

VISION PLAN

for the
Necanicum Estuary Natural History Park

City of Seaside, Oregon

April 2010



prepared for

The Citizens of Seaside, Oregon

by

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ARCHITECTS
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PLANNERS

with assistance from

Seaside Parks Committee

Sunset Empire Parks & Recreation District

North Coast Land Conservancy

Seaside Museum and Historical Society

Necanicum Watershed Council

Clatsop-Nehalem Confederated Tribes

Seaside Public Schools

Seaside Chamber of Commerce

and others



This place, an edge of sorts, awakens us to our biological inheritance, and we become viscerally, sensually invested in our surroundings and their ability to sustain us.

– Amy Irvine, 2010

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INTRODUCTION



Alder forest above Seaside

The Necanicum Estuary Natural History Park will be the gateway to Seaside and the North Oregon coastal environment. Through celebrating and improving access to the estuary, restoring estuarine and riparian habitat, and interpreting the cultural history of the estuary, the park provides an opportunity for Seaside to define its identity as a city built on a foundation of deep respect for the natural coastal environment.

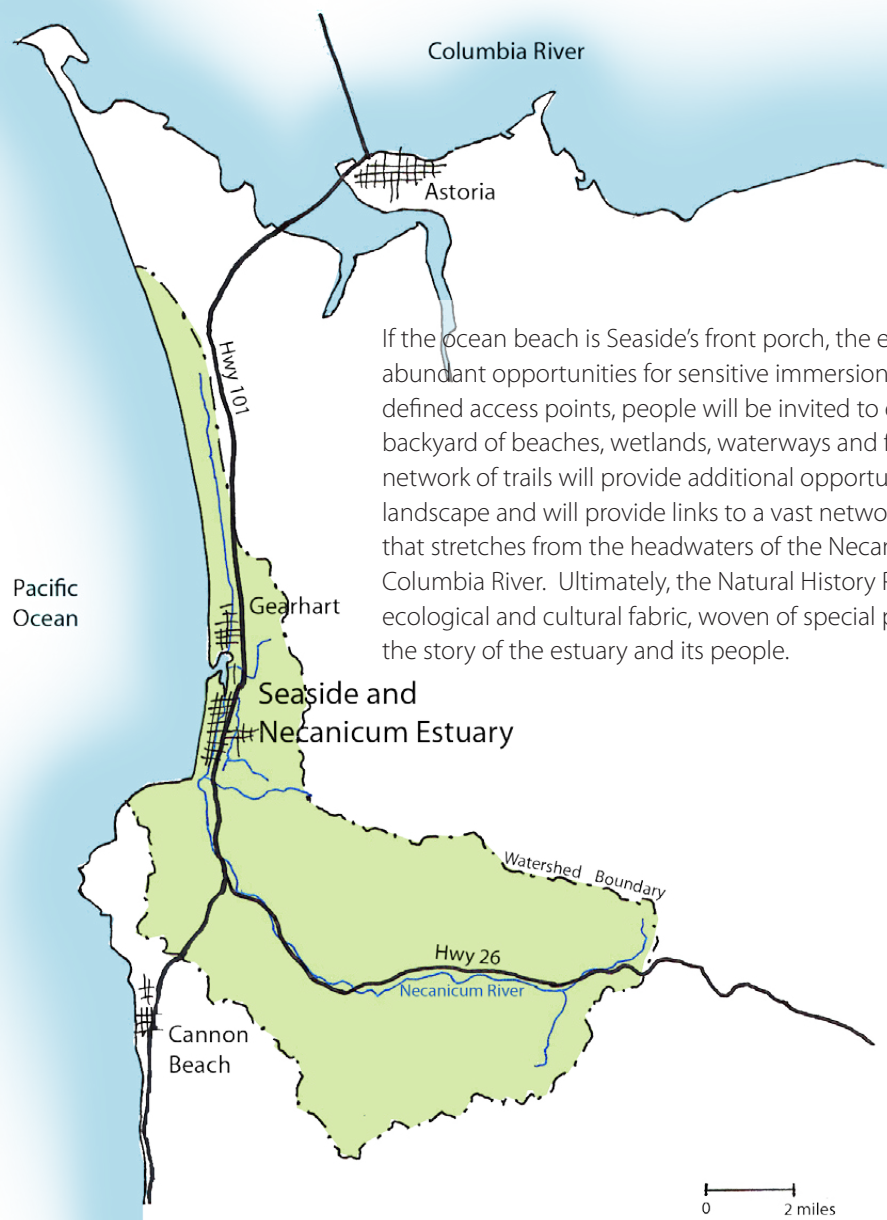
Over the last century, day trippers, overnight visitors and residents have frequented Seaside's promenade and beaches, drawn to an easy-going and scenic coastal lifestyle. Increasingly, as Seaside's population and tourism has grown, people have been exploring the natural environment of the adjacent estuary, its contributing rivers, tributaries and the surrounding forests. The development of a city-wide natural history park must achieve a delicate balance between enhancing public access to the estuary and protecting those critical ecological resources on which the health of people and all other species depend. The Necanicum Estuary Natural History Park can be the gateway through which visitors and residents alike are invited to become a positive force in celebrating and enhancing the health of the estuary.

VISION: *The Seaside Community, using an identified network of land and water resources, will establish a Necanicum Estuary Natural History Park that will help maintain ecological functions, provide appropriate public access, and support public engagement in the context of the North Coast Region and its cultural history.*



Necanicum River in Seaside

As envisioned, the Necanicum Estuary Natural History Park will introduce local residents to the diversity and dynamic nature of their home landscape, while also serving as an ideal place to host visitors interested in the natural environment. People will learn of the powerful coast-shaping forces of the tsunami, the difficult path of the salmon, and the cycle of nutrients flowing from the uplands, through the fresh waters, to the marine waters and back.



If the ocean beach is Seaside's front porch, the estuary is its backyard. It provides abundant opportunities for sensitive immersion in the natural landscape. Through defined access points, people will be invited to enjoy, explore and enhance this backyard of beaches, wetlands, waterways and forests. A carefully designed network of trails will provide additional opportunities to experience the local estuary landscape and will provide links to a vast network of open space, trails and habitat that stretches from the headwaters of the Necanicum River to the shores of the Columbia River. Ultimately, the Natural History Park will be comprised of a rich ecological and cultural fabric, woven of special places and connecting trails that tell the story of the estuary and its people.

What is a natural history park?



Deer at Neawanna Point

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A natural history park is a place for visitors to not only observe the natural environment but to engage in the natural environment in a tangible way. More than a green space, a recreation area or playground, visitors to the park learn the story of the landscape and the dramatic changes wrought by natural forces and human activity. For example, as visitors observe piles of large woody debris far removed from today's shoreline, they learn that these piles are the residual effects of catastrophic events such as the 1964 tsunami. Fast-forwarding to today's processes, a beachwalk takes visitors by large driftwood deposited regularly by the tides, providing an opportunity to raise awareness of the importance of tidally-deposited driftwood to the health of the river system. Moving upriver to the uppermost reaches of the salt water wedge, visitors traverse a boardwalk through wetland sedges, learning from a local botanist about the differences between salt-water tolerant plants and intolerant plants, and beginning to understand the many ways that water shapes the plant and animal communities visible in the landscape.

In a natural history park, the natural environment is not a snapshot that visitors view, but rather the foundation on which an immersive, engaging park experience is built. Through revealing the natural processes that influence human actions and in turn are shaped by human actions, the park helps us understand our place as humans within a larger landscape.

It's a very visible meeting of river and ocean; the visible grasp of higher and lower waters, diving birds, maybe even elk grazing. It's the watershed's watery edge, the teachable moment.

– Nancy Holmes



The Cove

Three scales



View of Seaside from the Mainline



Necanicum Estuary



Neawanna River at low tide

A natural history park is not bounded in the traditional sense of lot lines forming an edge, rather, the natural processes that define the park range from site-specific to global. In the same way, the park's boundaries are expansive and amorphous. Yet, to develop a park program and design, the park area needs to be defined. For the purposes of this Vision Plan, the Necanicum Estuary Natural History Park can be considered at three scales of place: a large watershed scale, an intermediate town scale and a small site scale. The Natural History Park will be:

1. A NETWORK - THE WATERSHED SCALE

From the top of the ridges to the ocean's near-shore, the Necanicum watershed represents the largest area of the park, a network of open space. By defining the park at the watershed scale, the vision can incorporate restoration of connections within the watershed that will enhance habitat connectivity as well as opportunities for learning experiences that link the uplands to the lowlands and the coast.

2. A TIDALLY-INFLUENCED LANDSCAPE - THE TOWN SCALE

At the town scale, the City of Seaside is a place with a unique identity derived from its coastal location and services. The rivers and associated open space within Seaside are part of this identity. The open space sites form a strand - a pattern forming a unified whole within the larger network - that together tell a story about the ecology of place, how human-environment interactions have shaped the town. The boundaries of this strand of open space could be the City limits, the Urban Growth Boundary, or the area of tidal influence.

3. A CONFLUENCE - THE SITE SCALE

The site is the scale at which everything comes together; ecological and cultural history and present-day experience. The Necanicum Estuary is unique along the Oregon Coast with two rivers (Necanicum and Neawanna) and several streams (Neacoxie, Thompson and Mill Creek) entering the estuary at a common point. Neawanna Point, overlooking this physical confluence at the mouth of the estuary, represents one of a handful of sites rich with opportunities for site-based interpretation and engagement with the public.

Vision Statement

The Seaside Community, using an identified network of land and water resources, will establish a Necanicum Estuary Natural History Park that will help maintain ecological functions, provide appropriate public access, and support public engagement in the context of the North Coast Region and its cultural history.

Goals

Based on the Vision Statement and conversations with park stakeholders, goals for the Natural History Park have been formulated to guide the planning and design of the park. The Natural History Park will:

1. **Inventory and document ecological functions and cultural histories and resources**
2. **Restore ecological functions and linkages**
3. **Make the natural and cultural history of the estuary accessible to all people**
4. **Engage people in an experience of the living ecosystem that leads to stewardship**

The park must achieve a balance between provision of exceptional recreational and learning experiences for residents and visitors, and preservation or protection of the health of the estuary landscape, its habitats, its species and the ecosystem services it provides for the residents of Seaside.

By keeping the boundaries “fuzzy” that experience can illuminate the connections that the landscape has and needs, and allow the visitor to be a part of the landscape as a whole from mountains to ocean.

– Katie Voelke



Visitor Groups



Beach-combing at Seaside



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Necanicum River near Broadway

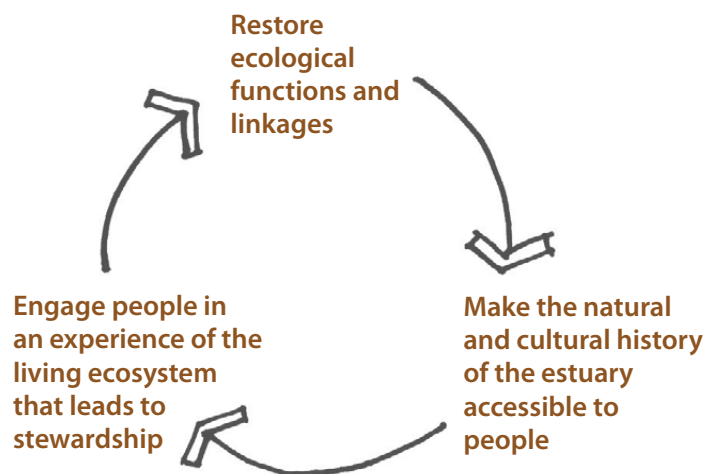
The Necanicum Estuary Natural History Park will serve multiple audiences. The success of the park - and ultimately the health of Seaside and its natural environment - will be determined by the degree to which people are engaged in the park experience. Recreational experiences and interpretive elements will need to address the different interests of the following visitor groups:

The **Seaside Resident** is a primary benefactor of the natural history park. A network of resident-focused places and trails provides a wealth of opportunities for discovery and encourages residents to become active stewards of the park network.

The **Portland Vacationer** is someone who frequently spends the weekend or a summer week on the coast, regularly returning to Seaside for vacations or extended stays. Through experience of the natural history park, these visitors will be introduced to the diversity of recreational and learning experiences available to those who venture beyond Seaside's beachfront-based amenities.

The **Oregon Coast Tourist** is a one-time visitor to the natural history park. Through a positive experience of the park, these visitors have the potential to prolong their stay in Seaside, to become repeat visitors to Seaside, or to take enhanced environmental awareness and ideas of environmental stewardship back to their home communities.

Whether resident, vacationer or tourist, all visitors to the natural history park have the potential to become active supporters of the park and its resources. As people become advocates for the park, volunteering time, money, knowledge and skills, they become critical, invaluable contributors to ensuring the health of the ecological functions and linkages that support their treasured park resource.



VISION PLAN PROCESS



Initial visioning workshop with stakeholders



[The Necanicum Estuary] is largely contained within this community and considered an integral part of it by residents and visitors. Though heavily used, it retains treasures of biologic integrity and “unique” constituent elements .

– Warren Anderson

While a vision for the Necanicum Estuary Natural History Park has been forming in the Seaside community for the past two decades, the initial Vision Plan process was initiated by the City of Seaside Parks Committee in the summer of 2009. The Parks Committee chose Jones & Jones Architects and Landscape Architects to facilitate a visioning plan process and engage the community. Given the complexity of the estuary’s natural history and the pioneering nature of a new type of park, Jones & Jones relied on local expertise and immersion in the field for the plan’s foundation. The vision plan process can be divided into five separate stages:

1. Contextual Analysis

The preliminary phase of planning included data gathering and mapping of the estuary and the watershed as a whole. A questionnaire was distributed to 14 key stakeholders representing the City, Parks Committee, schools, government and non-profit groups with intimate knowledge of the Necanicum Estuary. A list of survey questions and a brief summary of responses follows.

2. Vision Development

Based on the conceptual analysis, preliminary ideas were developed relating to project goals and park extents. A visioning workshop, in which 20 stakeholders participated, generated new ideas for park organization, scale, and landscape elements. Four alternative natural history park scenarios were developed that



Seaside community at Snoqualmie Point, Washington

incorporated the diverse community input.

3. Mountains to Sound Greenway Tour

A larger group of the Seaside community visited the Seattle area for a tour of several significant landscape installations that celebrate the Mountains to Sound landscape corridor and interpret the natural history. The tour generated new ideas among participants. Participants also provided feedback on the four alternative scenarios for Seaside's park.



Seaside tour of Cedar River Watershed Education Center

4. Public Vision Meeting

The four natural history park alternatives were consolidated into one draft vision based on stakeholder input and Parks Committee feedback. This draft vision was then presented to the Seaside community at an open house forum in early March 2010.

5. Vision Plan Production

The analysis, community input, park ideas and draft vision were compiled in this draft vision plan report for community review. This report will provide a launching point for future design of the park's proposed landscape elements.



Participants in the Seaside community tour of the Mountains to Sound Greenway projects in Washington



Questionnaire Response Summary

In December of 2009, a questionnaire regarding the vision for the natural history park was sent to key stakeholders interested in the park, as well as the City of Seaside Natural History Park Subcommittee. The responses informed the goals and future vision of the project as a first step to the vision plan's completion. Below are the questions asked along with a summary of the comments we received:

NATURAL HISTORY PARK CHARACTER

What makes the Necanicum Estuary a unique place?

- The rich biological integrity of the estuary, including seven coho spawning streams
- An accessible estuary that fits within the scale of the city
- The juxtaposition of the natural estuary and urban development leading to interpretive opportunities
- Acts as a gateway to the coast with the first ocean view for travelers heading south or arriving from Portland

What do you consider to be the boundaries of the Necanicum Estuary Natural History Park? What areas should the park include?

Park boundaries can be left "fuzzy." They may include three geographic scales: 1) the overall Oregon coast, 2) the Necanicum watershed, and 3) the tidally-influenced area.

How can the park enhance the small town fabric of Seaside?

By redefining the town as a city within a park, by providing a natural context for gatherings, and by involving citizens in the park vision, the natural history park will create opportunities for stewardship, increased connectivity and a positive change in values.

How can the park enhance the visitor's introduction to the town of Seaside?

Expand visitors' and residents' connections to the whole estuary (not just the beach) by introducing gateway parks at the north and south end and connecting disparate, unique aspects of the park throughout the city.



NATURAL HISTORY PARK PROGRAM



Crabbing on the Oregon coast



What activities would you most like to see being offered at Necanicum Estuary?

Birding, hiking and walking, educational experiences, climbing a tower, floating or paddling, cultural programs, art programs, interpretation, a tide pole visible from the highway, and interactive instrumented monitoring sites. Traditional fishing, crabbing and boating could be accommodated, if these activities were carefully managed.

What are potential opportunities for the park's open space (and habitat) to connect to the surrounding watershed's open space?

Opportunities abound in the tsunami evacuation routes, non-profit conservation organizations (i.e. North Coast Land Conservancy), future parks in the surrounding hills, private land stewardship and sustainable forestry.



Field tour at the mouth of the Necanicum during the Visioning Workshop

NATURAL HISTORY PARK INTERPRETATION



Neawanna Point



What are the most important (or unique) natural processes that should be highlighted for visitors to the park?

Tides, tsunamis and salmon migration were most frequently mentioned. Also: estuary and wetland productivity, fish spawning, vegetation, climate change, storms, salinity gradient, driftwood and nutrient cycling, bird and wildlife habitat, and large wood cycling

Are there any rare, threatened or endangered species known to use the estuary for nesting, foraging or refuge?

Oregon coastal ESU coho salmon, marbled murrelet, trout, anchovies, crab, otter, neo-tropical birds and migrating waterfowl

What tools/programs/design treatments would help facilitate learning in the park?

Interpretive/community center for education programs and local events/rentals

Connections and programs with local schools

Integrated building and trails (beyond interpretive panels)

Student support resources (bathrooms, rinse area, shelter, electrical supply)

Experimental monitoring equipment (i.e. telescopes, measuring devices, internet access)

Natural history center

What human stories of the estuary need to be told?

Historical interaction between people and the landscape, such as the Clatsop Tribe, the Lewis & Clark expedition, and European settlers

Personal histories of senior citizens

Natural disasters, such as tsunamis

Specific place stories, such as the mill ponds quarry

Other comments:

Carefully planned phasing of the park project will be critical to building community support, the eventual implementation of the project and definition of critical ties to the larger watershed. To build support and encourage advocacy it will be essential to link the park process with some of the critical infrastructure needs of the community of Seaside, such as Highway 101 and the flooding south of town.

ANALYSIS

The Necanicum's Many Faces

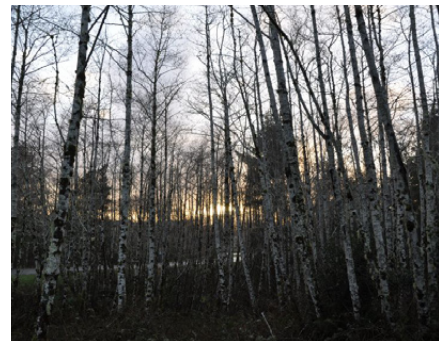
The Necanicum Estuary is a dynamic, living landscape defined by powerful geologic and hydrologic forces. It is home to a rich array of wildlife species and provides a wealth of recreational and educational experiences. For centuries, people have come to the estuary to live and enjoy its many faces.

The comprehensive scale of the park can allow us to knit together all the other parks and new interpretive venues with signs, trails, sidewalks, and other access methods so that residents and visitors can explore the estuary through its natural range. This provides the public exercise, education, and entertainment. It helps the community to understand its place; how the system works; where it is threatened; where it can be improved.

– Tom Hornig



Clatsop-Nehalem Tribe



Seaside History Museum

THE NECANICUM RIVER

The Necanicum River runs approximately 28 miles, falls over 2,800 feet from headwaters to sea and connects upland coastal temperate rainforest systems with lowland wetlands, alluvial plains and the City of Seaside. The greater watershed is a compact 83 square miles with seven sub-watersheds. The main river flows through six of the sub-watersheds.



Up River off Highway 26...



Through Seaside...



To the Estuary...



THE TRIBUTARIES

Many tributaries feed the Necanicum River and the estuary. Muddy Creek, Circle Creek, Williamson Creek, Beerman Creek, Shangri La Creek, Neawanna Creek, Coho Creek, China Creek, Thompson Creek and Neacoxie Creek to name a few, link the upland forest habitat to the low elevation estuary and community. These are prime habitats for spawning and they contribute to the delivery of nutrients to the lowland marshes, tide flats and wetlands.



Neacoxie Creek



Neawanna Creek



Shangri La Creek



Thompson Creek



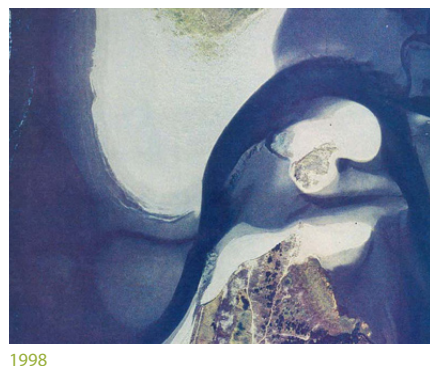
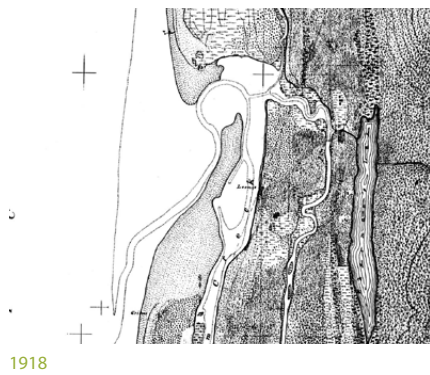
China Creek



Coho Creek

THE EVER SHIFTING ESTUARY

The Necanicum River, Neacoxie Creek and Neawanna Creek all converge at the ever-changing mouth of the estuary. The exchange between ocean waters and fresh waters dance through this landscape; the river swaying from bank to bank. Subtly shifting sand deposits and dramatic storm events constantly alter the course of the river's exchange with the ocean.



THE HABITATS

Connecting the river, tributaries and the estuary is a matrix of coastal upland and coastal lowland habitats consisting of Sitka spruce, hemlock, red cedar, douglas-fir, red alder, maple, marsh grasses, and countless other land and aquatic plants that thrive in this area.



Upland evergreen and mixed forests



Lowland deciduous forests and tidal marshes



Barrier dunes and cobble beaches

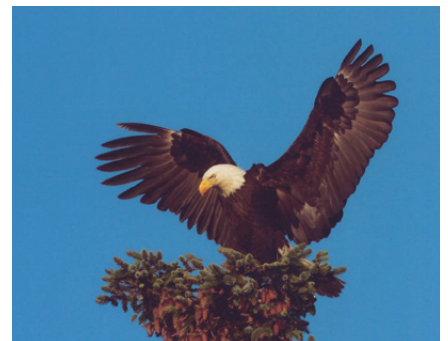


THE WILDLIFE

From soaring eagles and hawks, to diving pelicans, and hundreds of other migrating species, this is a birder's paradise. Fish and crabs are numerous and returning, the beavers are busy cutting trees and shading the streams and creeks for ideal stream stability, elk and deer are spotted daily and large mammalian predators live deep in the forests surrounding the estuary.



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THE PEOPLE'S CONNECTION

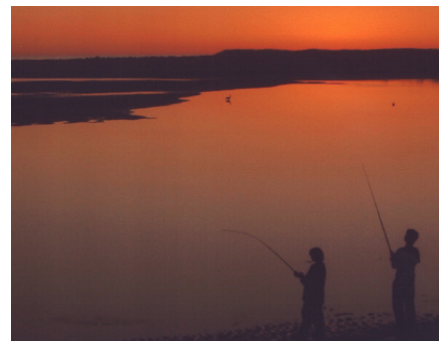
Residents and visitors to Seaside explore and discover the richness of the estuary at a small number of points providing public access to the watercourses and at countless informal access points to the beaches, rivers, and streams.



PacificLight Images



Clatsop-Nehalem Tribe



PacificLight Images

LIVING WITHIN THE ESTUARY

The people who call Seaside home have found a way to live within a landscape dominated by water. Nearly every waterfront property has a direct connection to the living landscape and those that are perched in the uplands are surrounded by the forests that supply nutrients to the sea. Whether living permanently in the area or visting the estuary seasonally, people have long enjoyed the wealth and beauty of the landscape.



Seaside History Museum



Clatsop-Nehalem Tribe



Natural History

LAND FORM



The Necanicum Estuary landscape has been shaped by the forces of geology, hydrology, marine processes, and myriad influences of humans. The land form of the area is constantly changing as rivers migrate, slopes slide and people clear land, fill wetlands and redirect water to prepare land for development. In the face of the dynamic quality of the landscape, humans have always lived a somewhat precarious existence on the coast, subject to earthquakes, tsunamis, landslides and winter storms.

SLOPE ANALYSIS AT THE WATERSHED SCALE



Circle Creek
PacificLight Images

Analyzing the region's slopes tells a story of the past and the contemporary landscape of the Necanicum Estuary from a topographic perspective. This analysis provides a visual map of the overall geomorphic patterns in the landscape. The hills of Astoria and the basalt formation of Tillamook Head bracket the estuaries that flow into the Columbia River and Pacific Ocean. The harder basalt formation of Tillamook Head uplifted and the weaker parent material eroded away and formed the river channels that define the estuary. Crossing the plane of water at Youngs Bay, the visitor is introduced to the flat landscape which continues south along Highway 101 to Seaside. Flat areas have developed over hundreds of years through alluvial silt deposits. Coastal mountains produce silts and deposits that flow to the estuaries, accumulating in protective rings of barrier dunes and buried gravel bars.

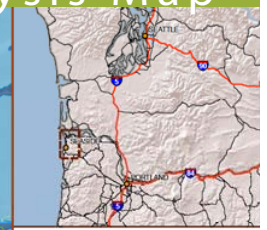


Forested hill slopes above Seaside

The large band between 50' to 100' elevation contours defines the oceanic coastal terrace where the sea once met the land. The best opportunities for telling the story of the greater geologic patterns that define the coastal environment occur where flat areas abruptly meet vertical slopes, such as at Circle Creek. The developed and inhabited barrier dunes and gravel bars further reinforces the concept of anchoring in the landscape and protecting the estuary from further erosion.

Transitions from one habitat to another, from one community to another, and one river channel to another are all directly related to the regional topography and geology. The larger patterns inform us of the smaller processes that influence land use decisions at varying scales. Following these patterns from the watershed to the estuary can be the transecting story of time and scale; the beginnings of interpretation, education, tsunami awareness, habitat protection and future development.

Greater Necanicum Watershed Analysis Map



Legend

- 50-100' Contour Zone
- Highways
- Watershed (HUC-10)**
 - Necanicum River Watershed
- Rivers & Streams**
 - Rivers & Streams
- Hydrology**
 - Lakes and Ponds
- Legislative Boundaries**
 - Parcel Boundary
 - City Boundary
- Slope Analysis**
 - 0-2%
 - 2-8.33%
 - 8.33-20%
 - 20-50%
 - 50-100%
 - >100%

Map Data Disclaimer:
GIS data used to develop this map was supplied by
Federal, State, and County Geospatial Data Archives
Coordinate System:
NAD 1983 State Plane Oregon North FIPS 3601 F1 Int
Projection:
GCS North American 1983



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**Necanicum Estuary
Natural History Park**
Seaside, Oregon



January 2010 Map #



SLOPE ANALYSIS AT THE CITY SCALE

Zooming in to the city scale, slope mapping assists with identification of areas within the watershed that reveal unique landform adjacencies and thus provide opportunities for telling stories about the natural history of the area. For example, in contrast to the predominately flat core of the City of Seaside, the landscape east of Tillamook Head, where the Necanicum River flowed into the prehistoric bay, the topography is more dramatic with abrupt topographic change. To the southwest of Seaside, the cliffs of Tillamook Head fall abruptly into the ocean. Similarly, the upper reaches of Thompson Creek have a number of nearly vertical slopes that seem to pinch the adjacent streams.

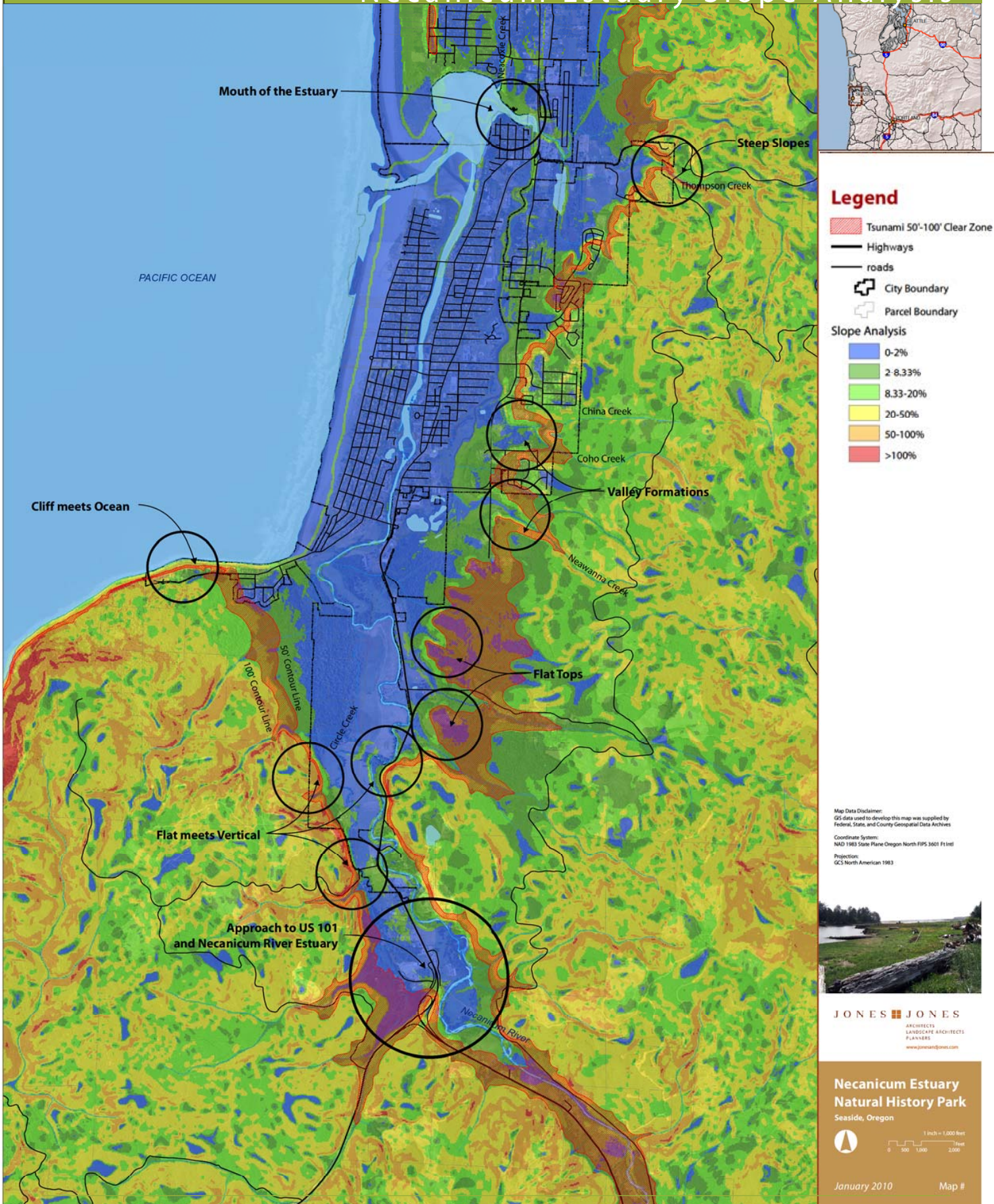
Moving from the regional scale to the estuary scale, we can also begin to define local patterns of settlement and development in terms of the larger topographic landscape. Here within the estuary, the large majority of development has occurred below the 50' contour line on land with less than 2% slope. The city, for the most part, is built on flat land between five and ten feet in elevation. Development occurred in these flat lowlands due to the ease of access, ease of construction, and proximity to marine and freshwater resources. However, in the future a significant portion of development will likely occur above the 50' contour line, out of the tsunami hazard zone, despite the topographic challenges associated with moving out of the flat lowlands.

TSUNAMIS

Tsunamis represent a real danger to the community of Seaside. Generated through a combination of powerful geologic and marine forces, the last major tsunami hit Seaside's coast in 1964. Its effects can still be seen in the large woody debris tossed above the highest tide lines throughout the estuary.

Common to each map in this analysis section is a red hatched Tsunami-Safe Transition Zone. The zone is defined at the lower elevations by the 50' contour line and at the higher elevations by the 100' contour line. This zone does not reflect an official tsunami safety zone, rather it highlights land area above the 50' contour line — the former "safe elevation" in coastal Oregon — but still below the 100' contour line shown by some recent research to be a more accurate estimate of a tsunami-safe elevation. The visual representation of the Tsunami-Safe Zone serves as a graphic reminder of an ever present natural force that should be considered in any design and planning process involving human safety and development or land acquisition decisions.

Necanicum Estuary Slope Analysis





Stanley Lake



PacificLight Images



Neawanna River

WETLAND HABITAT

The lowlands of the Necanicum watershed are defined by water; the flowing, dynamic waters of the tides, the estuary, the rivers and the streams, and the standing, lazy waters of the expansive wetlands, the Mill Ponds, and Stanley Lake. Necanicum Estuary Wetland Map shows wetlands as mapped by the USGS and U.S. Fish and Wildlife Service. Although these wetland maps are not specific as to type of wetland, the map illustrates the overall complexity of the wetland landscape in relation to the estuary, developed areas, and transportation corridors. Fresh water and tidally-influenced wetlands weave through the City, often creating challenges for many development and transportation projects. However, these challenges can also be seen as exciting opportunities for providing extensive recreation and interpretation within close proximity of most residential neighborhoods and tourist facilities.

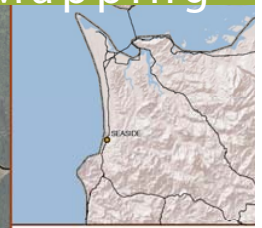
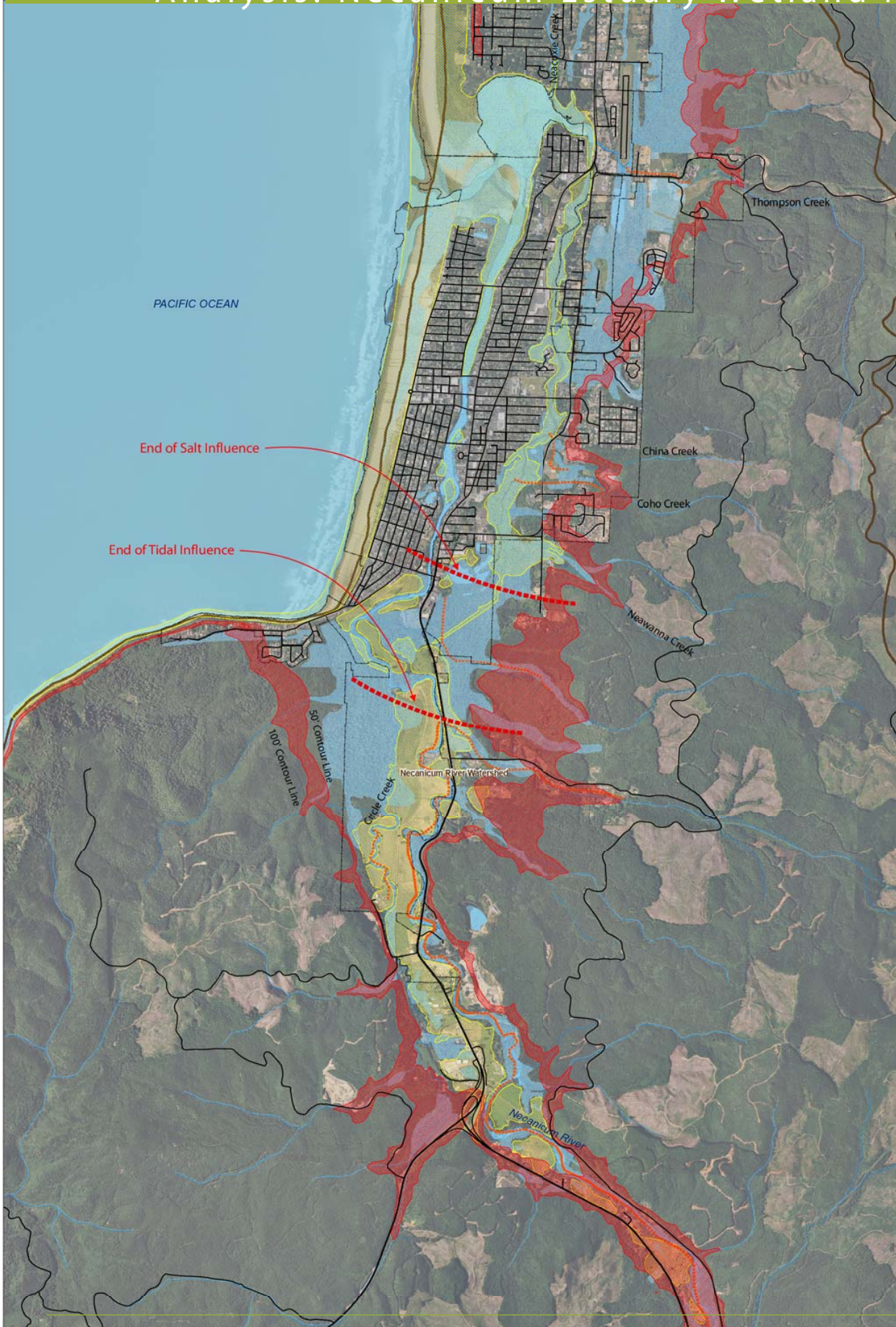
Extensive wetland mapping is currently underway in the estuary. The results of this work should be included in any future planning or analysis associated with site-specific park facilities and trail development. Specific information about the extent and type of wetlands, upland habitats and individual species will inform site development decisions as well as identification of site-specific interpretive opportunities. Understanding the various wetland and habitat conditions present throughout the estuary landscape is key to developing the themes of the Natural History Park.

We should have activities that raise awareness to assist in our stewardship of the estuarine resources and living in context with Nature. For example, the network of sites throughout the estuary should be linked with pathways and signage that are consistent and inviting to lure people along on their exploration of the place, because the estuary changes along its length and reach of the rivers.

– Tom Hornig



Analysis: Necanicum Estuary Wetland Mapping



Legend

- Tsunami 50'-100' Clear Zone
- Clearings
- Legislative Boundaries**
 - Parcel Boundary
 - City Boundary
- Watershed (HUC-10)**
 - Necanicum River Watershed
- Hydrology**
 - Lakes and Ponds
 - Rivers & Streams
 - Wetland (No Classification)
 - NRWA Priority Reaches

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**Necanicum Estuary
Natural History Park**
Seaside, Oregon



January 2010 Map #





Necanicum Estuary, Pacific Ocean and the City of Seaside

Cultural History

CULTURAL LANDSCAPE



Water travel
Clatsop-Nehalem Tribe



Seaside Historical Museum



Jennie weaving
Clatsop-Nehalem Tribe

For centuries, the topography, waterways, vegetation patterns, and availability of marine and terrestrial resources have defined the way that people move through, inhabit and relate to the landscape in and around the Necanicum Estuary. In turn, this landscape has been shaped by centuries of human influence. At times subtle and ephemeral, at other times dramatic and long-lived or irreversible, the traces of human presence in and around Seaside can often be found inscribed in the landscape or persistent in stories of people and the land.

The cultural history of the Necanicum Estuary can be roughly grouped into three periods of human history: (1) Clatsop-Nehalem People, (2) European and Euro-American Explorers, (3) Clatsop Beach Settlers and Vacationers. These three periods are defined by place-specific events and activities, regional events and patterns of behavior, as well as by differences in the way that people relate to the landscape, its processes and its creatures. Within the natural history park, interpretive themes could range from Seaside-specific cultural history stories to broader themes exploring the place of people within the northern Oregon coast or even coastal environments worldwide.

We should include lessons learned from the legacy of past generations in the interpretive stories

– Al Smiles



Gathering
Clatsop-Nehalem Tribe



Fishing
Clatsop-Nehalem Tribe

CULTURAL HISTORY

Clatsop-Nehalem Period

The Necanicum Estuary, its lands and its resources attracted the sothern Clatsop people and the northern Nehalem people to develop multiple permanent settlements. The area around the estuary was significant not only as a home for both Clatsop and Nehalem people but also for the wealth of resources that supported a large village at the mouth of Neacoxie Creek. The estuary and marine near-shore provided sufficient fish to draw Clatsop people south from the Columbia River during the seasonal salmon runs and provided a rich source of shellfish and other fish throughout the rest of the year. The lowlands around the estuary were known as a good source of berries (their production often enhanced with regular burning), reeds used for weaving baskets, and wood and bark used for clothing, lodges and canoes. Because of the dense forest and extensive wetlands surrounding the estuary, the primary routes of travel into and out of the area were the riverine waterways and the marine shoreline. Sea-worthy canoes were used to move between Seaside and the Clatsop villages to the north near the Columbia River and south to the Nehalem and Tillamook villages along the coast and around the Nehalem Estuary.

The Clatsop-Nehalem people's relationship to the land and its creatures is defined by deep respect and reciprocity. From the northern mouth of the estuary near Neawanna Point, to its southern reaches near Tillamook Head, the Clatsop-Nehalem people have celebrated and nutured the wealth and health of the estuary and its inhabitants.



Otters at Neawanna
PacificLight Images

European and Euro-American Explorers

Early explorers were drawn to the estuary and the northern Oregon coast for its wealth of natural resources. Unlike the Clatsop-Nehalem people who had lived in the region for centuries, the explorers' relationship to the land was not based on reciprocity but rather entirely on extraction. For example, early maritime explorers hunted otters nearly to local extinction, dramatically altering the balance of the marine nearshore ecosystem by removing a primary predator linked to the health of nearshore kelp forests. Maritime explorers marked the beginning of the Euro-American transformation of the landscape through extraction of native resources, introduction of exotic plant and animal species, and the transport of disease that greatly reduced the population of the local Clatsop-Nehalem people.

Toward the end of the period of explorers in 1805-1806, the Lewis and Clark Expedition made its way to the North Oregon Coast. Continuing the theme of extraction, a small party traveled to the Necanicum Estuary to harvest salt for their return voyage. The beach in the City of Seaside represents the western-most camp of the Lewis and Clark expedition.

Although little physical evidence remains from the period of explorers, their legacy can be seen and their stories can be told through the absence of species and people that were once abundant in the area.

Clatsop Beach Settlers and Vacationers

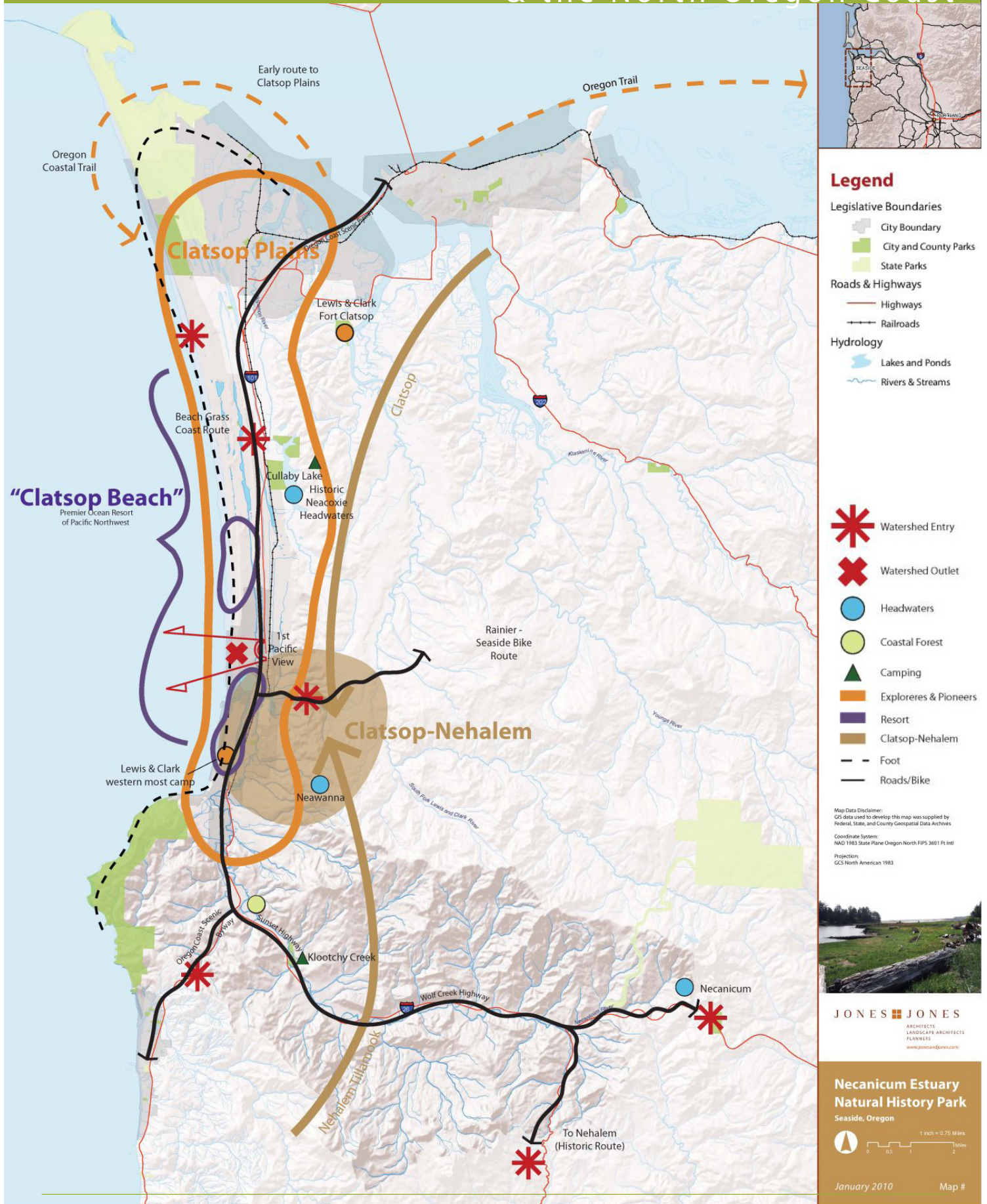


Mill Ponds Logging Operations
City of Seaside

The Necanicum Estuary lies at the southern end of the Clatsop Plains, a 10-mile long narrow band of land that attracted early settlers to pursue agriculture, timber production, and fisheries. As settlement increased in the area, the Clatsop Beaches became a premier beachfront destination for locals and vacationers, with Seaside and Gearhart at the center of the activity. Access routes via boat, coach, trains and later highways, brought people from Portland and the Willamette Valley for weekends or extended stays to experience the expansive, sandy beaches of the Clatsop area, the rich fisheries of the coast, estuary, and streams, hunting opportunities (bear, elk and waterfowl), and beachfront resort facilities.

This period was defined by radical transformation of the landscape through agricultural, forestry and development practices. Large swaths of forest were removed, agricultural and pasture crops, cattle and sheep transformed the

Analysis: Cultural History of Necanicum Watershed & the North Oregon Coast





Seaside North Spit 1968
City of Seaside



Seaside Beach
PacificLight Images

Seaside is so much more than the downtown shopping area with its arcades, amusements, and salt water taffy.... The park can give a greater context to Seaside, and provide opportunities for "eco-tourism."

– Sarah Zwissler

lowlands and shoreline dunes, waterways were created, redirected and drained for development and agricultural purposes, and developers filled marine nearshore and wetland landscapes to create and protect real estate and transportation investments. In one and a half centuries, the landscape of the Necanicum Estuary and the North Oregon Coast was tamed, settled and transformed into the landscape we know today. With this transformation came significant costs to the health of the ecosystem, many of which are visible in the estuary and lowland landscape surrounding the City of Seaside.

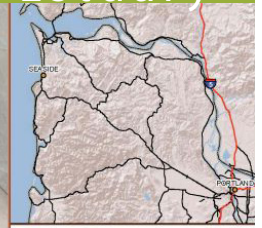
CONTEMPORARY CULTURE

Today, the area is well known for recreational opportunities associated with Seaside as a beachfront resort town. The historic Prom, adjacent expansive beach, and downtown Seaside's retail and entertainment venues are a popular vacation destination during winter and summer months. The Cove has also been a longtime favorite surfing spot for locals "in the know." Positioned along the Oregon Coast Highway and Oregon Coast Trail – major coastal tourist routes traveled by vehicles, bicycles and pedestrians – Seaside also draws short-stay visitors traveling the coastal route. The Necanicum Estuary is the northern most estuary on the Oregon coast and is the first point at which travelers from the north see and have access to the Pacific Ocean.

The inland landscape of Seaside is a largely undiscovered treasure. Residents and frequent visitors to the area enjoy spectacular wildlife viewing, fishing, and birdwatching in the estuary, along the shores of the Necanicum, Neawanna and Neacoxie rivers, and in adjacent wetlands. The uplands and rivers also attract people for active recreational pursuits such as hiking, mountain biking and kayaking. Those who are familiar with the inland landscape are eager to explore opportunities for introducing residents and visitors to its diversity and beauty while concurrently restoring its ecological health.

Seaside, and the greater Clatsop County, are part of a coastal economy whose relationship with the natural coastal resources is changing. Natural resource-based jobs and manufacturing are declining, while services and retirement facilities are growing as a percentage of the coastal economy (see Swedeen and Batker, 2008). The natural environment of coastal estuaries contributes to the attractiveness of the Seaside area for tourism, retirees and entrepreneurs, as well as ecosystem services of fisheries, recreation, storm mitigation and nutrient cycling. These scenic and ecological amenities have direct economic value in the increasingly complex coastal environment.

Analysis: People in the Necanicum Estuary



- Legend**
- Public Access
 - Legislative Boundaries
 - City of Gearhart
 - City of Seaside
 - Parcel Boundary
 - North Coast Land Conservancy
 - Public Lands
 - City of Seaside
 - City and County Parks
 - State Parks
 - Roads & Highways
 - Highway
 - Road
 - Hydrology
 - Lakes and Ponds
 - Rivers & Streams
 - Tsunami evacuation Route
 - Access point
 - Walking trails
 - Bicycle trails
 - Beach tourism core
 - Resident community core
 - Views (Estuary system)
 - Wildlife/Nature access

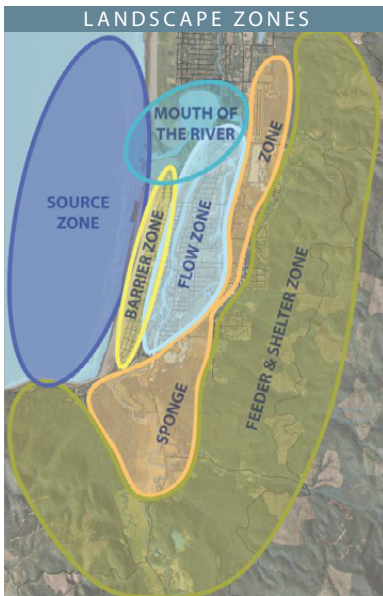


JONES JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS
www.jonesandjones.com

**Necanicum Estuary
Natural History Park**
Seaside, Oregon

1 inch = 800 feet
0 400 800 1600

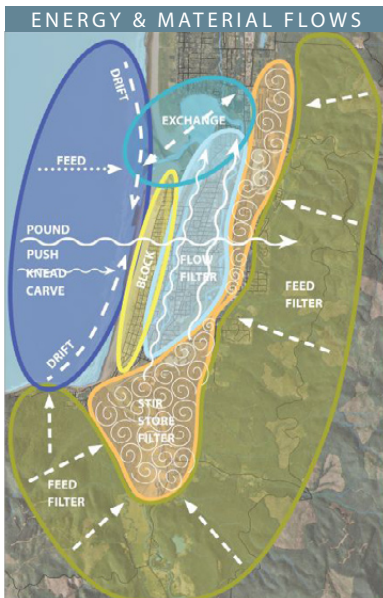
January 2010 Map #



VISION PLAN

Natural History Park Concept

Our analysis is just a snapshot of the richness and complexity of the living, breathing, dynamic estuarine ecosystem that envelopes Seaside, Oregon. Early in the visioning process we discussed key words to express the bountiful opportunities that are present in the area and in the spirit of place. *Humbling, dynamic, complexity and proximity, barriers, gradients, and flows* are just a few of the words that surfaced when trying to identify the soul of the place. The richness and diversity of words reflects a landscape and community “overwhelmed with opportunities” for creating an unprecedented, city-wide natural history park.



LANDSCAPE ZONES

Source, barrier, mouth, flow, sponge, feeder and shelter: the landscape of the estuary can be divided into different zones defined by distinct ecological processes and unique aesthetic and experiential qualities.

ENERGY AND MATERIAL FLOWS

Energy, materials (and people) move through the zones in different ways - as determined by the slope, the substrate, the vegetation and the weather - and have a variety of impacts on adjacent landscapes: materials and energy flow, feed, filter, stir, store, block, exchange, pound, push, knead, carve and drift.



EDGES AND HINGE POINTS

Edges are dynamic places, defined by the juxtaposition of differing habitats, geologic features, or hydrologic regimes. At these points of juxtaposition, the unique aspects of neighboring landscapes are highlighted, and new, hybrid elements are created. Hinge points identify those places where exceptional edges are overlaid with rich cultural history.

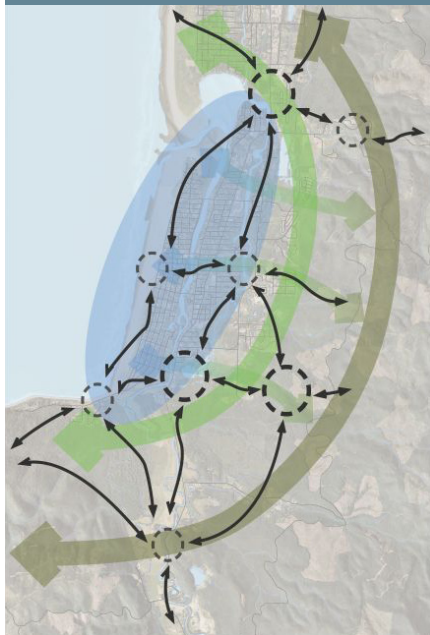
DYNAMIC EDGES

visible natural & culturally-shaped edges

HINGE POINTS

confluence of natural & cultural forces

AUDIENCES & EXPERIENCES



AUDIENCE

- Tier 1. Oregon Coast Visitor
- Tier 2. Vacationer
- Tier 3. Resident

EXPERIENCE

- major gateways
- interpretive hinge points
- ➔ connections

Park Audience

TIER 1. OREGON COAST TOURIST

- one-time visitor to Seaside
- afternoon, single day, or multi-day experience

For these visitors, access points, experiences and stories are located primarily on the shore, at the mouth of the estuary, and along the Necanicum River with opportunities for linking to nearby Neawanna River and wetlands as well as Oregon Coast hiking and cycling trails.

TIER 2. VACATIONER

- regular visitors and vacation home owners
- annual, semi-annual, monthly experiences

Opportunities for experiencing the Necanicum Estuary are expanded to include trails and access points along the Neawanna River and wetlands, tributaries to the Neawanna, the Necanicum and the Neacoxie rivers, and nearby upland forest trails.

TIER 3. RESIDENT

- Seaside and North Oregon Coast residents
- frequent use of recreational, educational and community resources

For residents, a distributed park system would include a more extensive network of connections to trails through the upland forests as well as a network of in-town, low-visibility neighborhood access points to the estuary and its tributaries.

Park Experience

DISTRIBUTED ACCESS + INTERPRETIVE HUBS

A distributed network of minor interpretive hinge points and access points, public and community trails, and diverse gathering places offer a variety of locations and ways to experience the landscape of the Necanicum Estuary. Major hinge points provide opportunities for gateways and large gathering areas, including interpretive, recreational, educational and community facilities.



Forest near Neawanna Point
PacificLight Images

The Landscape Experience

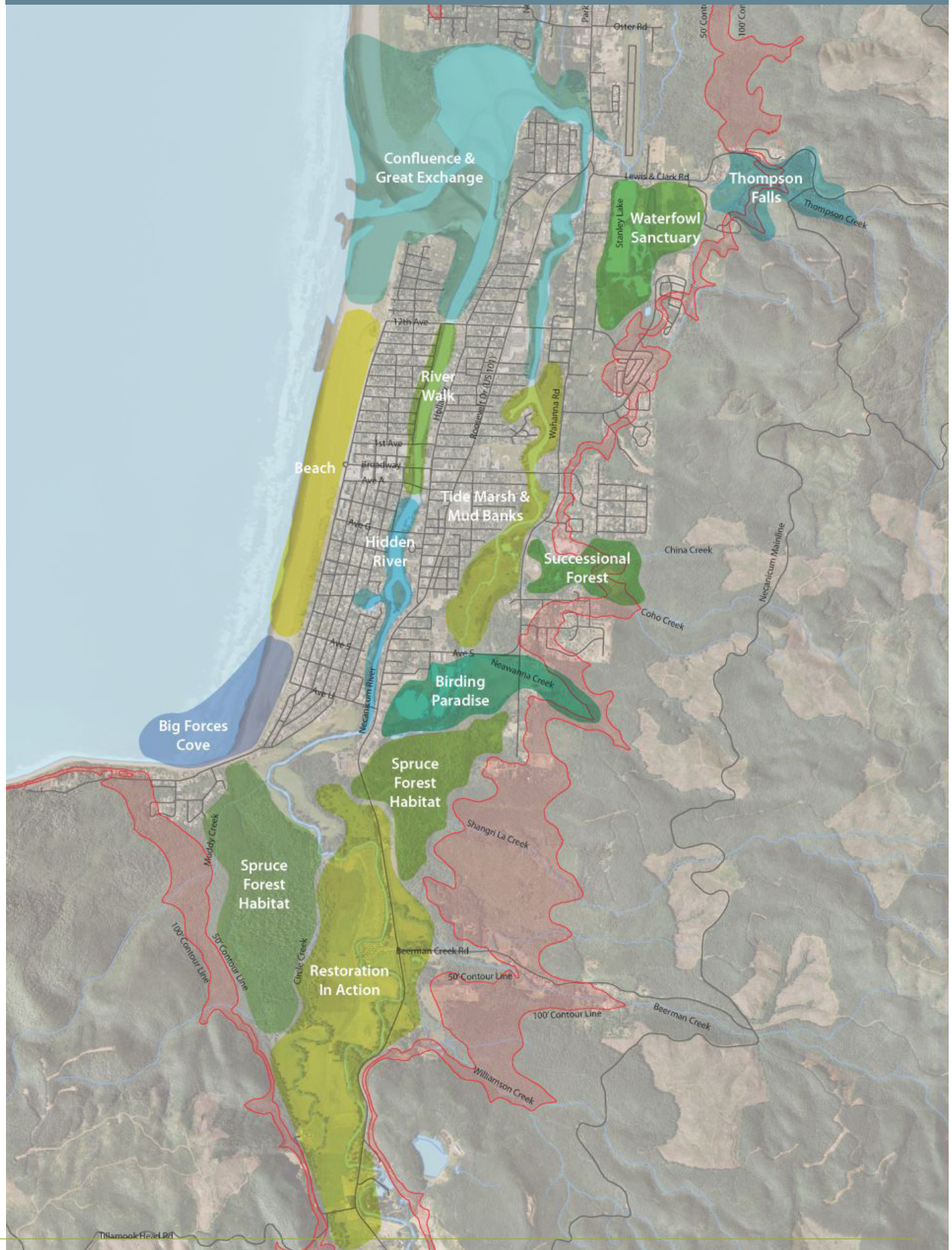
The vision for the Necanicum Estuary Natural History Park is built on a framework of landscape experience zones, defined by distinct or exceptional natural and cultural resources and experiential opportunities. The landscape zones can be thought of as smaller rooms within a larger landscape matrix, offering opportunities for interpretation both within and between zones. Many of the zones currently exist as destination places for residents and visitors alike, including the [Beach](#), [Big Forces Cove](#), [Tide Marsh and Mud Banks](#), and [Birding Paradise](#) to name just a few. All are rich with natural and cultural meaning, worth visiting individually for a brief morning visit, as part of an extended afternoon excursion, or repeatedly over the changing seasons.



Can we possibly imagine a genuine ethos for the protection of the natural world that is not firmly rooted in direct personal experience of living nature and a profound sense of natural history?

– Orion, 2001

Landscape Experience Zones: Afternoon Excursions



The Vision Plan

The vision for the park is defined by a distributed network of [Hinge Points](#) and [Access Points](#) linked by a network of [Trails](#).

HINGE POINTS



Park Entry Points

Minor landscape hinge points serve as entry points to the natural history park. Located at specific points throughout the city, the Park Entry Points provide information about the cultural and natural history of their specific location as well as an overview of the entire park and trail system. These points serve as gateways into the park, providing an introduction to the Necanicum Estuary Landscape from a variety of perspectives and locations.



Welcome and Interpretive Centers: Neawanna Point Welcome Center and Mill Ponds Environmental Center

At either end of Seaside, two centers provide opportunities for prolonged, immersive experiences of the Necanicum Estuary landscape. At the north end of Seaside, the Neawanna Point Welcome Center functions as a gateway to the City of Seaside, the North Oregon Coast, and the estuary park. Facilities at this site sit lightly in the landscape, focusing on enhancing the inherently powerful experience of the coastal estuary while introducing the dynamic forces that continue to shape the landscape. In contrast, the Mill Ponds Environmental Center provides opportunities for immersive experiences in the tidally-influenced wetland landscape. An Estuary Education Center functions both as a welcome/interpretive center for travelers arriving from the south and as an environmental education center and gathering place for residents and the broader local community.



Tower example: Paynes Prairie Preserve State Park







Coastal Terrace Education Center

Perched above the estuary proper on the forested slopes of the upper watershed, the Coastal Terrace Education Center provides a birds-eye view of the Necanicum Estuary. At the hub of a large trail network, the center offers opportunities to explore the intimate relationship between the upper watershed and the lower estuary through visual and physical experiences. Located above the tsunami impact zone, the center serves multiple purposes for the residents of Seaside by housing archives, functioning as a tsunami support center, and providing a large community gathering

Envision Necanicum Estuary Natural History Park

Neawanna Point Welcome Center

- visitor / welcome center (1,500 sf)
- tsunami information
- gateway road improvements
- formal trails

-  hinge points
-  access points
-  trails
-  landscape experience zones

Thompson Falls

- trail head
- pillow rocks
- Falls trail to Stanley Lake
- Necanicum Mainline Trail

Tsunami Park

- trail from lowland to upland
- coastal terrace trail
- north tsunami support center
- overlook to estuary

Beachfront

- shifting sands
- coastal barrier

Broadway Tidal Flats

- canoe launch
- tidal markers
- mud flats

Big Forces Cove

- coble beach
- ocean deposits
- tsunami deflection
- ocean / spruce forest

Canoe Launch

Coastal Terrace Education Center

- 3,000-6,000 sf
- tsunami support center
- archival center
- viewing platform/tower
- trail connections to mainline and future coastal terrace trail

Wildlife Crossing

Mill Ponds Environmental Center

- estuary education center (1,500 sf max)
- indoor/outdoor classrooms with restrooms
- viewing platform/tower
- resource library
- birding trails and family activities

Historic Necanicum Estuary

- Circle Creek restoration
- historic mouth of the bay
- pre-historic underwater canyon
- major geologic fault line
- basalt formations



Interpretive sign at Rattlesnake Lake
(Jones & Jones)

The connective elements of the park should really be the vehicle that gets visitors involved in the community, not just the beach.

– Neal Wallace



Shoreline Streetend along the Necanicum Estuary



Community Work Party, Cesar Chavez Park, Seattle

PUBLIC & COMMUNITY ACCESS POINTS

A distributed network of access points invites residents and visitors to experience the diverse habitats and cultural sites throughout the estuary. Depending on the sensitivity of the ecological and cultural landscape within which they sit, access points will be either clearly marked with natural history park interpretive elements, or minimally enhanced, left to be discovered by curious residents and vacationers. Access points include sites associated with the ocean beach, the estuary, rivers and wetlands, and the upland forests.

■ Access Points - Existing

Existing public access points will be enhanced with interpretive elements and/or habitat restoration to improve their capacity to meet the recreational, interpretive and ecological goals of the natural history park.

□ Access Points - Proposed

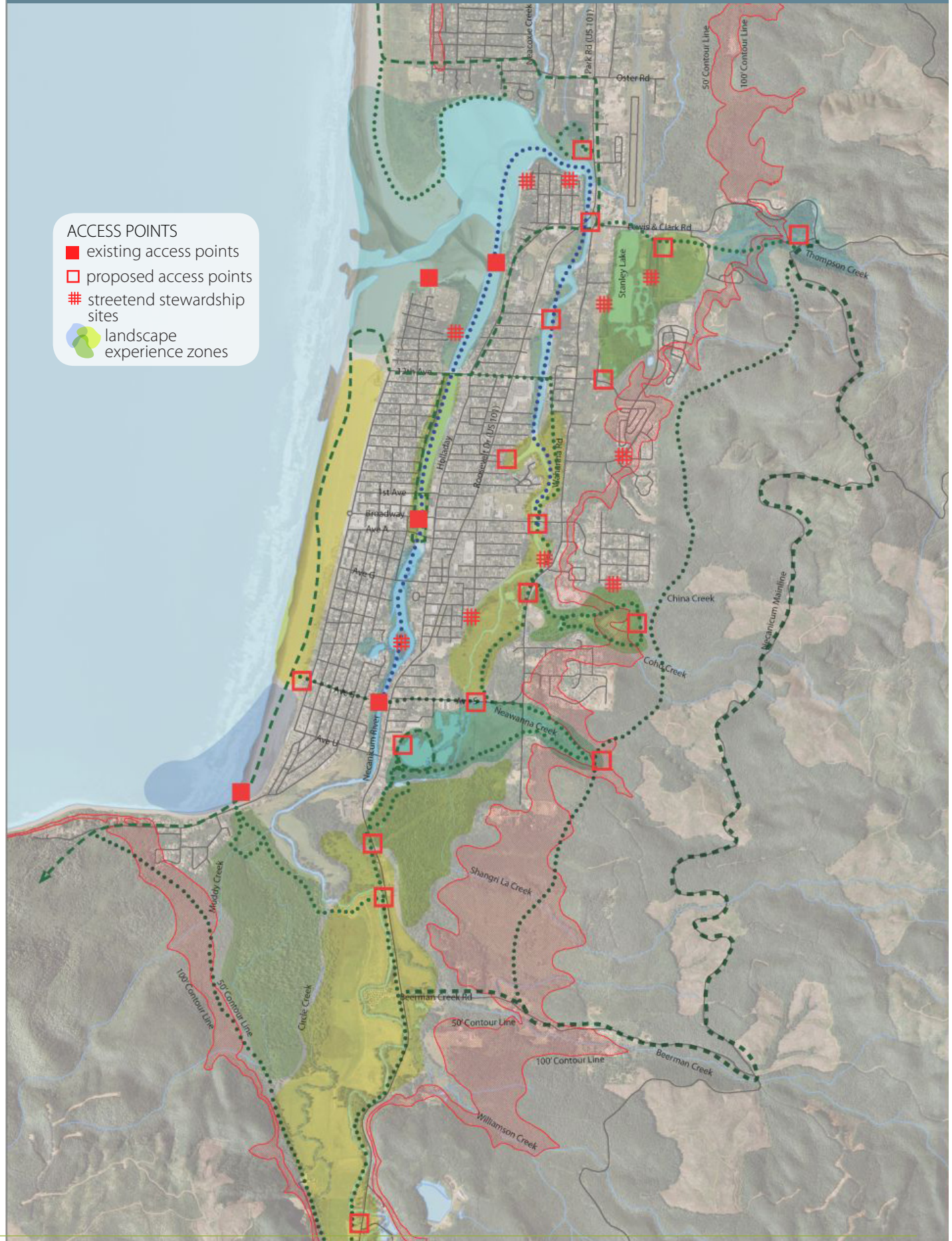
A limited number of additional public access points will be developed to increase the story-telling capacity of the estuary landscape. Proposed access points are primarily located along Neawanna River and in adjacent wetlands and lowland forests.

⦿ Seaside Streetend Stewardship Sites (S⁴) - A Community Access & Stewardship Network

Building on the ideas developed by highly successful community-based Shoreline Streetend Park programs in other cities, the Seaside Streetend Stewardship Sites (S⁴) network uses the landscape zone framework as a structure for building a neighborhood-based stewardship program. Throughout the City of Seaside, streets dead-end on the banks of the estuary and the rivers, on the slopes of alder-filled ravines, and at the edges of densely forested slopes. These streetends represent public access points and rights-of-way to, and often through, the diverse habitats of Seaside. Many streetend access points are already heavily used by local residents and regular visitors and although loved, are feeling the pressures of overuse and lack of maintenance. Community-led stewardship of these sites will enhance the ecological health and the human experience of these sites and the larger estuary landscape.

The S⁴ network of access points provides a fine-grained fabric of immersive landscape experiences targeted specifically at the local residential community living within and near the estuary. Nurturing a positive stewardship ethic within this community brings the Clatsop-Nehalem spirit of reciprocity and respect for the land into the contemporary experience of all residents and visitors to Seaside.

Envision Necanicum Estuary Natural History Park





Cedar Lake
Jones & Jones



National Center on Accessibility



Mercer Slough
Jones & Jones

NETWORK OF LOCAL & REGIONAL TRAILS

An expansive network of accessible and primitive trails links existing public trails along the beach and through downtown Seaside to local trails through the lowland and upland forests and regional trails north to Fort Clatsop and south to Cannon Beach. A 3-tiered hierarchy of trails encourages access to those areas that can withstand heavy public use and discourages heavy use of ecologically and culturally sensitive areas: 1) fully accessible public access trails, 2) limited access community trails, 3) regional trails. Some specific trails identified for further development include:

Necanicum Mainline Trail

This trail is an old logging road currently favored by mountain bikers and adventurous hikers. With territorial views of the estuary and its watershed this trail could be developed as a ridge-top loop, circumnavigating the estuary.

Coastal Terrace Trail

This proposed trail is envisioned as a legacy trail serving multiple functions: it provides a north-south trail outside of the tsunami zone, easily accessible from downtown; it provides a link between future upland development areas; and it protects the forested slopes seen from the estuary. The Coastal Terrace trail should be incorporated in all future upland development as a mechanism for protecting upland watersheds and developing tsunami-preparedness infrastructure.

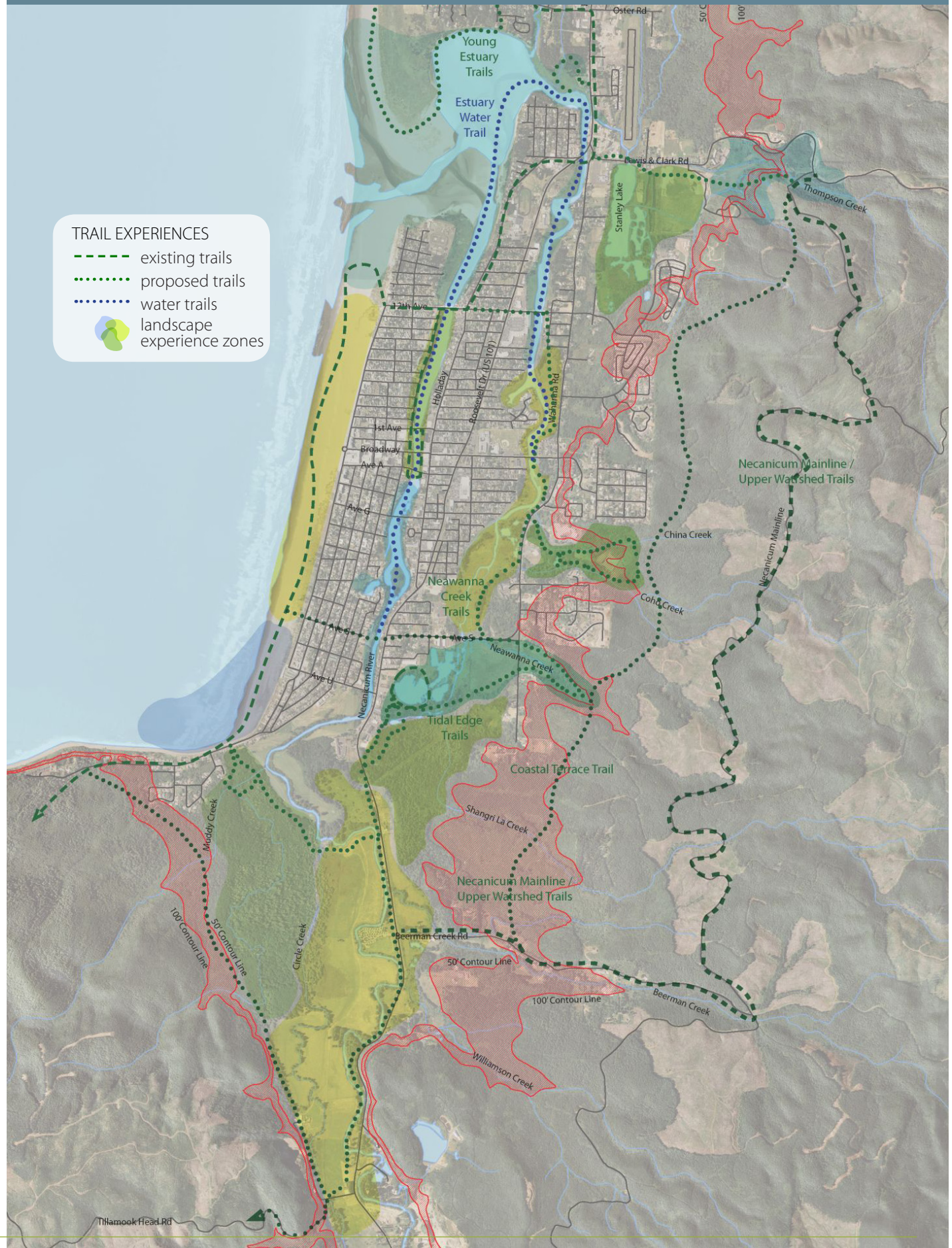
Lowland Trails

This network of trails links the upland forest trails to the lowland wetlands and marsh trails. These habitats are very sensitive to human use and will require careful consideration of corridor routes and access points. Although many of these trails can take advantage of existing road rights-of-way and bridge overpasses, new trails through or within close proximity of critical habitat zones will likely require boardwalks or restriction to less-sensitive edge zones.

Water Trails

Building on existing public launch points, the estuary water trails provide a loop trail through Neawanna Creek, Necanicum River and the mouth of the estuary. Consideration of the tides, seasonal variations in water flow and species sensitivity to human access will provide an exciting seasonality to the experience of the water trail. Trail markers identifying current tidal conditions and water levels will enhance the experience of the trail and provide critical information about trail accessibility.

Envision Necanicum Estuary Natural History Park



Interpreting & Experiencing the Park



Migrating mouth of the estuary



Native American family at a Seaside beach
credit



Clatsop-Nehalem Tribe

There is the opportunity to share about the native inhabitants and villages from thousands of years ago, to the story of the mill ponds quarry. The land would need to show us what human story should be told there.

– Katie Voelke

The Necanicum Estuary is a dynamic place. Remnants of massive geologic and hydrologic events are present throughout the contemporary landscape of Seaside and its surroundings. Stories told by the Clatsop-Nehalem people and early explorers of the area describe an exceptionally rich landscape, respected for a wealth of resources and powerful forces that shape and reshape the lands and waters. Inscribed on the patterns left by natural events and the early people of the region, traces of more recent human activities are visible in the dramatically altered vegetation patterns, shifts in species abundance and distribution, changed patterns of water flows, and altered land forms. Organized around four central themes, the recreational, educational and interpretive experiences of the Necanicum estuary Natural History Park will introduce visitors to this unique area and invite them to become active participants in preserving and celebrating its beauty and its health.



Snoqualmie Point Park Overlook, I-90, Washington
Jones & Jones



Shorebirds along the Seaside beach
PacificLight Images



Logging in the Necanicum Watershed
Seaside Historical Museum



Jennie of the Clatsop-Nehalem Tribe
Clatsop-Nehalem Tribe

INTERPRETIVE THEMES

Forces that Shape the Landscape

Powerful Forces: Shaping and Reshaping the Land. Tsunamis, geologic phenomena, wind, waves and people dramatically alter landforms, water flows and species patterns over short periods of time.

Living in a Dynamic Landscape. For centuries, people have adapted to this landscape in flux. Archaeological and geological records tell parallel stories of historic cultural change and current tsunami preparedness planning looks toward future adaptive measures.

Wealth of the Estuary

Ebb & Flow. The mixing of fresh and salt waters brings life to the estuary and defines distinct plant and animal communities from the estuary mouth to the tip of the salt water wedge. The Necanicum Estuary supports a remarkably diverse suite of species and habitats.

Upland Forests: Feeder, Filter and Shelter. The forests surrounding the estuary provide critical fresh water, nutrients, and sediment to the estuary. The forest canopy shades streams and keep waters cool while also sheltering species from predators, sun, and storms. The deep mass of roots and soils slow and filter water as it makes its way to the estuary.

Harvest & Change

Explorers & Clatsop Plains Settlers: Resource Extraction and Estuary Transformation. The south end of the Clatsop Plains was attractive to early Euro-American settlers due to the wealth of the land, the waters and the beauty of the area. Extractive resource use, cultivation of new species, and alteration of water flows transformed the estuary into the land we know today.

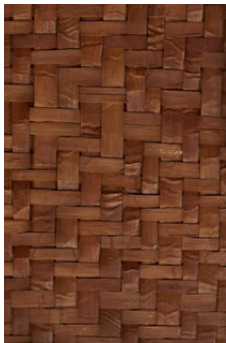
Reciprocity & Stewardship of our Home

Clatsop-Nehalem Values and Traditions: Taking From and Giving Back to the Land. Two cultures with different languages, histories and traditions came together to share life at the mouth of the estuary. Their relationship with the land was grounded in respect and reciprocity for all species and the processes that sustain them.

Ecosystem Services: Stewarding our Home. Ecological health and quality of life are intimately linked in the estuary. Small actions of stewardship can have a large combined effect, contributing significantly to the longevity of Seaside as a vibrant, healthy home for people and wildlife.



Vancouver Landbridge, Fort Vancouver, Washington
Jones & Jones



Reed basket-weave



Roof Water Collection at Cedar River Watershed
Environmental Education Center
(Jones & Jones)

INTERPRETIVE ELEMENTS

Throughout the Necanicum Estuary Natural History Park, a variety of types and scales of interpretive elements will tell the story of this dynamic landscape and the people who call it home. Depending on the scale of each facility, direct and indirect interpretive methods will be used to tell site-specific stories and introduce broader interpretive themes.

Materials & Design

In all facilities and landscapes, materials will be carefully selected, details will be finely crafted and views will be creatively framed to bring to light specific aspects of each site, the surrounding landscape, or its cultural history. Creative, thoughtful design of places and crafting of experiences can often be the most effective way to bring the history of a place through to the contemporary visitor. In the natural history park, materials and details of all structures and elements will reflect and celebrate the estuarine environment and the diverse cultural history.



Vancouver Landbridge, Fort Vancouver, Washington
Jones & Jones



University of Washington, Bothell. Wetland Restoration
L.C. Lee & Associates, OTAK

Wayfinding, Panels & Digital Media

At the finest scale of direct interpretation — wayfinding and signage — interpretive panels, web-based digital tour guides or wayfinding points, and walking tour brochures can be integrated into access points or hinge points of any size. These elements will be used to weave the connective thread that ties all elements of the park together into a cohesive whole. Visitors will be able to begin their experience of the natural history park at any interpretation point within the fabric of the park. Taken a step further, this finest level of interpretation could be thought of as a brand that marks all cultural and natural aspects of the park as part of a common, interdependent whole.



Trail marker



Trail marker and way finding



Trail post art



Interpretive sign, Oregon coast



Interpretive signs, Oregon coast

Kiosks, Shelters and Gathering Spaces

At a slightly larger scale, kiosks, shelters and overlooks at specific access points and hinge points will provide a more comprehensive introduction to the park. Kiosks could be used to tell site-specific stories while also linking visitors directly, through maps and stories, to aspects of the larger park system.



Sherman Pass kiosk, Washington
U.S Forest Service



Mountains to Sound Greenway kiosk
Jones & Jones



Outdoor campfire ring, Cedar River Watershed Interpretive Center
Jones & Jones



Overlook shelter on Highway 101, Oregon



U.S. 93 overlook at Flathead Lake, Montana
Jones & Jones

Interactive Elements & Citizen Science



Crabbing along the Oregon Coast



Cedar River Watershed Education Center, Washington
Jones & Jones



Historic map of shoreline in the field



Introductory bird-watching class



Monitoring stream water quality for mercury
Sarah Nelson

At a limited number of sites within the park system, interactive elements will be introduced to highlight specific ecological aspects of the landscape and invite visitors to the park to contribute to their understanding of the area by becoming citizen scientists. For example, fluctuations in tide levels could be recorded by passers-by at a number of sites around the estuary, drop-boxes for reporting bird sightings could be included at popular birding areas, or web-based tools could be used to record fish counts during coho spawning season or elk sightings along Highway 101. Regardless of the type of interactive experience, these encourage people to become engaged in the local living landscape.

Centers, Exhibits & Programs



Interior exhibits at Cedar River Watershed
Jones & Jones



Wet lab and classroom at Cedar River Watershed
Jones & Jones



Kids porch/treehouse at IslandWood, Washington
Mithun



Mercer Slough Environmental Education Center,
Bellevue, Washington
Jones & Jones



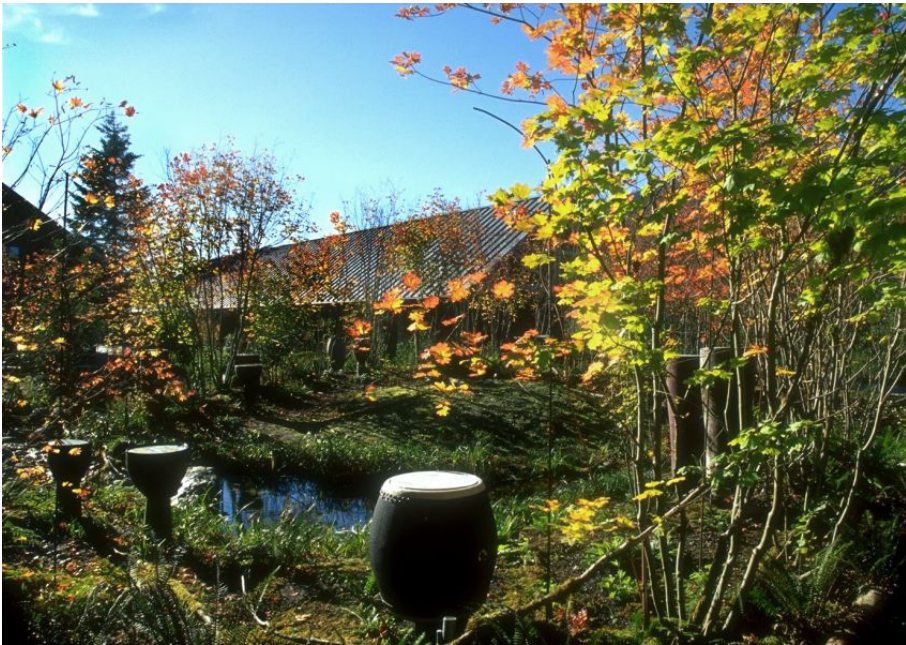
Vancouver Landbridge, Fort Vancouver, Washington
 Jones & Jones

ART IN THE PARK

Throughout the Necanicum Estuary Natural History Park, opportunities for incorporating artwork that celebrates the cultural and natural history of the area will be explored. Stories of people and their relationship to the estuary landscape could be expressed through music, oral traditional, digital, visual or sculptural arts. Throughout development of the park, student, amateur and professional artists will be engaged to participate in development of interpretive materials ranging from the design of wayfinding elements and signage, to design and construction of park facilities, to development of participatory experiences and celebrations.



Community & Artists Work Together, Cesar Chavez Park, Seattle
 Jones & Jones



Rain Drums at Cedar River Watershed Education Center, Washington
 Jones & Jones

IMPLEMENTATION

Whatever the natural history park ultimately looks like, it should be something with power. Instead of an academic word like “natural history,” we could use a word like “community” and expand it.

– Tom Bender



Entrance marker at Vancouver Landbridge
Jones & Jones

Implementation of an estuary-wide vision plan will be complex because of the distributed locations of the interpretive facilities, the divergent stories centered within the estuary and the existing infrastructure plans and necessary improvements. Many people throughout Seaside have had visions of the park for a long time; they should be rewarded and encouraged to remain engaged with some priority projects as soon as possible.

Initial Priorities

The first step in implementation would be getting something in the ground. One alternative is to choose an inexpensive symbol of the natural history park, a wayfaring post or trail marker for example, and place these at every known hinge-point and accessible location identified in the vision plan. This step has the advantage of being inexpensive and covering a wide area. Community members could get involved in the placement and construction at each site. The markers should have distinctive symbols and colors to be identified as elements of the natural history park. They would be placeholders for future interpretive activity and trail construction on or to the site.

A concurrent or alternative first step would be to concentrate initial energy on one publicly visible site, Neawanna Point or the Mill Ponds for example, and put a more substantial placeholder there. This placeholder could be an enlarged kiosk that explains the estuary and the extent of the proposed project, or it could be a more formal outdoor gathering space whose completion is celebrated with a grand opening ceremony. Other events, such as those put on by the Clatsop-Nehalem Tribe, could be held here, building support for the park among diverse citizens.

Strategic Planning

PARALLEL PLANNING EFFORTS



Highway 101 through Seaside

Numerous planning efforts are currently underway in Seaside, Clatsop County and neighboring communities. In order to make the best use of the valuable time contributed by engaged citizens and the investment of City and other resources in planning processes, reviews and permitting, and the construction of infrastructure, the next phases of planning for the natural history park should make every effort to work in parallel with related planning processes. Current processes with overlapping goals, objectives, outcomes, infrastructure requirements and likely funding sources include the [Transportation System Plan](#), [Seaside tsunami preparedness planning](#), the [Seaside Chamber of Commerce's Natural History GIS Project](#), and the [Columbia Pacific National Heritage Area project](#), to name just a few. Working with or along side these related processes will reduce the time and resources lost due to duplication of efforts or the production of conflicting outcomes that require resolution downstream.

INTERPRETIVE AND GREEN INFRASTRUCTURE PLANNING



Cedar River Watershed Education Center

(Jones & Jones)

Other city-wide efforts to consider early in the planning process include the development of a city-wide (or natural history park-wide) [interpretive master plan](#) and a city-wide [sustainability/green infrastructure plan](#). These two types of plans will serve as invaluable decision-making tools during future phases of planning, design and implementation. When wading through a wealth of choices about which stories and associated facilities to develop at an interpretive site, or trying to determine which green infrastructure elements will have the greatest ecological or economic impact at specific locations within the city, these master plans expedite the decision-making process and ensure that outcomes are consistent with larger city-wide goals and objectives.

Phasing

The recommended first two phases parallel the initial priorities: start by placing small elements at all of the hinge-points and then concentrate the first building construction efforts at Neawanna Point.

PHASE 1

This phase includes placing small elements, such as markers, interpretive signs, kiosks and picnic shelters at the park's hinge-points, those significant places best suited for telling the natural and cultural history of the estuary. At many of the hinge points, the small landscape elements will be the final installation. At a few of the hinge-points, the landscape elements will act as placeholders, until something larger and more complex is built; these sites includes Neawanna Point, the Mill Ponds and the Upland Education Center.

PHASE 2

The first major building construction would be an interpretive and welcome center at Neawanna Point. Given the site's visibility and importance to the community, it is important for the natural history park to have a significant presence at the point. Care must be taken to ensure the center does not compete with the views of the estuary or the sensitive natural and cultural elements at and surrounding the point. A constructed interpretive and welcome center would serve as an initial focal point for future natural history park work and fund raising. By building the center early in the process, the City of Seaside would have a gathering place for natural history park education, support and community celebration.

PHASE 3

At the other end of Seaside, the Mill Ponds would be the site of another interpretive center and outdoor classroom. This interpretive center would be focused on environmental learning and the Seaside community. It would provide a counterpoint for the more outward focus of the Neawanna Point center. It may be that the structure at the Mill Ponds could be phased as well with an interpretive center added onto a previously constructed outdoor shelter and gathering space.



Artistic marker at rest stop at Vancouver Landbridge
Jones & Jones



Marker at Neawanna Point



Restored shoreline at Mill Ponds



View west over Seaside from the Mainline Trail

I would like to provide a wilderness experience right in our own city, where you can interact with people and see others in nature.

– Suzanna Kruger

PHASE 4

If future development at Seaside occurs, it will most likely be to the east on higher ground above town. Much of the area is currently undeveloped and out of the tsunami impact zone. An Upland Education Center would be the last phase of the natural history park. Either attached to an upland future school or as a stand-alone center and town overlook, the education center would be the most expensive component with the most conditioned or indoor space. By including the education center in the last phase, the City has the flexibility to construct the education center to coincide with future development and fund-raising campaigns.

ALL PHASES

During each phase of the project, there will be numerous trail connections and access points to be built to link the hinge-points and natural areas. The City will need to be opportunistic in their approach to trails, avoiding the most sensitive areas, reaching out to neighboring landowners, and maybe even acquiring easements along the river and in the foothills to further the natural history park goal of restoring connections.



Funding



Mill Ponds from the air

The Necanicum Estuary Natural History Park will require significant funds to construct and maintain. Small pre-fabricated structures, such as picnic shelters and kiosks, cost tens of thousands, while custom design structures with indoor rooms can approach and exceed a million dollars. At the other end of the cost spectrum, some landscape elements can be constructed and installed by volunteers or by skilled donated labor with minimal overall project costs. The fundraising strategy should be flexible enough to respond to the different park elements and implementation. Whether it is the City of Seaside pursuing the funding or a combined group of interested agencies and non-profit organizations, a wide net should be cast among the different potential sources for funds to construct the park.

CITY PARK FUNDS

Traditionally, public parks serving citizens of a small town were constructed with funds from local bonds or tax revenues. This may be a possibility for the City of Seaside for at least a portion of the design and construction costs, but is dependent on public and leadership support, tax revenue and other public works projects that require funding.

GRANTS

Grants are a popular source of funding for small city projects. Grant funding typically ranges from \$5,000 to \$20,000 rewards, although larger resources are available. The natural history park is situated well for grant funding due to the holistic approach to the design of the park. The City could pursue grants targeting estuary restoration projects, trail and interpretation installation, environmental education and Oregon history. Grant sources range from national programs, such as the Environmental Protection Agency's Environmental Education Grants that "enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality," to state and local programs, such as the Oregon Park and Recreation District's Recreational Trails Grants or the Oregon Heritage Grant Program.





Workshop participants on a tour of the Mill Ponds



Bulldozer forming windthrow mounds on a restoration project



Tour participants discussing Seaside opportunities

PARTNERSHIPS

As a coalition builds to support the Necanicum Estuary Natural History Park, each supporting partnership could yield additional funding sources. Potential partnering agencies include the local school district, the National Park Service, the Clatsop-Nehalem Tribe and the Oregon Department of Transportation. Potential partnering non-profit organizations include the Oregon Zoo, the North Coast Land Conservancy, the Necanicum Watershed Council and the Seaside Chamber of Commerce.

IN-KIND DONATIONS

As different portions of the project become ready for installation, in-kind donations from local contractors and suppliers would decrease the cost of each interpretive element, making the available funds stretch to implement more of the park vision. In-kind donations require greater flexibility in the contracting and bidding process.

PRIVATE DONATIONS

Private donations include funds from private individuals and businesses with long-term connections to the Necanicum Estuary. This fundraising group requires high profile giving campaigns, recognition of large benefactors and constant park progress updates. It may also lead to greater community stewardship and personal investment in project implementation.

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