



WESTWIND

Conservation Plan



OWEB grant number: 206-260
Project/site name: Westwind

Location: 7500 N. Fraser Rd.
Otis, Oregon 97368

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About the Westwind Conservation Plan

This new version of the **Westwind Conservation Plan** synthesizes insights and material from the

- Original approved management plan for Westwind (“**2008 Conservation Plan**”)
- 2013 Westwind Baseline Study (“**Baseline**”)
- 2016 OWEB Guidelines for Approved Management Plans

Key goals in this update from the original 2008 Conservation Plan was to follow the new OWEB guidelines and simplify the plan to allow for easier ongoing implementation, review, editing and tracking. It was composed in a shareable document format that will allow for version control and periodic updates and/or annotations (finalized and approved versions will also be saved as PDF’s and recorded).

Notable changes from the original 2008 Conservation Plan:

- Updated Approach - simplified summary of planning and action process (replaced Conservation Action Planning process articulated in the original plan). Very similar, but more flexible for Westwind to manage.
- WSCAG will be reconstituted as an advisory team which can support/work on priority projects, and can be a resource for Westwind staff and volunteers.
- Monitoring, Mitigation and Study regime - clarification for ongoing monitoring and mitigation.

The Conservation Plan was composed by Westwind staff and board volunteers.



1. Introduction

On September 1, 2006 the nonprofit Westwind Stewardship Group (WSG) acquired 529 acres of the lower Salmon River watershed to conserve the natural values of the land, steward the existing lodging and meeting facilities, and create programming for a diversity of users. The \$3.6 million purchase of the property long known as “Westwind” was achieved with generous grants and support from many sources (individuals, tribes, foundations, and government agencies), as well as

OWEB’s important and entirely mission-aligned purchase of a \$1.5 million Conservation Easement over the entire property.

Located at the confluence of Oregon’s coastal Salmon River with the Pacific Ocean, the Westwind site is a microcosm of the biological diversity characteristic of the Pacific Northwest Coast, encompassing six distinct ecological systems and approximately one mile of shoreline and over three miles of river/estuary front. The Salmon River estuary is recognized at the state level as a ‘Naturally Functioning Estuary’ (statewide Goal 16 of Oregon’s land use program), and the over 9,000 acres encompassing and surround Westwind is designated at the national level as the Cascade Head Scenic Research Area (CHSRA) Act of 1974, and at the international level as a UN-designated Biosphere Reserve. Designation of the Biosphere Reserve status was updated in 2017 with the inclusion of the Cascade Head Marine Reserve (up to 3 miles off the coast).

From its inception in August of 2004, the WSG concluded that long-term stewardship of Westwind would require a comprehensive conservation plan. It created the Westwind Site Conservation Advisory Group (WSCAG) to provide technical assistance in setting and attaining conservation goals and programs for the site. WSCAG then composed the **2008 Westwind Conservation Plan**, which has served for a decade as the official approved management plan (per the Conservation Easement) and a guiding tool for Westwind’s ongoing conservation efforts.

In 2013 the WSG acquired the Camp Westwind program from the YWCA of Greater Portland, and started doing business as just ‘Westwind,’ denoting the organization AND the property. It ran its first Family camp in the fall of 2013, and first summer camp season in 2014. As of 2019, the Westwind Stewardship Group - now ‘Westwind’ - is in its sixth season of running camps for children and families and its thirteenth year owning the site. In addition to its camp programs, Westwind operates a popular cabin rental and food service focused on nonprofits; offers outdoor-focused programs and workshops to the larger public; and conducts its regular operations and maintenance in a manner consistent with the conservation values of the site.

Easement location

The Property consists of approximately 529 acres, located in portions of Sections 22, 23, 25, and 26 of Township 6 South, Range 11 West, Willamette Meridian. Various documents give different acreage figures. The grant application submitted by WSG to OWEB refers to the Property covering 508 acres, and this is the sum of the acreage of the two Property Use Zones described on p. 4 of the Easement. However, the accompanying map (***Location and Access Map 2***) states the total acreage as 529 acres. The **2008 Westwind Conservation Plan** also uses the 529 acre figure. Lincoln County tax lot records list a total of 529.3 acres, so this is the figure used in this report. Actual acreage of the Property undoubtedly varies over time with erosion and accretion of shoreline, especially on the sand spit. One unresolved issue is whether Tillamook County should show land accretion of the north end of the sand spit, which extends into Tillamook County, as a tax lot.

Conservation Values

Summary of OWEB Conservation Easement Values for Westwind*

1. Healthy watershed function, including groundwater recharge and surface water storage;
2. Sitka spruce forest (approximately 210 acres), Floodplain/outwash lowland riparian, linear, wetlands (approximately 10 acres), Lowland riparian woodland and shrubland (approximately 119 acres), Coastal sand dune and spit and the Salmon River Estuary;
3. Native fish and wildlife and their habitat, including but not limited to: Chum Salmon, Coho Salmon, Winter Steelhead, Bald Eagle, Peregrine Falcon, White-Footed Vole, Clouded Salamander, Red-Legged Frog, Southern Torrent Salamander, Western Snowy Plover**, Black Oystercatcher, Savannah Sparrow, Oregon Silverspot Butterfly**, Marine Mammals and rocky intertidal invertebrate assemblages;
4. Surface and Groundwater Quality, including the Salmon River Estuary; and
5. Sustainability Goals: Within the Active Human Use Zone, the facilities and activities will operate under the principles of sustainability.

* Note: Conservation Easement Values indicate priority habitats, acreage and species, but not stream miles.

** Species not currently thought to inhabit property

Summary of permitted and prohibited actions (consistent with and referencing the Conservation Easement and Baseline Inventory Documentation)

The uses of the Property are limited to those consistent with Article XV, Section 4b of the Oregon Constitution, the Conservation Values listed in Section 3 of the Conservation Easement, and the Approved Management Plan as described in Section 5 of the Conservation Easement (i.e., this document). For the purposes of permitted and prohibited actions, the Property is treated as two zones: the "Active Human Use Zone" and the "Conservation Land Area Zone" as described in Landowner Coordination above and shown in Exhibit C of the Conservation Easement. In general, the Property may be used for conservation management, educational and recreational purposes, and as a camp facility for children and adults.

Landowner Coordination

The Westwind Property consists of six tax lots, their numbers and acreages listed in Table 1. The entire Westwind ownership is within the Easement.

Table 1. Westwind Tax lots

Taxlots are listed in order going from the SE to NW portion of the Property. The first six digits of the tax lot represent the Township, Range, and Section #.

<i>Tax lot #</i>	<i>Acres</i>	<i>Note</i>
06-11-25-00-00600-00	40.0	Upland forest area south of entrance/farm
06-11-25-00-00500-00	67.0	Farm area and some upland woods
06-11-26-00-00100-00	88.9	Upland forest to estuary edge
06-11-26-00-00200-00	40.0	Upland forest to estuary edge
06-11-23-00-00400-00	264.4	Includes Main Camp
06-11-22-00-00100-00	29.0	Crescent Cove and adjacent bluffs
Total Acres:	529.3	

The Easement is written to contain two separate zones. Acre totals for each zone below are from the OWEB grant proposal, which used an inaccurate acreage figure of 508 acres. Most likely the Property's additional 21 acres are located within the Conservation Land Area Zone.

1. Conservation Land Area Zone (ca. 422 acres). This acreage contains the majority of the conservation values for which the easement has been established, and is primarily proposed for protection, with some human use of trails and the sand spit. (Actual acreage is likely 443 acres)
2. Active Human Use Zone (ca. 86 acres). This area contains existing structures and experiences year round human use. This area is composed of the main camp facility, the access area from the river to the main camp, the road, and the Fraser Farm.

Title Encumbrances

Two easements are listed in a February 2004 title report for the Property. Both easements are associated with Parcel III in the legal description, that is, tax lots 500 and 600 in section 25. These tax lots include the Fraser Farm and the forested area to the south. Only the Pacificorp easement seems to be of use at the present time.

1. A roadway easement in favor of the United States of America, recorded November 4, 1960, in Book 212, Page 363, Deed Records.
2. An easement for electric power distribution and communication lines, and appurtenances, in favor of PacifiCorp, recorded January 23 2004, as Instrument No. 200400900.

Land use and Landscape context

The Property is located on the central Oregon Coast, within the Pacific Northwest Coast ecoregion. The physical setting is at the mouth of the Salmon River, on the south side of the river opposite Cascade Head. The Property has approximately 1 mile of shoreline along the Pacific Ocean, and 2.7 miles bordering the Salmon River and its estuary. All adjacent land is owned and managed by the US Forest Service, Oregon State Parks (beach), and Lincoln City (as protected Open space).



The Property is located along a NW-SE trending ridgeline that parallels the left bank of the Salmon River. Slopes are typically north- to east-facing, but all aspects are present due to complex topography. The uplands are generally forested with conifer forests. Four small permanent streams have cut ravines as they flow toward the Salmon River, and two of these streams have ponds or wetlands associated with their stream courses. Seven other drainages flow intermittently. Portions of the ocean shoreline consist of very steep, unstable bluffs that rise directly from the beach. The sand spit on the north end of the Property at the mouth of the Salmon River is a unique feature formed from water-transported sand. Elevations on the Property range from sea level to just over 400 ft (120 m).

The Property is located within the Cascade Head Scenic-Research Area (CHSRA). This is a mix of public and private lands designated as the CHSRA in 1974 by Public Law 93-535. The original law and subsequent CHSRA management plan encouraged the transfer of private lands with high natural resource value to the US Forest Service. Following completion of the CHSRA management plan the YWCA sold approximately 200 acres of tidal marsh along the Salmon River to the US Forest Service. The CHSRA management plan governs federal management of adjacent Forest Service lands, and also constrains new uses or modifications of private lands within the CHSRA, which become subject to condemnation by the Forest Service if substantially modified from the 1974 condition. In general, both the Property and adjacent Forest Service lands lie within planning sub areas with management objectives of protecting and maintaining scenic and wildlife values while allowing selective recreation and extensive research-educational activities. In 1980 the Cascade Head Scenic-Research Area (including all of the Westwind site) was designated a United Nations Biosphere Reserve.

Some privately owned land in the area, mostly on the north side of the Salmon River, is used for low density residential land uses. The 1977 Cascade Head Scenic Research Area Management Plan map shows the location of nearby lands used for residential purposes, see http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev7_007112.pdf.

While some land use changes have occurred since 1977, the general pattern today is similar to 1977. Lincoln County zoning maps show most of the Property is zoned as T-C (Timber Conservation), though a portion in the eastern side of Section 26 is zoned as A-C (Agricultural Conservation). Portions of the

southern edge of the Property border or come close to the northern edge of the Lincoln City Urban Growth Boundary (UGB).

History

Ownership History

The site now known as “Westwind” is believed to have been used historically by a coastal tribe called the Nechesne. The property was included within the Siletz Reservation when it was created in 1855. However, none of the SW Oregon tribes that were brought to Siletz settled in the Salmon River area, so the site would have continued to have been utilized as it was prior to reservation establishment.

In 1894, the federal government began allotting reservation lands (including what is now the Westwind Property) to individual tribal members. Over time, as tribal members died or otherwise disposed of their allotted property, many lands came into private ownership. A Portlander named Wallace McCamant began acquiring parcels within what is now the Westwind Property in 1911 (Beckham 1975). Over time he consolidated his holdings, which in 1936 became the 380 acres initially purchased by the YWCA of Portland for Camp Westwind, to be used as a summer camp for girls. Except for three years in the 1940s when Westwind was used by army soldiers on furlough, this use, with the later inclusion of boys, has continued for the past 78 years.

Another parcel was purchased by the YWCA in 1937 bringing the total acreage to over 500. At its largest, following the purchase of the Fraser Farm in the mid-1970s, the camp was comprised of 703 acres. The YWCA sold 200 acres within the Salmon River estuary to the Forest Service in 1979, bringing the total acreage back to about 500+ acres, where it has remained.

In 2004 a non-profit organization, the Westwind Stewardship Group (WSG), entered into negotiations with the YWCA with the goal of purchasing Westwind to assure its ongoing protection and use as a youth camp. Fundraising and discussions continued through 2004 and 2005 and with the help of the Oregon Watershed Enhancement Board and other major donors, the WSG purchased Westwind in 2006. At the same time, the WSG and the YWCA entered into an Exclusive Use Agreement that allowed the YWCA to continue running “YWCA Camp Westwind” on the Westwind site (while paying a negotiated site fee) during the summers. WSG was responsible for the maintenance, conservation and operation of the Westwind site. YWCA Camp Westwind underwent a name change to “Camp Westwind” when WSG assumed ownership of the summer camp program in 2013; WSG now commonly does business as just ‘Westwind.’

Native American History

Prior to white settlement, coastal estuaries and adjacent uplands provided a diversity of animal and plant resources to support Native American communities. The diversity of habitats – shore, estuary, forest, and prairie – each provided resources for food, shelter, and art. As mentioned in the 2013 Baseline Report, Zobel (2002) provided a detailed inventory of the culturally important plants and animals, however, he noticed an absence or limited abundance of four important plant species – camas, cedar, hazel, and yew – which may have made the Cascade Head/Salmon River area less desirable for year-round occupancy than other coastal areas. On the other hand, there are maps showing village locations in the original Siletz Reservation including a cluster at what is now Fraser Farm, and the USFS has acknowledged other verified village sites on the north side of the Salmon River. Much of the Westwind property and the surrounding area was inhabited year-round and

impacted by Native Americans, including burning of grasslands and forest understory, creation of large shell/bone middens, trails, campsites (with hearths), and ruins of pithouses.

Post Euro American Settlement

Few details are known about the conditions of the Property prior to YWCA acquisition. Presumably some of the Property was logged, though other portions, which were described as burned over at the time of the 1872 GLO survey, would probably not have sufficiently mature forest cover to have been logged prior to the initial YWCA purchase 64 years later. There were also ecological changes due to agricultural activity, particularly grazing of domestic livestock, on the Fraser Farm and in the adjacent Salmon River tidal marsh. Invasive grasses and the draining/diking of parts of the estuary had significantly affected the landscape.

Past Site Alterations and Disturbances

Sand Dunes

The most impactful site alterations to the beach area occurred in the 1940's and 50's, when introduced European Beach Grass and Lodgepole Pine (locally called 'Shorepine') was planted on the dunes for sand retention. The resulting Dune Forest (as it is called at Westwind) and sand dunes (largely overgrown with invasive beach grass) represents a loss of the native dune grass dominant landscape but a growth of new forest on the previous open-field sand spit. In addition to the Shorepine, native Sitka Spruce, Douglas Fir, Red Alder and Evergreen Huckleberry have colonized the Dune forest, drawing in ecological components of the adjacent temperate rainforest understory.

Managed Forest areas

Historic aerial photos provide the first detailed information on post-settlement land use. For example, a 1953 aerial photo (can be found in the Baseline) shows that much of the SE portion of Westwind, south, west, and northwest of Fraser Farm, had been recently logged. This includes much of the Property that was recorded as mature forest in the 1872 surveys. Areas that were described as burned over in 1872 may have only been selectively logged, if at all, due to the generally young age of the timber prior to YWCA acquisition in 1936. No commercial logging has been conducted under WSG ownership.

Farm

The most recently acquired portion of the Property, the former Fraser Farm, includes areas that were cleared for farming or pasture after settlement. Some alterations of the estuary lands to improve their use for grazing may have been done, but these lands are now largely outside the Westwind ownership boundary.

Horseback riding program impact

Horses and/or mules were at Camp Westwind from 1937 through 2010. The Fraser Family had multiple barns and grazed cattle at the farm and on the estuary, but once the camp acquired the property in the 1960's it appears only horses were on the property thereafter. Impacts from horseback riding are evident in the Dune Forest, including up Ranch Hill and around the old stables (now called "Tillicum"), and amount to incised trails (some still in use for foot traffic, some retired) and broad dispersal of invasive grasses (likely from horse feed). Horses have not been at Westwind since 2011.

2. Purpose and Goals

Purpose and Goal Statements

Westwind's main purpose for acquiring the site was to protect it in perpetuity, provide facilities and support for summer Camp Westwind, and to develop educational programs that promote sustainability (this is also paraphrasing the purpose stated in Westwind's 2004 application for non-profit status).

The main conservation goal stemming from the purchase and subsequent easement is to protect the conservation values of the site (see above). The **2008 Westwind Conservation Plan** also states:



"The purpose of the conservation plan is threefold:

1. to help the Westwind Stewardship Group (WSG) better understand the conservation assets of the property;
2. to summarize the current status (health) of the ecological systems occurring on the property;
3. and to recommend conservation management strategies to protect, maintain, and restore these assets into the future."

Purpose of the Conservation Easement

According to the recorded conservation easement, dated 31 August 2006, the purpose of the easement is to ensure that the property will continue to be used for purposes specified under Article XV, Section 4b of the Oregon Constitution, in satisfaction of the requirements of ORS 541.375(9), to protect the conservation values listed in the easement. The Easement acknowledges that "low intensity, resident camp facilities have been managed on the Property for over 70 years in a manner consistent with preserving the unique ecological attributes that exist on the Property today." The easement is "intended to protect and preserve the identified conservation values in perpetuity in the context of ongoing use of the Property for educational and other camp-related purposes". To facilitate the management of the Easement under these circumstances, the Easement defines two "Property Use Zones." The "Active Human Use Zone" consists of 86 acres, containing existing structures and other areas of the Property that experience year-round human use. The "Conservation Land Area Zone" is 422+ acres, and is the portion of the Property primarily proposed for protection, with some human use of trails and the sand spit.

Approach

Westwind has devised an approach to maintaining the Conservation Values that relies on an annual review of threats (assessed by WSCAG and through Westwind's ongoing monitoring efforts). This 'Threat & Progress Assessment' looks at conditions detailed in the Priority Management Strategies, and is summarized in the **Threat Assessment Summary** found in the Appendix. This approach was developed in Westwind's initial Conservation Plan, derived from the Nature Conservancy's Conservation Action Planning (CAP) process. This new approach is a simplified version. Following a Threat

Assessment, attendant management strategies - both operational activities led by Westwind, as well as targeted actions conducted by agencies and other non-profit partners - will be followed. Westwind approves its budget at year's end, and the threat assessment will be concluded, with attendant recommendations, before then.

This **'Threat & Progress Assessment Cycle' approach** to conservation planning can be summarized by the following diagram:



1. **WSCAG** - The Westwind Site Conservation Advisory Group (WSCAG) includes scientists and conservation professionals. Westwind will consult WSCAG to inform management strategies and actions, develop monitoring plans, support grant writing, and assist in project management, threat assessments, and composition of *Westwind Conservation Reports* among other possible activities.

2. **Work Plan** - Westwind will complete an annual work plan outlining priority Management strategies (see Priority Management Strategies and Actions below for a starting list), integrating these actions into its annual budgeting. Projects that are specifically called out in the Work Plan will have clear goals and timelines, with attendant funding/resources spelled out clearly.
3. **Ongoing Monitoring of Threats & Indicators and Education** - Westwind will commit staff time to informal monitoring of threats and indicators, coupled with other formal monitoring/study of habitats and other indicators of ecological health. Westwind will continue educating campers, students and guests about threats to the landscape (e.g. most wanted list for invasives), how to live sustainably (including how to achieve minimal landfill waste, and energy and water conservation), and general environmental literacy to better understand the complexity and context of Westwind conservation work.

Time period

This plan addresses management strategies and actions over the next 5-10 years.



3. Inventory and Analysis

The **2013 Baseline Documentation Report** (recorded with OWEB) established a clear inventory of overall ecological zones and was documented using control point photographs. Since then there was an update provided by Westwind in 2016 (“Westwind Conservation Plan_Progress and Status_Five Year Update_2011-16”), as well as a an OWEB monitoring report conducted by John Sanchez in 2017. Every year since 2014, Westwind has conducted a control point photo survey with volunteer help.

Notable Updates: Since the 2013 Baseline Documentation Report, site conditions have essentially remained the same, with a few out buildings (sheds) added, a new deck was built for the main lodge, and a solar power plant was put on the Tillicum Barn. In the near future, Westwind intends to renovate cabins and reappropriate an old garage into an Environmental Education building, and complete segments outlined in its Trail Improvement Plan.



4. Desired Future Conditions

Westwind seeks to maintain OWEB's originally designated conservation values as a desired future condition (listed above).

In ten years Westwind should look as it does now, and similarly thereafter, except for disturbance and change brought by natural phenomena, events out of Westwind's control (major weather events, climate change, fire, earthquake, tsunamis, etc.), and adequate restoration of natural systems in the dune areas and upland prairie (Iris Meadow). As any of the natural phenomena or other threats manifest, Westwind will adopt a specific management strategy to address the threat.



On a general level, Westwind aspires to celebrate notable improvements in ten years (by 2029), including:

1. Widespread invasive species removal and threat reduction:
 - a. Comprehensive removal of the following invasive shrubs and vines, with no discernable coverage by any of the following species:
 - i. American holly (*Ilex opaca*)
 - ii. Scotch broom (*Cytisus scoparius*)
 - iii. English ivy (*Hedera helix*)
 - iv. Himalayan blackberry (*Rubus armeniacus*)
 - b. Comprehensive reduction of the following invasive grasses and forbs, with strategic reduction of coverage matched with encouraged growth/restoration of native grasses/forbs:
 - i. European beach grass (*Ammophila arenaria*)
 - ii. Stinky bob (*Geranium robertianum*)
 - iii. Other invasive field grasses (at farm, Iris Meadow, around Tillicum and camp)
2. Reduced motorized vehicle traffic (to, from, and on Westwind property); and
3. No detectable adverse effects from Westwind operations on biodiversity or water systems.

In the meantime, Westwind will continue to monitor for specific threats and conduct management actions to mitigate or resolve these threats.

Outline of Specific Threats

In 2006-2007, threats were assessed across a range of five habitats at Westwind, and the 2013 Baseline re-affirms the threat assessment from the original conservation plan, summarized in the **Threat Assessment Summary (2008)** (in Appendix).

The 2013 Baseline adds: "The Site Conservation Plan [original 2008 Plan] includes a detailed analysis of threats for each ecological system. The summary table from the SCP is reproduced here as

Table 4. Fourteen threats were identified but most received a low overall threat rank. Invasive species were the only threat ranked 'very high'; this threat is High or Very High for the Sand Spit, Prairie, and Estuarine systems. At the present time the Spruce forest has very few invasive species, but given the high visitation numbers it is likely that problematic species such as false brome will show up eventually. I did observe (and remove a few plants of herb-Robert, *Geranium robertianum* at the entrance gate); this species could become abundant in the forest understory if it were to establish. Grazing and Ranching, Roads, and Human-Powered Recreation were the other threats that were ranked as High or Medium. These latter three threats are mostly applicable to the portion of the site within the 'Active Human Use' zone. Sand Spit and Prairie were the only ecological systems that received a threat rating of 'High' or 'Very High' due to invasive species and altered successional processes."

This updated plan accepts the 2008 threat summary as a convenient framework and baseline with some clarifications, and Westwind/WSCAG will oversee its evolution moving forward.



5. Priority Management Strategies

Westwind Priority Management Strategies are drawn from the original 2008 Conservation Plan, with a few additions(+) and removals (-), and broken into Priority Projects and Routines:

Priority Projects (see Time Frames below)

1. Deep clean beach of microplastics, and routines to continue cleaning each year
2. Establish a regular survey program for invasive species and manage for new, specific threats; determine removal or reduction plans as appropriate.
3. Restore native plant communities on Iris Meadow (upland prairie area south of Crescent Cove) beginning with a request for technical assistance to develop a strategy, techniques, and timeline.
4. Begin with technical assistance to find the best approach to restore native moving sand plant communities on the sand spit by removing/controlling European beachgrass, shrubs, and shore pine.

Priority Routines

1. Ensure that activities in the human-use corridors, especially around the Camp facilities, maintain the integrity of the associated targets.
2. Educate the general public regarding responsible use of the beach.
3. Upgrade, decommission, or relocate trails as needed, especially around the campsite, to minimize erosion, instability, and exposure of root systems.
4. Cooperate with estuary-wide partners to control nutria.
5. Participate in USDA Forest Service estuary restoration planning and explore restoration opportunities to improve estuarine hydrology and connectivity
6. Ensure that the Camp and farm septic systems are properly maintained and functioning.
7. Participate in/support watershed community efforts to identify and resolve sources of contamination up river.
8. Monitor water quality of swimming areas in conjunction with the watershed council and DEQ
9. Assess stability of old cat roads in the Westwind drainages, and identify restoration priorities to protect forest and freshwater targets.

These management strategies are reflected below in the **Implementation Plan and Schedule** with clarity around timeframe, responsible parties, and funding strategies. The three priority projects are of equal importance; the priority routines are in order of relative importance

Priority projects (such as removing invasive dune grass or promoting headland prairie habitat) spring from repeated threat assessments, including the 2013 Baseline Report, and are very high profile restoration projects. Priority routines similarly reflect feedback from repeated assessments.

6. Implementation Plan and Schedule

Westwind will address the priority management strategies through the following implementation plan and schedule. The plan distinguishes two types of strategic priorities, 'Projects' and 'Routines.' These strategies are further defined by Management Actions, Timeframe, Responsible Parties & Lead(WSCAG, Westwind Staff, other), and potential Funding Source.

Priority Projects					
	Management Strategy	Management Actions	Timeframe	Responsible Parties (Lead: Westwind Board)	Funding Source
1	Deep clean beach of microplastics, and routines to continue cleaning each year	Pilot program with campers/volunteers using sift nets (we have) to filter out plastics; Pursue additional technical assistance grant to continue clean-up.	Start 2019; complete end of winter 2021 (2 years) 3 years = 1 year for pilot program (planned for 2019); 1 year, 2 years of follow up monitoring/maintenance	SOLVE, Coastwatch, Oregon State Parks and other willing agencies	OWEB, Oregon State Parks, SOLVE, Westwind operational funds
2	Create an Invasive Plant Management Plan	Using existing watch list of invasive plants, conduct a series of ground truthing surveys of the property based on habitat. Create plan for seasonal control of invasives, and routine monitoring for invasives.	Start 2020; complete end of Winter 2020 (1 year).	Westwind, WSCAG, Institute for Applied Ecology	OWEB, grants, Westwind operational funds
3	Restore native plant communities on Iris Meadow (upland prairie area south of Crescent Cove)	Pursue planning grant to evaluate and design a dune restoration project	Start planning 2019 (Technical Assistance Grant); start in 2020, complete by end of 2023 (3-4 years)	Westwind, WSCAG, Institute for Applied Ecology	OWEB, grants, Westwind operational funds
4	Restore native plant communities on the sand spit by removing/controlling European beachgrass and reducing dune forest.	Pursue planning grant to evaluate and design a dune restoration project	Start planning 2020 (Technical Assistance Grant); start in 2021, complete by end of 2024 (3-4 years)	Westwind, WSCAG, Institute for Applied Ecology, Oregon State Parks, and other willing agencies	OWEB, Oregon State Parks, other grants, Westwind operational funds

The Projects focus on the two most threatened areas - the beach and the upland meadow. Westwind will work with a range of conservation partners to implement these strategies, and has established a priority ranking (# column) to denote order, but all three of these projects could and should start ASAP. Additional threats can be assessed by WSCAG, with new or adjusted management strategies to address those threats.



Checker Mallow found in Iris Meadow

We have also established priority 'Routines' based on the conservation management priorities:

Priority Routines					
#	Management Strategy	Management Actions	Frequency	Responsible Parties	Funding Source
1	Establish a regular survey program for invasive species (following Priority Management Project #2) and monitor for new threats; determine removal or reduction plans as appropriate	Managed through Annual Threat Assessment; removal occur as part of regular Maintenance Actions	Annual	Westwind, with hired experts	Grants, Westwind operational funds
2	Ensure that activities in the human-use corridors, especially around the Camp facilities, maintain the integrity of the associated targets.	Managed through Annual Threat Assessment	Annual	Westwind	Westwind operational funds
3	Educate the general public regarding responsible use of the beach.	Part of operations (rental and camp programs)	Annual	Westwind	Westwind operational funds
4	Upgrade, decommission, or relocate trails as needed, especially around the campsite, to minimize erosion, instability, and exposure of root systems.	Managed and updated through Trail Improvement Plan	Every 3 years	Westwind, Northwest Youth Corps	Grants, Westwind operational funds
5	Cooperate with estuary-wide partners to control nutria.	Managed through Annual Threat Assessment	Annual	Community Partners (Salmon Drift Creek Watershed Council; ODFW, etc.)	Grants
6	Participate in USDA Forest Service estuary restoration planning and explore restoration opportunities to improve estuarine hydrology and connectivity	Maintain regular communication with USFS	Annual	Westwind, in collaboration with USFS	Agency funds
7	Ensure that the Camp and farm septic systems are properly maintained and functioning.	Septic systems monitored by Lincoln County according to state health code	Annual	Westwind and Lincoln County Health Department	Westwind operational funds
8	Participate in/support watershed community efforts to identify and resolve sources of contamination up river.	Maintain regular communication with USFS and Salmon Drift Creek Watershed Council	Annual	Community Partners (Salmon Drift Creek Watershed Council; ODFW, etc.)	Grants
9	Monitor water quality of swimming areas in conjunction with the watershed council and DEQ	Coordinate water quality efforts (as needed), including providing access, to supporting agencies doing ongoing water quality measurements (Surfrider and Salmon Drift Creek Watershed Council to name two).	Annual	Westwind with USFS, ODOT, and ODFW	Agency funds
10	Assess stability of old cat roads in the Westwind drainages, and identify restoration priorities to protect forest and freshwater targets.	Part of Maintenance Actions	Annual	Westwind, with hired experts	Grants, Westwind operational funds

This implementation plan is effectively underway in terms of many of the routines, but planning for the restoration projects officially starts in 2019 with the reconstitution of WSCAG.

7. Monitoring, Maintenance and Adaptive Management

Monitoring areas

Westwind will continue to monitor and maintain the site's primary ecosystems:

1. Sand Dune/ Spit
2. Spruce-Hemlock Forest
3. Freshwater Lakes, Streams, Ponds
4. Upland Meadow/ Prairie
5. Estuarine Ecotone
6. Nearshore Marine

Monitoring Protocols

- Conduct a biannual photographic assessment based on the control points established in the 2013 Baseline, with attendant annotations made by WSCAG. Use any noticeable changes to inform Threat Assessment
- WSCAG will conduct an annual threat assessment based on input from field study/monitoring partners (below) and observations by WSCAG, staff and other volunteers, and will update the Threat Assessment Summary accordingly.
- Westwind will work with partner agencies and other non-profits to facilitate field studies and monitoring of targeted habitats. Protocols for each will be determined by the research group/project. Recent examples include:
 - ODFW's annual Bat survey at the Beaver Pond using a hypersonic microphone and pattern analysis to determine species presence (noting that six different species of bats have been detected each year the study has been conducted). Time of year is usually in mid-summer.
 - Oregon State University's (OSU) annual rodent survey of the Westwind farm field (and surrounding locations outside the Westwind property), using a plot analysis with live-catch traps. Time of year is usually in mid-summer.
 - Institute for Applied Ecology periodically visits Iris Meadow to find rare upland prairie species, and documents general presence of rare grasses and forbs.
 - Career Tech High School's drone crew will conduct an aerial survey and site mapping for vegetative coverage analysis and monitoring (using GIS).
- Monitoring data will be used to inform annual work plans, addressing either restoration targets or mitigating operational actions, and to complete the annual Threat Assessment.

Maintenance Actions

Maintenance actions will be implemented as needed based on information gathered by staff, volunteers, partners, and WSCAG. Primary maintenance actions include:

1. keeping culverts clean,
2. removing invasives,
3. maintaining road and trails to mitigate erosion
4. assess/monitor stability of old cat roads in the Westwind drainages, and identify restoration priorities to protect forest and freshwater targets.
5. maintain Native Plant Nursery and outplant as needed (on site, adjacent to Westwind on USFS land, or elsewhere in the Salmon River watershed)

6. cooperate with estuary-wide partners to control nutria.
7. students with Career Tech High School work on conservation projects such as upkeep of Native Plant nursery, invasives removal, trail/erosion mitigation, and debris/trash removal from beach and estuary.

Partners

Westwind currently works with an array of agencies and nonprofits, and ongoing monitoring and maintenance may involve the following non-profits and agencies:

- Bureau of Land Management (BLM)
- Community Services Consortium (Career Tech High School)
- Institute for Applied Ecology
- Local governments (Lincoln & Tillamook Counties; Lincoln City)
- Northwest Youth Corps (NYC)
- Oregon Department of Fish and Wildlife (ODFW)
- Oregon Department of Transportation (ODOT)
- Oregon Shores Conservation Coalition
- Oregon State University
- Oregon Watershed Enhancement Board (OWEB)
- Salmon Drift Creek Watershed Council
- Siuslaw National Forest (USFS)
- Surfrider Society
- The Nature Conservancy



8. Plan Updates

While the plan has long-term targets and implications, and is intended to serve Westwind for its next 20 years, its utility is tied to the promise of its application at the daily operational level as well as to near-term, seasonal, and annual project levels. We do not intend for it to sit on a shelf.

Starting in 2019, Westwind will provide additional staff time and resources for ongoing coordination of conservation efforts at and adjacent to Westwind, including facilitation of WSCAG activities. Per the 2006 easement, Westwind will also produce a five year report and plan update in 2021 (adhering to the original easement date schedule).



9. Community Involvement and/or Educational Opportunities

Westwind works broadly with schools, universities, other nonprofits and government agencies to create both community involvement and education opportunities.



Current efforts

- Host annual Welcome the Salmon Home event in September, highlighting local conservation efforts and natural history lessons around Salmon Cycle.
- Host two volunteer Stewardship Weekends (Spring and Fall) focused on site maintenance and conservation
- Host three student crews (7-10 students each) with local charter vocational high school (Career Tech High School), connecting local students to ongoing Westwind conservation projects and issues.
- Creating new Microplastics removal program for summer campers, Outdoor School, and other rental groups.
- Strengthen Art and Nature programming for summer Camp (especially Family Camps) through greater involvement of local/regional experts in staff training.
- Align actions with Strategic Plan objective to “Ensure stewardship education for all Westwind annual visitors (campers, renters, volunteers, staff).
- Continue improvements to Tillicum to help improve nature study and conservation education at Westwind, including completion of the solar wall (educational information that frames the already installed controllers for the now completed Westwind solar array); painting of a salmon cycle mural, and purchase of water quality testing equipment.

Longer term efforts (next 5 years)

- Pursue purchase of Westwind Landing property (2015 N Three Rocks Rd) to bring wetland, upland, and estuary shoreline restoration and conservation opportunities along with parking relief. (see appendices)
- Expand beyond two Stewardship Weekends to include conservation focus monitoring and maintenance weekends (Control Point photography, invasives hunt, bird watch, bioblitz, etc.)
- Connect user groups to Westwind’s ongoing iNaturalist inventory, and allow them to add observations (photos)
- Create two new arts & science programs that further leverage environmental educational strengths of the site (Mushroom Camp, Bird Camp, etc.)
- Augmented summer camp programming around estuary, river, and near shore exploration.
- Guided ferry and canoe tours for other nonprofits, private groups, and Westwind staff, volunteers and campers.
- Working closely with the USFS to manage its new Interpretive Site at Hwy 101 (at the road entrance to Westwind); currently supporting maintenance and invasives removal, but will host nature hikes and volunteer restoration projects at site as well.

Appendices

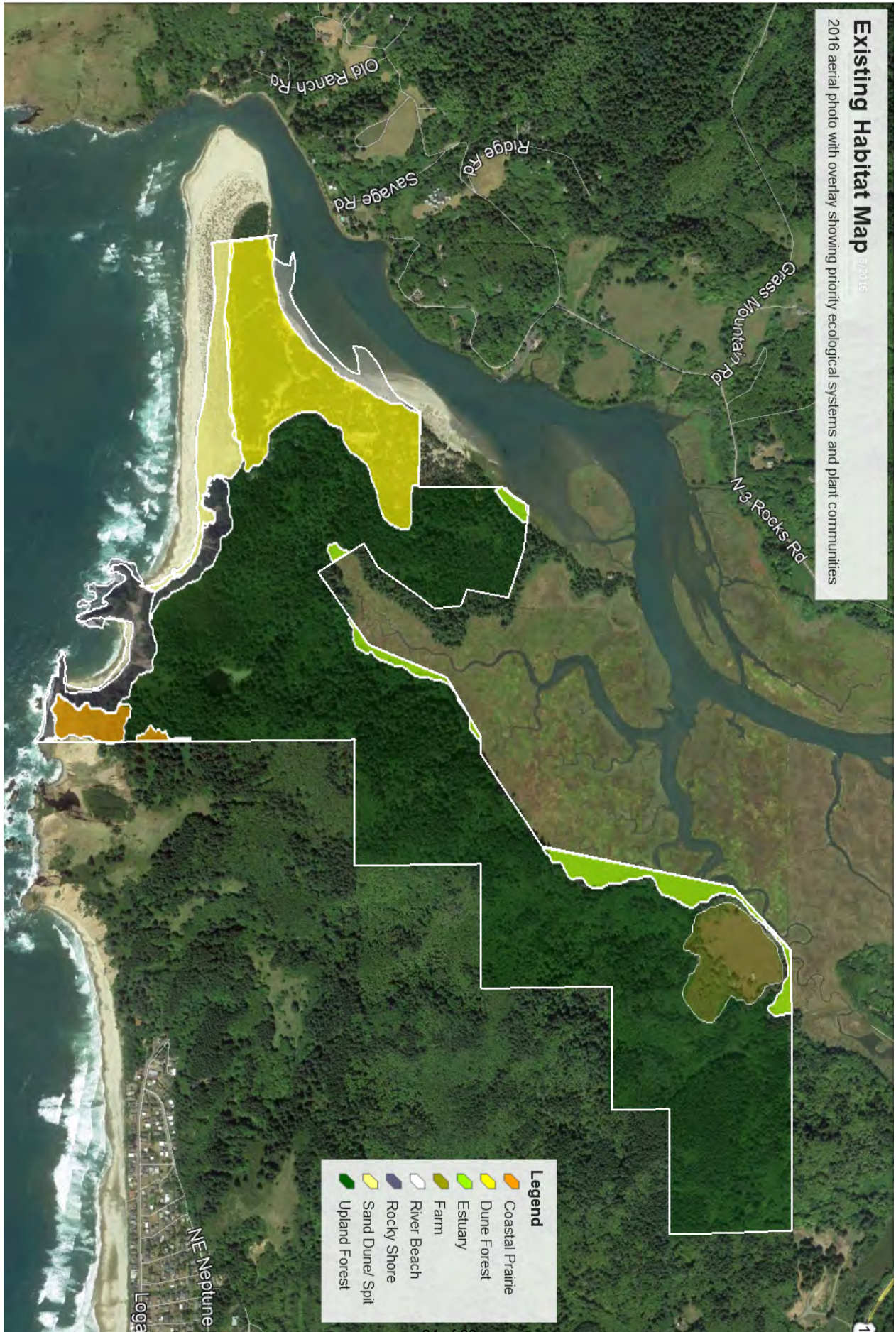
- Location and Access Map
- Existing Habitat Map
- Restoration Map
- Monitoring Map
- Conservation & Human Use Zone Map (2008)
- Westwind Trail Map (2016)
- Conservation Targets (2008)
- Summary of Threats from 2008 Conservation Plan
- Fire Plan
- Trail Improvement Plan
- Westwind Landing Proposal
- Westwind 2018-2020 Strategic Plan





Existing Habitat Map

Map shows existing ecosystems/land use at Westwind.



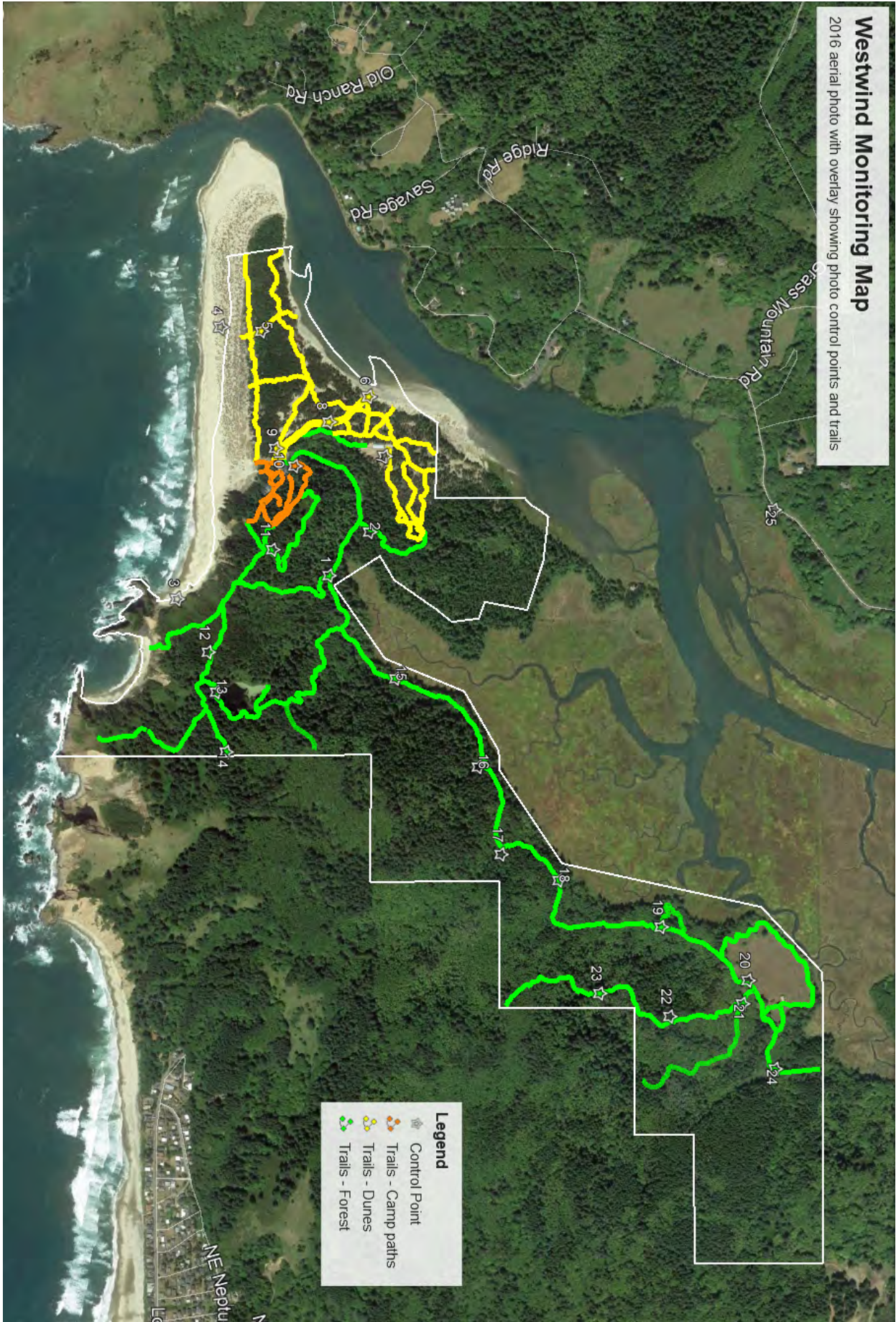
Restoration Map

Map shows extent of Westwind property boundary, and the general landscape it intends to conserve/restore.



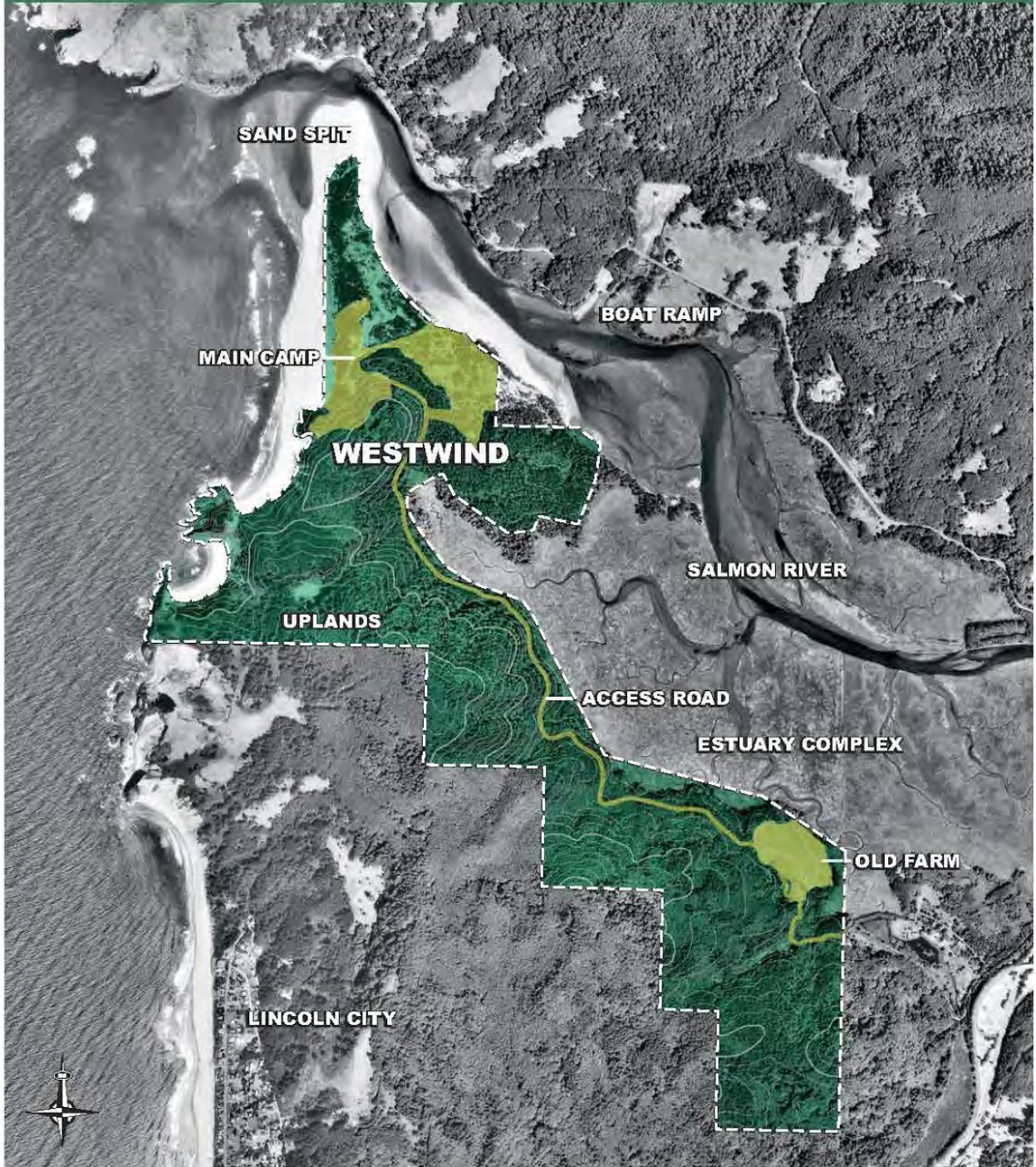
Monitoring Map


Map depicts locations of photo points and access trails for monitoring.




Conservation & Human Use Zone Map (2008)

Westwind Site: 529 Acres - Conservation & Human Use Zone Map



 Active Human Use Corridors
Approximately 67 Acres

 Land in Conservation with Occasional
Human Visitation.
Approximately 462 Acres

Westwind Trail Map (2016)



Westwind is a 529 acre camp, farm and wilderness area set in the middle of the Cascade Head UN Biosphere Reserve in Oregon, with over a mile of ocean front, and bordering 3 miles of the Salmon River estuary. Westwind's mission is to conserve the Westwind site in perpetuity; foster life-changing outdoor experiences for all children, families and groups; and promote environmental stewardship as a basis for sustainable living.

Westwind offers summer camps for youth and families, workshops and other educational programs, and hosts over 5,000 people a year. To learn more visit www.westwind.org.



Scale: 1:24 Kilometers / 1:14 Miles

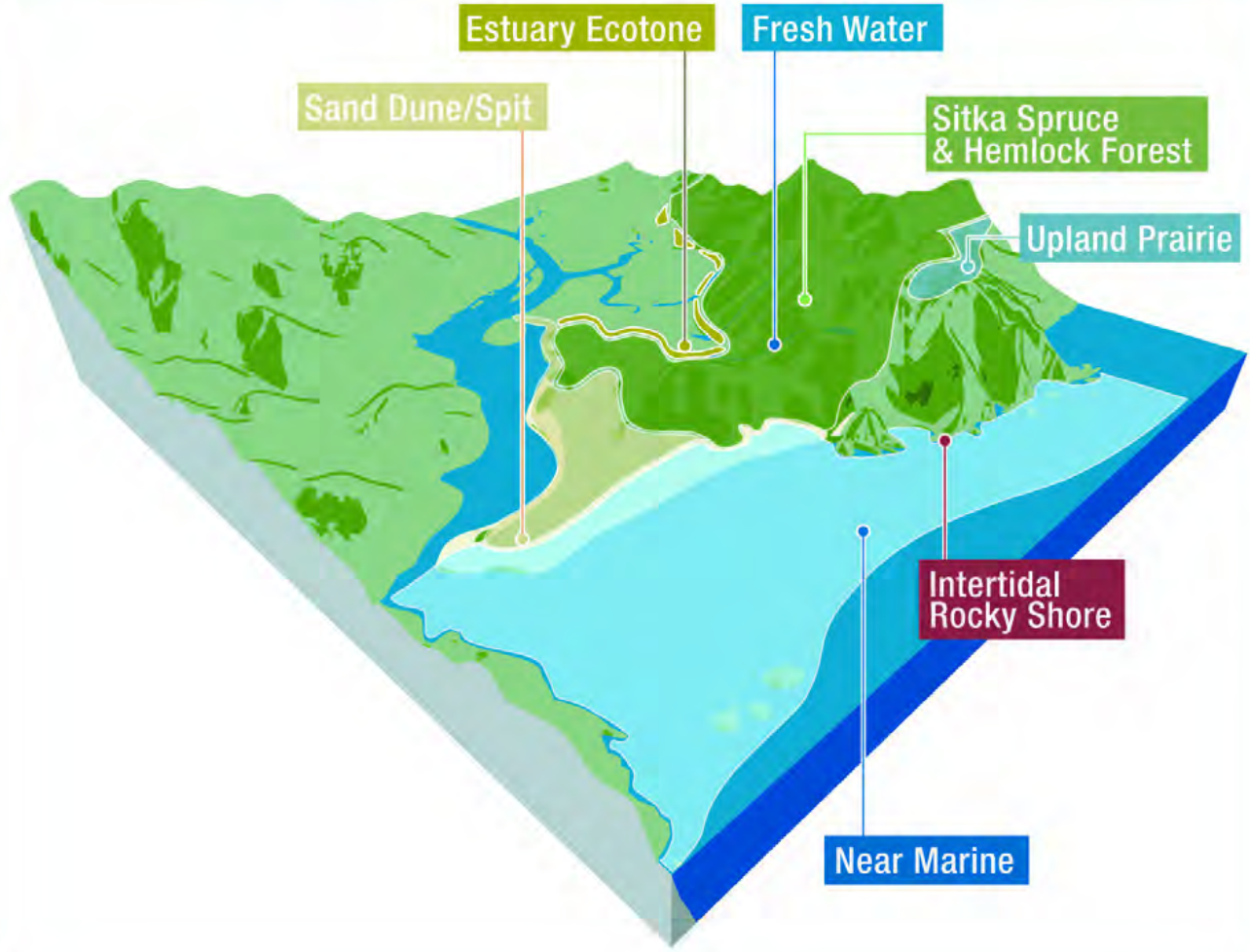
Scale: 0 to 1.5 Miles

Legend:

- Westwind Boundary
- US Forest Service Land
- Nature Conservancy Land
- Lincoln City Open Space
- Marine Reserve
- CHSR Southern Boundary
- Major Path
- Hiking Trail
- Primitive Trail (Permission Only)
- Ferry & Camp Crossing
- Road

Notes: Contouring is done by Maps for Good. Data on this map is derived from various sources. Some boundaries are approximate. Westwind is owned and operated by Westwind. All other land is owned by the respective landowner. © 2016 Westwind. All rights reserved.

Focal Conservation Targets at Westwind



Summary of Threats from 2008 Conservation Plan							
Threats Across Systems	Sand Dune/ Spit	Spruce-Hemlock Forest	Freshwater Lakes, Streams, Ponds	Upland Meadow/ Prairie	Estuarine Ecotone	Nearshore Marine	Overall Threat Rank
Invasive Species	Very High	Low	Low	Very High	High	–	Very High
Grazing and Ranching	–	–	–	Very High	Low	–	High
Roads	–	Low	High	–	Low	–	Medium
Human-Powered Recreation	Medium	–	Low	–	Low	Medium	Medium
Altered Hydrologic Regime - Groundwater Pumping	–	Low	Medium	–	Low	–	Low
Horses (domestic animals)	Medium	–	Low	–	–	Low	Low
Motorized Vehicle Use for Management & Recreation	Medium	–	–	–	–	Low	Low
Natural System Modifications - rip rap	Medium	–	–	–	–	Low	Low
Chemicals and Toxins	–	–	–	Medium	–	Low	Low
Nutrient Loads - Inadequate Sepic Systems	–	–	–	–	–	Medium	Low
Altered Fire Regime	–	–	–	Medium	–	–	Low
Natural System Modifications - Historic Diking	–	–	–	–	Medium	–	Low
Logging	–	Low	Low	–	Low	–	Low
Gathering of Firewood	–	–	–	–	–	Low	Low
Overall System Threat	High	Low	Medium	Very High	Medium	Medium	High