it could be seen that the nest had not been used for a couple of years. Eagle pairs sometimes have two or more nests and vary which nest they use. Eagle sightings have been reported by others at Cape Meares.

The eagle nest is located high in a tall snag with many branches. The snag is on a west-facing slope on USFWS property, about 150 feet uphill from the trail.
ROCKY SUB/INTERTIDAL
Mussels
Starfishes
Sea Urchins
Chitons
Limpets
Crabs

ROCK ISLANDS &
SEA CLIFFS
Black Oystercatcher
Pelagic Cormorant
Western Gull
Pigeon Guillemot
Common Murre
Tufted Puffin

WILDLIFE
CAPE MEARES
STATE PARK
Cape Meares State Park is a rugged, wooded park which offers excellent views of the ocean and of the nearby off-shore rocks which are part of the Three Arch Rocks National Wildlife Refuge. The park provides many opportunities to view birdlife and migratory whales.

County Comprehensive Plan Designation: Scenic overlay.

The headland at Cape Meares is a designated scenic area.
HISTORIC AND ARCHEOLOGIC FEATURES

CAPE MEARES

HISTORIC FEATURES

The park is named for the prominent headland which is within the park boundaries and which is a main feature of the park. The Cape Meares headland was named in honor of the English explorer, Captain John Meares, an early explorer and adventurer in the Pacific Northwest. Among his accomplishments were successes as a fur trader, geographer, author, and pioneer for two of the west coast's most important industries: ship building and timber exporting.

Discovery

In his second voyage to the northwest in 1788, after one to Alaska in 1786, Meares established a base on Nootka, now known as Vancouver Island, where he built a small fort. Here he began the first of his pioneering industries, shipbuilding. Among his crew were ship builders, craftsmen and artisans, many of whom were Chinese, the first to be brought to the Pacific coast.

While this work was going on, Meares continued his voyage, traveling south along the shoreline of Washington and Oregon. On July 6, 1788, he passed the mouth of the Columbia River, but failed to recognize it as a river. He continued south and identified many prominent features of the Oregon coast, including Cape Grenville (probably Cape Falcon), Quicksand Bay (Tillamook Bay), Cape Lookout (Cape Meares), and Three Brothers (Three Arch Rocks). Having failed to find the great river for which he was looking, he returned to Nootka. His return voyage to China was the beginning of a second pioneering industry—timber exporting. On board ship was a deck load of spars, the first to be shipped from the Pacific Northwest.

The Lighthouse

When Captain Meares sighted the cape which now bears his name, he called it Cape Lookout. As time went on, Cape Lookout came to be the name used for another prominent headland, ten miles farther south. Charts prepared by the Coast Survey in 1830 and 1853 show Cape Lookout to be that headland ten miles south of Cape Meares. George Davidson of the U.S. Coast Survey decided that since the name Cape Lookout was so well established for the south cape that it should remain, and so he decided to name the northern cape for its discoverer, Captain Meares.

Unfortunately, there were many who still thought that what had originally been called Cape Lookout was still officially Cape Lookout. This confusion in names led to a major error in 1889.
In order to improve navigation and safety, the U.S. Lighthouse Establishment directed that a new lighthouse be constructed on Cape Lookout, the southern cape. This headland had been surveyed and designated for a new light many years earlier. Unfortunately, the team doing the construction put the lighthouse on the northern cape. The mistake was not discovered until 1890 when the new structure was nearly complete. Not surprisingly, it was decided that it would be prohibitively expensive, not to mention difficult, to relocate the lighthouse to its originally intended position and so it remained in service at Cape Meares for many years.

The steepness and height of the headland and the denseness of the vegetation made construction of the lighthouse was quite difficult. The crew sent to build the lighthouse had to hack out a dangerous switchback trail and haul most building materials in by ox and horse teams. Some of the materials for the structures came from the immediate site of the lighthouse. Clay for the bricks was excavated and fired at the site and a blacksmith shop was built during the construction of the lighthouse. The areas where both of these facilities were located can still be seen in the park.

The lighthouse tower sits at the westernmost end of the cape, with the focal plane 217 feet above the level of the ocean. The tower itself is 40 feet high, constructed entirely of iron. The base of the tower is a polygon, approximately 14 feet wide and 18 feet high. A circular iron stairway winds up to the second floor where the stand for the light is located. On the third level is the lens itself, surrounded by a narrow walkway and protected from the elements by a thick plateglass shield constructed of 48 framed sections bolted together. In times of especially violent storms, even this protection and the height of the light above the sea, were not adequate to prevent rocks from being torn from the headland and tossed through the plateglass panes.

The lighthouse was a first-order light, meaning that it was one of the most powerful lights, and it had a lens unique to the Oregon coast. There is only one other lens known to be like this one and it is located in Hawaii. The lens, weighing over a ton, was hand ground in Paris by Henry LaPante, and consisted of eight alternately red and clear panes, which caused the beam to flash as it turned. The lens was shipped around Cape Horn and hoisted over the steep cliff to its position in the lighthouse by a hand-operated derrick built of spruce trees taken from the site. The beam could be seen from 21 miles out at sea.

The first light source for the lighthouse was a five-wick kerosene lamp and the light was turned by a clock/weight mechanism which required winding every two-and-a-half hours. In 1910, the light source was replaced by an incandescent oil vapor lamp. The operation was greatly modernized in 1934.
when electricity was used to supply the light and also to turn the lens. The electrification greatly improved the intensity of light sent out to sea.

In 1963, the most recent modernization took place, resulting in the closing of the old lighthouse. An automatic light, producing two million candlepower, compared to 180,000 candlepower of the old light, was installed near the old light. This unmanned station now provides for the safety of the ships at sea.

In 1978, the lighthouse was taken over by the Oregon State Parks and Recreation Division. At that time, the lighthouse was refurbished and restored, and an addition was built at the base of the light to house an educational display area.

During the time that the light was manned, there were additional buildings on the site to house the crews who had responsibility for the light. These were removed after the site was acquired by the Parks.

The lighthouse is eligible for listing in the National Register of Historic Places and has been nominated for that status.

Octopus Tree

This old Sitka spruce, located at the edge of a cliff overlooking the ocean, is called the Octopus Tree because of its peculiar shape. Instead of growing straight with a single trunk as the surrounding forest trees do, it has developed many large branches which radiate out horizontally at a height of eight to ten feet. These branches then arch upwards forming large flat areas on top of each of these radiating branches.

There are a number of theories to explain the shape of this unusual tree. One is that the strong winds, which blow often at the coast, caused the tree to develop its abnormal habit. Another theory is that Native Americans purposefully guided the tree's development to this shape. It is reported that this was a special tree used as a meeting place by the Tillamook shamans or medicine men.

It has also been postulated that the tree was forced into this shape by the Native Americans so it could be used as a burial tree. Some coastal tribes were known to wrap their dead in elk skins and place them on cedar platforms in trees. Any tree used for such a purpose would need flat areas where the platforms would be placed. Native Americans were also known to place the bodies of their dead in canoes which may have then been placed in burial trees.
Three Arch Rocks National Refuge

Just south of Cape Meares is the Three Arch Rocks National Wildlife Refuge. Thousands of seabirds and waterfowl are found on the islands and sea lions use these rocks as a rookery. This refuge is closed to the public in order to provide maximum protection to the wildlife that use the area.

In addition to their value as a wildlife refuge, these rocks provide scenic interest from Cape Meares State Park and from Oceanside Beach State Wayside.

ARCHEOLOGIC FEATURES

There are no known archeologic features here.

PARK BACKGROUND

Cape Meares State Park exists because of various leases and agreements with a number of federal agencies including U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), and the Coast Guard. The park was first established in an agreement with the Bureau of Biological Survey (now the USFWS) to cooperatively administer 138.5 acres. A new agreement was recently made with the USFWS for the same purpose.
Zoning

RM - Recreation Management with Shoreland Overlay

Jurisdiction

Tillamook County

Tillamook County

Comprehensive Plan

Needed for water-dependent and water related uses.

Coastal Headland

Exceptional aesthetic resource

Historic sites

1. Cape Meares Lighthouse
2. Octopus Tree
3. Cape Meares

Significant wildlife habitat

1. Cape Meares National Wildlife Refuge
2. Osprey Nest
Cape Meares consists of 232.84 acres, all of which is subject to conditions under the agreements we have with the various federal agencies who are the owners of this land.

Memorandum of Agreement with U.S. Fish and Wildlife Service which allows 138.5 acres of National Refuge land to be used for state park purposes, under specific management objectives which are:

1. to maintain existing protected habitat for nesting seabirds.
2. to provide habitat for other compatible wildlife.
3. to maintain as near a natural state as possible.
4. to maintain the existing old growth forest in an unaltered state.

Parks will continue to maintain the Coast Trail in the Refuge area and the trailhead near the entrance.

File No. 41302

U.S. Patent No. 36-68-0072. The U.S. Bureau of Land Management granted 92.78 acres to the State of Oregon for "public park purposes only," with the following exceptions and reservations going to the United States:

1. A right-of-way on the land for ditches or canals constructed by the authority of the U.S.
2. All proceeds from the sale or disposal of timber.
3. All mineral deposits.
4. The right to maintain and repair the road to the lighthouse.

File No. 41302

Permit DOT - CG 13-142-68. Revokable permit from the U.S. Coast Guard to the State of Oregon for the use of the tower and optic of the former Cape Meares Light Station Reservation. The permit is subject to a number of provisions and conditions, among which are that Parks will post and maintain a sign advising the public that "this tower is being maintained by the State of Oregon," that Parks is not permitted to operate the optic or provide illumination in or on the premises without prior
consent and that Parks may not make any additions to, or alterations of, the premises without prior consent. The fenced, 25' square, property on which the new automatic light is located is deleted from the license agreement.

Permits

Permit 79-05
Agreement with Crown Zellerbach on Crown Zellerbach land, at northeast corner of park, for 10' wide trail right-of-way. State has right to use, maintain, relocate and repair area for trail.

Permit (No #)
Easement from U.S. Fish and Wildlife Service granting state an easement to cross federal land for the park entry road.
Cape Menoraz.

Property Ownership, Leases, and Easements.
RECREATION NEEDS ASSESSMENT AND PUBLIC INPUT
LAND USE CAPACITY AND RECREATION USE
RECREATION OPPORTUNITIES WITHIN COASTAL STATE PARKS
RECREATION NEEDS
RECREATION IN TILLAMOOK COUNTY
RECREATION IMPACTS
PARK ACREAGES
TRAFFIC VOLUMES
POPULATION FIGURES
PUBLIC MEETING
MAILING LISTS
CAPE MEARES-USFWS AGREEMENT
FOREST MANAGEMENT DOCUMENTS

PLANNING DATA
TILLAMOOK COUNTY COASTAL STATE PARKS
RECREATION NEEDS ASSESSMENT AND PUBLIC INPUT

STATISTICS

A number of methods for ascertaining park visitor use and needs are employed by park personnel in order to know who uses the parks and what they like and don't like about them. These methods range from vehicle counters to visitor surveys to personal conversations with park visitors.

The statistics on annual park use for each park are found in the appendix of the plan.

5-Year Visitor Survey

Every five years, Parks conducts a thorough visitor survey for the entire park system. The most recent survey was done in 1984. Part of the statistics for that report came from parks being studied for this master plan—Nehalem Bay and Oswald West.

Many general conclusions can be drawn from the visitor survey. The visitor survey presents information on four general topics: who visits the parks, what park activities they prefer, how well the park meets their needs and expectations, and visitor responses to park management issues. The survey measures and compares the responses of local and out-of-state visitors and day-use and camp visitors.

Briefly, the survey provides the following information to park planners.

Park Visitors

61% are from Oregon
39% are from out-of-state

56% are day visitors (63% Oregon, 3% out-of-state)
44% are overnight campers (53% Oregon, 47% out-of-state)

The average visitor has a family income of over $28,000/year and has two years of education beyond high school.

Visitors travelled an average of 121 miles to reach the park.

Park Activities

Oregonians are apt to visit the same park more often and stay there longer than out-of-state visitors. The out-of-state visitors are usually touring and spend less time in the parks both as campers and day-users.
All park visitors have a substantial impact on the economy of local communities near the park. The average visitor spends $93 within 25 miles of the park during his or her stay.

All park visitors tend to participate in the same kind of recreation activities. Highest priorities are on relaxing, picnicking, camping and sightseeing.

**Satisfaction Level**

Most park visitors are quite satisfied with the quality of the parks. Ninety-three percent said park quality was good or excellent. Ninety-eight percent found employee courtesy to be satisfactory; ninety-four percent found park cleanliness to be satisfactory.

**Issues**

The issues portion of the survey asked for visitor response to questions about how to increase revenues, cut costs, and under what conditions to remove trees from parks.

A more detailed summary of the report is available from the Parks and Recreation Division office in Salem.
LAND USE CAPACITY AND RECREATION USE

As part of each master plan, the State Parks Division is required by law to make a "...determination of the capacity for public use and enjoyment of each park..." This concept of public use and enjoyment consists of many elements, all of which are considered in making a capacity determination.

The methodology used by parks planners in making these determinations is shown in the schematic planning chart.

The inventory of existing facilities and natural resources, the determination of ecological stability, assessments of recreation needs, and analysis by park management and public agencies and interested citizens assure that all aspects of this recreational capacity are considered.

The first element to be considered is the ecological carrying capacity of the land. This is the ability of the park's natural resources to withstand certain use levels, without significant deterioration to the quality of the resource. Erosion, loss of water quality, and the deterioration of vegetative quality are measurable results of too much use. Park's natural resources are among its most valued assets and are among the reasons why many people visit the parks. Protection of these resources enhances the public's enjoyment of the parks while degradation of resources reduces the public's enjoyment. The ability of the land to withstand the impacts of recreation activities is an important factor in determining the kind of recreation which can occur in any area.

Another element used to determine recreation use is the physical carrying capacity of the land for a specific activity; that is, the amount of space needed for specific activities such as picnicking, camping, or game playing.

The physical size of facilities and structures in the parks also has an effect on the recreational capacity of a park or wayside. This capacity is based on the numbers of people that can be accommodated in a building or facility. Buildings can hold only so many people and parking lots and roads can handle only so many vehicles without reducing the public enjoyment of that facility.

The last element to be considered is that of social carrying capacity of a park. Social carrying capacity depends on the type of recreation that occurs in a given area and the quality of that recreation as it is experienced by the people in that area. The numbers of other people present in the area, the activities in which they are engaged and the distraction, if any, which they present are all elements in the perceived quality of the experience. Social carrying capacity is determined by park users and by park planners and managers.
Social carrying capacity is somewhat subjective but since most state park users enjoy the state parks because of their outstanding natural attributes, the social carrying capacity is often based on preserving and protecting those attributes. This relates back to maintaining ecological carrying capacity of the land.

Of course, there are many cases when it is desirable to provide opportunities for people to come together in closer contact with each other. The opportunity to meet new people, observe others at play, and interact with them is also an important consideration in recreation planning.

Management of parks and waysides depends on protecting both the natural environment and the recreation opportunities so that both are protected, enhanced and enjoyed. Management practices and the design of recreation facilities play an important part in the perceived quality of a recreation experience.

Each park or wayside has been analyzed, based on its natural resources, physical size, existing and proposed facilities, and appropriate type of recreation experience. If any of these elements are exceeded, the capacity of that area is being exceeded and the public use and enjoyment of the area is diminished.
RECREATION OPPORTUNITIES WITHIN COASTAL STATE PARKS

Each type of landscape found at the coast has its own characteristics, opportunities and constraints for recreation activities and developments. Generally, landscapes at the coast fall into one of the following categories.

Coast and Beach

The sand beach at the edge of the ocean provides the opportunity to experience the dynamic meeting of ocean and land. Beachcombing, walking and wading in the ocean are popular activities in this area. Opportunities exist for isolation or for participating in group activities.

The fluctuating water level imposes constraints on any permanent improvements in this area, leaving it free for any recreation activity which does not require a constructed setting.

Dune Complexes

The various types of dunes offer a variety of recreation opportunities depending on the degree of vegetation and the amount of stability. In most cases, activities in the recently stabilized areas should be restricted since these areas are prone to erosion and reactivation to an active dune state. Defined and limited trails are an acceptable use of these areas, but motorized access should be restricted or denied. No permanent structures are allowed in these areas.

Deflation Plains

Deflation plains are dynamic, annually changing environments. The amount of water, condition of the vegetation, and species of animals using the deflation plains change during the course of the year.

Deflation plains are one of the few areas on the coast where waterfowl feed and rest.

The seasonal flooding and use of these areas by many kinds of wildlife place limits on the amount and kinds of recreation which should occur here. There are opportunities for wildlife viewing and limited access. These areas can be used in education and interpretation projects. Permanent structures are limited to signs, trail shelters and minor structures.
Estuaries

Estuaries are among the most important and productive environments to be found anywhere. These areas provide numerous opportunities for fishing, boating, viewing scenery, studying bird and wildlife and experiencing the special qualities of the estuary.

Recreation activities which do not affect the environment or water quality can occur here.

Meadowed Headlands

Meadowed headlands are relatively uncommon and often provide habitat for unusual or even rare and endangered species of plants and animals. Access to these areas is often difficult and soils may be unstable.

These areas do offer excellent opportunities for viewing scenery, and observing waterfowl and annual whale migrations. These headlands are often the sites for lighthouses which offer another kind of recreation and education opportunity.

Care must be taken not to degrade the environment, but these areas can often be used as prime recreation areas.

Timbered Headlands

These densely forested areas provide unique opportunities to explore an unusual environment. There are excellent opportunities for providing views of the ocean and of the surrounding landscape. Trails in these areas allow access to remote sites through areas which are filled with interesting plants and animals.

The terrain in these areas is often steep, access may be difficult and soils can be unstable.

Frequent severe storms on the coast often cause damage by blowing down timber and washing out trails.

Many kinds of recreational opportunities can be provided here as long as care is taken in siting the facilities.

Sand Spits

Sand spits are areas which are usually stable to some degree and allow recreation activities which do not have a lasting impact nor require any permanent structures.

Trails, beach activities and picnicking are typical activities which can occur on sand spits.
RECREATION NEEDS

Recreation needs are determined through study of available literature, discussions with local planners, park managers and administrators and field observation for indications of over- or under-use.

Information provided in the State Comprehensive Outdoor Recreation Plan (SCORP) provides some basis for determining future needs, but that data tends to be rather general and not park specific.

Of greater value are discussions with local planners and observations made by the local park managers. Additional input from visitor surveys and public meetings is also of value.

The SCORP data for Tillamook County indicates that there is an oversupply of some recreation facilities and a need for others. According to the 1983 edition of SCORP, there is a very large oversupply of campsites in the county.

There is a significant undersupply of recreation facilities such as picnic tables, walking/hiking trails, biking trails, and bridle trails. These are all facilities which can be supplied in part by State Parks. However, information gathered from the local comprehensive plan and from discussions with local planners indicates that there is little need or desire for much expansion of recreation facilities in the county, at least at the state agency level.

There is a strong desire on the part of many Tillamook County residents to maintain their present quality of life which tends to be rural, low key and strongly interested in preserving the natural resources of the area.

There is also a concern for balancing the revenue gained from tax-assessed private property against the service needs generated by the non-local recreation population. The non-local recreationists contribute a good deal of revenue to the area, but they also cause the county to make additional expenditures in order to provide fire and police protection and improved roads and utilities. The recreation season is relatively short and the recreation needs are seasonal, but the impact of making these kinds of improvements is permanent.

It has been concluded that recreation needs in Tillamook County are adequately met to provide for local and statewide demand for varied recreation opportunities.
RECREATION IN TILLAMOOK COUNTY

There are many areas other than State Parks which are available for recreation in Tillamook County. The following summary lists type of recreation provided, the number of acres, and the kind of recreation available from each.

FEDERAL

BLM and National Forests - 144,000 acres (43 acres developed). Tent camping, fishing, hunting, picnicking.

STATE - OTHER THAN STATE PARKS

State Forest - 309,000 acres (183 acres developed). Fishing, hunting, picnicking.

STATE PARKS

State Parks & Waysides - 7,480 acres. Tent & trailer camping, fishing, nature study, ocean beach access, picnicking, swimming, hiking. Parks supplies 38 percent of the tent and trailer campsites, 68 percent of the picnic tables, and a third of the hiking trails and viewpoints.

COUNTY

County Parks - 2,994 acres. Tent & trailer camping, fishing, ocean beach access, swimming.

QUASI-PUBLIC

Scouts, Churches - 712 acres.

PRIVATE

Campgrounds, charter boats, marinas, golf courses - 833 acres.
RECREATION IMPACTS

There are very few recreational expansions or new developments which will have any measurable impact on the surrounding cities and local areas. Most of the parks and waysides under consideration are already developed as much as is desirable or necessary.

The only park where there is a large area which is suitable for significant expansion is at Nehalem Bay State Park. When it has been demonstrated that there is sufficient demand for additional camping, the campground area will be expanded. See Nehalem Bay Development Plan Summary for further discussion of this proposal.
<table>
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### POPULATION FIGURES*

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*Source of Information: Center for Population Research and Census, Portland State University

** Estimate
A public meeting was held on July 17, 1985, at the meeting hall in Nehalem Bay State Park. Approximately 35 to 40 people, mostly local merchants and citizens attended.

A copy of the summary report of that meeting follows.

The mailing list for the public meeting is in the Appendix.
PUBLIC MEETING

to discuss the
PRELIMINARY MASTER PLAN PROPOSALS
for the following
COASTAL STATE PARKS
in
TILLAMOOK COUNTY

OSWALD WEST STATE PARK
NEHALEM BAY STATE PARK
CAPE MEARES STATE PARK

NEAHKAHNIE-MANZANITA STATE WAYSIDE
MANHATTAN BEACH STATE WAYSIDE
ROCKAWAY BEACH STATE WAYSIDE
TWIN ROCKS STATE WAYSIDE
OCEANSIDE BEACH STATE WAYSIDE
NESKOWIN BEACH STATE WAYSIDE

THE MEETING HALL AT
NEHALEM BAY STATE PARK
WEDNESDAY
JULY 17 7:00 PM

REPRESENTATIVES OF THE OREGON STATE
PARKS & RECREATION DIVISION WILL BE
PRESENT TO HEAR YOUR COMMENTS AND
ANSWER YOUR QUESTIONS.
TO: The Files

FROM: Nancy Gronowski
Landscape Architect

SUBJECT: Public Meeting - Preliminary Tillamook County Coastal State Parks Master Plan

Location: Meeting Hall, Nehalem Bay State Park
Time: 7:00 p.m., July 17, 1985
Attendance: Estimated 35-40; mostly local merchants, some interested citizens
Park Staff: Larry Jacobson, Joe Paiva, Al Tocchini, Darald Walker, Jeff Farm, Ed Kornblum, Dennis Davidson

Purpose of Meeting:
To present the preliminary proposals of the master plan, answer questions and take public comment on the plan.

Presentation:
Nancy Gronowski, with assistance from Park staff.

Proceedings:
Opening remarks and discussion of how meeting would be conducted.

Brief presentation on planning process and present status of master plan.

Summary comments on the proposals for each park and wayside (waysides first, then Cape Meares, Oswald West and Nehalem Bay).

Questions were answered after each phase of the preceding presentation. The meeting was then opened up for public comments. Ten people made statements for the record. Their comments are summarized below.

JOHN HANDLER - Chief, Manzanita Fire Dept. Would like to have access to north jetty; is in favor of bike path down the spit; keep old entry road for exit only, if it can also allow passage of entering emergency vehicles at the same time. Would like to have fire break between park property and lands to the north.
ROBERT RIEKE - Resident of Manzanita. In favor of bike path down jetty; not in favor of horse camp in park, but, if included, put it on the spit.

ANN RIEKE - Resident of Manzanita. Against horse camp in park.

PAT RINEHART - President, Manzanita Merchants Association; gallery owner in Nehalem. Read letter into record; asked a number of statistical questions about park: present use levels, future campground development, use of horse camp, circulation changes.

GERALD CREASY - Commissioner, Tillamook County. Commented that we had not shown dredge disposal sites on our plans, and noted increased problems with garbage in area.

JERRY MUCEUS - Resident of Manzanita. Against proposed location of horse camp due to proximity of airport and nearness to protection area; against any one-way traffic at old park entry.

VICTOR HOWELL - Resident of Manzanita. Read a letter addressed to me from Frank & Beverly Imper, dated March 3, 1985. Most items concerned desire to eliminate horses from camp. Speaking for himself, he would like to see old park entry open for traffic in both directions and likes the idea of the bike trail to the jetty.

HOWARD WILSON - City Manager, Manzanita. Read a letter into the record, included comments about keeping airport, moving the horse camp away from the residential area, defining the campground expansion, creating a turnaround at 11th Street, liked idea of kiosk within park.

LESLIE BARNARD - Vice President, Oregon Equestrian Trails. Spoke about horse groups, responsible attitude of most, problems with some. Expressed willingness to help relocate horse camp if we decided to move it.

ANN SWAIN - Business owner, Rockaway. Spoke about need for more garbage containers, dumpsters in parks and waysides, better signage to restrooms in Rockaway.

RAY SMITH - Mayor, Manzanita. Thanked us for coming and holding meeting.

At this time, Larry and Darald addressed the issue of garbage, including amount of residential garbage included with normal tourist-generated garbage. Also talked about costs, land fill sites and equipment.
Howard Wilson asked what was meant by Creasy's comment that we were not showing the disposal sites. I briefly explained the situation—that we were aware of the County's designated sites, but that we disagreed with the location of two of the sites and stated that we were presently working with the County on that issue.

I told the audience that we would accept comments on the plan until July 31, 1985, and thanked them for attending.

The meeting ended at approximately 8:40 p.m.

After the meeting, I spoke with Deborah Brooker, coastal planner for the County and with Jerry Woodward, County Commissioner. We discussed the need to work together to resolve the dredge disposal issue.

Deborah stated that the language addressing the dredge disposal sites which we have proposed to include is not adequate for them to find our plan to be in compliance with their comprehensive plan. The issue of the County-owned road rights-of-way within the park is also going to be a difficult issue to resolve. The County commissioners seem to be against vacating those rights-of-way to us. They want to keep some kind of leverage over us. I expressed displeasure at this attitude.

Other than the county planning issues, there were no real problems with the Park's plans. The plans will be refined and a summary of our proposed changes sent to the meeting participants and other plan holders.

NG/js
cc: Larry Jacobson
    Joe Paiva
    Darald Walker
    Ed Kornblum
    Al Tocchini
    Al Cook
Park plans preview inspires concerns

By DON CULLMORE
Correspondent, The Oregonian

MANZANITA - Garbage, dredge spoil sites, horses and access to the North Nehalem Bay Jetty topped the list of concerns voiced by Tillamook County residents attending a State Parks and Recreation Division hearing.

Nearly 50 persons attended the public meeting here Wednesday night, when they were given a preview of the parks division's long-range plans for state parks and waysides in the county.

Hearing officer Nancy Gronowski, a parks division landscape architect, told the group that most of the county's five parks and six waysides would be maintained in their present condition for the next 10 to 15 years.

Gronowski said the only proposed changes in park facilities were for the 878-acre Nehalem Bay State Park three miles south of Manzanita.

Changes being proposed include making entrance and exit roads one-way, relocating an 18-stall horse camp and building new restrooms and new boat-launch shelters.

Gronowski said long-range plans for the park might include expanding its camping sites from the current total of 292 and building courtesy docks and a fishing pier at the park's boat-launch ramp on Nehalem Bay.

Numerous persons voiced complaints against the horse camp currently located in the park.

They said the horses were dangerous to people walking or lying on the beach, created cleanup problems because of droppings left on beach and campground areas and posed additional problems when ridden on nearby residential streets.

Spokesmen for the Manzanita and Nehalem volunteer fire departments asked the parks division to improve a three-mile grass-covered emergency access road to the North Nehalem Bay Jetty.

Receivce crews must use the road to reach the jetty when boating accidents occur. Several persons suggested that the access road be made into a bicycle and pedestrian path.

County Commissioner Gerald Creasy and Rockaway Beach Mayor Ann Swain complained that the park division did not maintain an adequate number of garbage containers at park waysides in the county.

Both said this resulted in large amounts of trash being left in the open at the waysides.

Larry Jacobson, deputy parks administrator, acknowledged that the problem of garbage collection at state waysides and parks is a serious one throughout the state.

He and other parks officials said most of the garbage problem in Tillamook County apparently is being caused by local residents or vacation-home owners who leave home garbage at waysides instead of taking it to county collection stations.

Parks officials also were asked if future plans for Nehalem Bay State Park included sites where dredge spoils from the bay could be dumped.

County officials are seeking federal funds to dredge a 100-foot-wide navigation channel from the mouth of the bay to the community of Wheeler, several miles inland.

Gronowski said no definite sites had been selected in the park for dredge spoils, but noted that the issue was being negotiated with the county.

Gronowski also said the 2,800-foot landing strip for small aircraft would be maintained at Nehalem Bay Park until at least 1983, but that no additional improvements to the landing area would be made.

During warmer months of the year, the strip receives heavy use by vacationers who fly in from as far away as Washington and California.
"CORE" MAILING LIST
(313BC/124A)

Special Interest Groups

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MEMORANDUM OF AGREEMENT

Between the

U.S. FISH AND WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

and the

PARKS AND RECREATION DIVISION
DEPARTMENT OF TRANSPORTATION
STATE OF OREGON

FOR THE USE OF CAPE MEARES
NATIONAL WILDLIFE REFUGE
FOR STATE PARK PURPOSES

This MEMORANDUM OF AGREEMENT (MOA) MADE THIS 16th day of July, 1985, between the UNITED STATES FISH AND WILDLIFE SERVICE, hereinafter referred to as FWS, acting by and through its Regional Director, Region One, Portland, Oregon and the STATE OF OREGON, DEPARTMENT OF TRANSPORTATION, PARKS AND RECREATION DIVISION hereinafter referred to as PARKS, WITNESSETH, THAT:

WHEREAS, CERTAIN LANDS adjacent to Cape Meares State Park in the State of Oregon have been managed as a National Wildlife Refuge since 1938, and

WHEREAS, these same lands have been used by PARKS under special use permit from that time for the purpose of maintaining certain public facilities, and

WHEREAS, BOTH FWS AND PARKS wish to continue such use but realize said permit is outdated.

NOW THEREFORE, the parties hereto agree as follows:

1. The FWS shall continue to administer Cape Meares National Wildlife Refuge as a unit of the National Wildlife Refuge System and in accordance with the laws, regulations, and policies governing National Wildlife Refuges, as put forth in Title 50 CFR.

2. PARKS shall continue to administer its lands in accordance with Oregon Revised Statutes (ORS) 390, providing recreation opportunities in a scenic natural setting and protecting the natural resources.

3. Cape Meares National Wildlife Refuge will be managed under the following objectives.

   -- To maintain existing protected habitat for nesting seabirds.

   -- To provide habitat for other compatible wildlife.

   -- To maintain as near a natural state as possible to enable people to better understand their role in this environment.
To maintain the existing old growth forest in an unaltered state.

4. Management of the forest resources shall continue to be administered by the FWS, except that State Parks will pay the annual fire patrol assessment to the State Forestry Department. PARKS will be allowed to remove any trees that it determines present a safety threat or public hazard around developed areas and structures.

Since it is a management objective to maintain the old growth in an unaltered condition, mechanical control of fire will be allowed only at the refuge boundary and at established roadways. Control efforts within the refuge boundary will be by manual methods or by aerial control. No vehicular traffic or mechanical equipment is permitted in the interior of the refuge.

5. The FWS will post the area as a National Wildlife Refuge.

Since access to PARKS land is over FWS land, PARKS will be allowed to post an entrance sign similar to the one presently located at the entrance, with the park name and facilities described on it, at the intersection of the Three Capes Scenic Route and the park entry road.

Any additional signing by PARKS shall be approved in advance by FWS and shall be in keeping with the primary use of the area as a National Wildlife Refuge.

Any signing by FWS on PARKS land shall be approved in advance by PARKS and shall be in keeping with park recreation values and signing standards.

6. PARKS will continue to provide and maintain a trailhead with signs and parking near the intersection of the Three Capes Scenic Route and the park entry road.

7. PARKS shall provide management support to the Refuge in a manner consistent with State Park management in accordance with laws and regulations governing State Parks in the State of Oregon, and in accordance with the laws, policies, and regulations governing National Wildlife Refuges.

8. PARKS will continue to provide and maintain public access to the State Park at all times.

9. Nothing shall interfere with the right of officers, agents, and employees of either FWS and/or PARKS at all times and places to have full access rights to the area covered by this agreement for the purpose of conducting individual agency operations.

10. Prior written approval by FWS shall be required for any additional uses beyond those in effect at the signing of this MOA.

11. The existing segment of the coastal trail passing through the Refuge will be maintained by PARKS in a safe, stable, and aesthetic condition. Any changes in the trail location and/or condition shall require prior written approval from FWS.

12. This Memorandum of Agreement, when approved by both parties, shall be effective until terminated or amended. Amendments will require mutual approval and termination will require sixty days' notice in writing by either party.
The Oregon Transportation Commission, by duly adopted delegation order (OTC Delegation Order No. 26, paragraph 17), authorized the State Parks Administrator to act in its behalf in approving and executing this agreement.

APPROVED AS TO LEGAL SUFFICIENCY:

[Signature]
Assistant Attorney General
Date: 2-14-86

STATE OF OREGON, by and through its Department of Transportation, Parks and Recreation Division

[Signature]
State Parks Administrator
Date: 2/14/86

THE UNITED STATES OF AMERICA
Department of the Interior

[Signature]
Regional Director
U.S. Fish and Wildlife Service
Date: 2-7-86
CHAPTER 736. DIVISION 18 - STATE PARKS AND RECREATION DIVISION

DIVISION 18

STATE PARK MASTER PLAN

Master Plan
736-18-000 (1) ORS 390.180 on state park master plans requires the Administrator of the State Parks and Recreation Division to adopt rules which establish a master plan which shall be followed in the development and use of each state park.

(2) To implement this directive, the following master plan documents, which include an assessment of resources, land use and development plans, and a determination of the capacity for the public use and enjoyment of each of the following state parks, are hereby adopted by rule (See Exhibit 1):

(e) Fort Stevens State Park, as amended;
(b) Cape Lookout State Park;
(c) Cape Kiwanda State Park;
(d) Nestucca Spit State Park;
(e) Jessie M. Honeyman State Park;
(f) West Columbia Gorge State Parks (including: Lewis and Clark State Park, Dabney State Park, Portland Women's Forum State Park, Crown Point State Park, Guy W. Talbot State Park, George W. Joseph State Park, Rooster Rock State Park, Shepperd's Dell State Park, Bridal Veil Falls State Park, Benson State Park, Ainsworth State Park, McLoughlin State Park, and John B. Yeon State Park);
(g) Molalla River State Park;
(h) Champoeg State Park;
(i) Willamette Mission State Park;
(j) Cascadia State Park;
(k) Elijah Bristow State Park;
(l) Cove Palisades State Park;
(m) Silver Falls State Park Master Plan;
(n) North Curry County State Parks Master Plan (includes: Floras Lake State Park, Cape Blanco State Park, Paradise Point Ocean Wayside (Garrison Beach), Port Orford Heads Wayside, Humbug Mountain State Park, Otter Point Wayside, Cape Sebastian State Park, Port Orford Cedar Forest Wayside, Battle Rock Wayside, Geisel Monument Wayside, Buena Vista Ocean Wayside,)
(o) Hat Rock State Park Master Plan.
(p) Deschutes County State Parks (including Lapine, Tumalo, Cline Falls, and Pilot Butte State Parks)

[ED. NOTE: The Exhibit referred to in the above rule is not printed in the Oregon Administrative Rules Compilation. Copies are available from the adopting agency.]

Stat. Auth.: ORS Ch. 390

Management of State Parks Forests

Policy
736-18-050 The State Parks and Recreation Division shall manage forest resources to provide for the public's enjoyment and to protect the natural resources. The Division shall determine the sensitivity of a forest where management needs are identified, and use the least disruptive practice feasible to accomplish management objectives. The Division shall involve the public in significant forest management programs. In emergencies, the Division may take the appropriate action and follow up with necessary evaluation after the action.

Stat. Auth.: ORS Ch. 390
Hist: PR 12-1986, f. & ef. 7-29-86

Objectives
736-18-060 (1) Protect the natural qualities of sensitive forest resources.
(2) Manage forests to control fire and destructive pests, improve growth and vigor, rehabilitate damaged areas, and create desirable conditions.
(3) Manage forests for safe, attractive, and compatible recreation opportunities.
(4) Revenue generation is not an objective of park forest management, except in areas designated through publicized processes as being surplus to park needs.

Stat. Auth.: ORS Ch. 390
Hist: PR 12-1986, f. & ef. 7-29-86

Planning, Coordination, and Cooperation
736-18-070 The Division shall:

(1) Incorporate forest management in park master plans. For parks without master plans, plans for significant programs shall be prepared and publicized as set forth in these rules.

(2) Make management programs consistent with Forest Practices Act, local comprehensive plans, statewide land use planning goals, and comprehensive outdoor recreation plans to the extent possible.

(3) Coordinate programs with owners or managers of adjacent forest lands to minimize conflict and duplication, when appropriate.

(4) Cooperate with forest research agencies, organizations, and institutions of higher learning by allowing scientific studies, field learning exercises, and demonstrations of practice or activity alternatives.

(5) Consult and contract with state, federal, or local agencies and private firms or organizations to carry out management programs and fire protection in park forests, as appropriate.

Stat. Auth.: ORS Ch. 390
Hist: PR 12-1986, f. & ef. 7-29-86

Definitions
736-18-080 (1) "Division" means the Parks and Recreation Division of the Oregon Department of Transportation.
(2) "Administrator" means the administrator of the Division.
(3) "Forest" means an area characterized by native trees outside developed areas of a park.
(4) "Forest Management" means the application of scientific, economic, and social principles to forests for specified objectives.

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6. "Activities" mean those applications typically associated with new or existing park developments even though the specific action is subject to the Forest Practices Act.

7. "Program" means planned forest management involving activities or practices.

8. "Sensitivity" means the relative potential for scientific, historical, archaeological, ecological, fish and wildlife, aesthetic, or social values of a specific forest to be adversely affected by a practice.

9. "Impact" means the potential for a specific program to cause long-term or cumulative effects on a forest.

10. "Significant" means a situation in which high impact practices affect highly sensitive forests.

11. "Emergency" means unforeseen circumstances that threaten immediate harm to public health and safety, park resources, or other public or private property.

12. "Emergency action" means activities or practices undertaken in response to an emergency.

Stat. Auth.: ORS Ch. 390
Hist.: PR 12-1986, f. & ef. 7-29-86

Determination of Significance

736-18-890 The Division shall determine significance levels by evaluating the sensitivity of forests and potential impacts of practices.

1. Sensitivity: Sensitivity of forests in parks for which there is no master plan shall be rated as high, unless:
   a. The forest has been identified as surplus to park needs by a process that provides public review and opportunity for comment;
   b. The forest has been assessed in the State Parks Natural Resources Inventory and is found not to contain important natural features, rare or endangered species, or potential natural heritage cells; or
   c. The Division's instrument of title to the forest requires certain forms of timber management or reserves timber harvest rights to the grantor.

2. In parks for which master plans have been adopted, sensitivity rating shall depend on the following land use classifications, contained in the master plans:
   a. Pre-1985 Land Use/Forest Management Classifications:
      A. Low Sensitivity: Second-growth forests and residual or previously disturbed mature tree stands in "Secondary Protection Areas", "Major Development Areas", "Limited Development Areas". Areas without deed restrictions that are designated for disposal shall also be rated as having low sensitivity.
   b. High Sensitivity: Forests located in "Primary Protection Areas", and undisturbed forests in "Secondary Protection Areas".

   b. 1985 Land Use Classifications:
      A. Low Sensitivity: Second-growth forest and residual or previously disturbed mature tree stands in "Management Areas", "Development Areas", and "Surplus Areas".
      B. High Sensitivity: Forests located in "Protection Areas", and undisturbed forests in Management Areas.

3. Significance: Forest management programs shall be rated, documented, and public notice given according to the identified level of significance:

   a. Non-significant programs are those which involve low impact in low sensitivity forests. The public shall be notified if the program or situation will cause abnormal closure of facilities or significantly affect public use of the park. In such instances, appropriate news releases and posting of notices will be recommended.

   b. Possibly significant programs are those which involve low impact in high sensitivity forests, or high impact in low sensitivity forests. Upon review, the Administrator will determine the level of significance. If it is determined that the program is non-significant, that decision shall be documented. If it is determined that the program is significant, public notice and opportunity for comment shall be provided.

   c. Significant programs are those which involve high impact in high sensitivity forests. Public notice and opportunity for comment shall be provided as follows:
      A. A notice shall be published at least once a week for two consecutive weeks in a daily newspaper of general circulation in the vicinity of the proposed program, as well as the nearest large city and/or Portland. Written notice shall be sent to affected government agencies, interested members of the public, and adjoining landowners.
      B. The public will have 15 days to request a hearing and 30 days to submit written comment, following the last published notice.

   C. If sufficient requests are received, the Division shall provide notice of public hearing and conduct the hearing in substantial compliance with the procedures set forth in OAR 137-01-015 and 137-01-030.

4. (D) The administrator shall fully consider all written and oral submissions and shall issue a decision, with findings, allowing, modifying, or not allowing the proposed program.

4. Emergency Actions: When an emergency situation is declared the Administrator may authorize immediate action as necessary. Appropriate documentation or evaluation will be done following the action.

Stat. Auth.: ORS Ch. 390
Hist.: PR 12-1986, f. & ef. 7-29-86

(December, 1986)
POLICY STATEMENT

GOAL: Manage the forest resources to foster and preserve the environmental qualities that provide enjoyment, education, and inspiration for the public.

OBJECTIVES:
- Protect the forests from uncontrolled fires, insects, and diseases, and from unlawful trespasses.
- Rehabilitate damaged forests where natural recovery processes are not conducive to park uses.
- Improve forests to assure their longevity and resistance to deterioration.
- Ensure safety of the public from forest hazards, particularly in and around park developments.

POLICIES:
- Master plan and/or forest management plan shall be prepared and adopted for each park. The plans shall include a land and forest classification system that will delineate allowable levels and priorities of forest management activity.
- Intensive forest management may be prescribed under certain combinations of land and forest classification. Such activity shall be planned and executed to achieve the above goal and objectives. All wood products or revenues from forest management activities shall be used for park purposes.
- Prior to their initiation, all forest management projects shall be reviewed by the Park Manager and Regional Supervisor, and approved by the Parks Forester and the Parks Administrator or his Deputy.
Policy Statement

Subject: State Parks Fire Prevention Program and Fire Fighting Procedures

Purpose: To provide guidelines for developing and maintaining a fire prevention program and fire fighting procedures for each state park area to protect the park visitor, park property and facilities, and property of adjacent landowners.

Guidelines:

Regional Park Supervisors and Park Managers are responsible for the protection of each state park area. In carrying out their responsibilities, they will follow these guidelines:

A. Responsibilities

1. Develop and implement fire fighting plans and procedures in conjunction with appropriate federal, state or local fire districts or units.

2. Prepare an effective fire prevention program.

3. Instruct and train all park employees in all aspects of fire prevention and fire fighting.

4. Re-evaluate fire protection requirements during January and February of each year and update individual park plans.

B. Organization

1. Discuss fire prevention plans at all crew conferences and safety meetings.

2. Conduct periodic fire fighting drills.

3. Insure that park personnel are trained to operate radio equipment.

4. In each park, maintain and post a current list of the names and classifications of employees working in the park. Indicate their duties during an emergency.

5. Post emergency procedures in a conspicuous location.
10. Restrict mowing in dry grass areas when humidity is low or it is windy.

D. Distribution of Fire Protection Plans

1. State Park areas - Park Managers
2. Regional Park Supervisors
3. Assistant State Parks Superintendent for Operations
4. Parks Property Supervisor