# SOUTH WIND MASTER PLAN

December 17, 2014

Prepared by the Master Plan Advisory Committee:

Liz Beckman Wendy Higgens (City Council Liaison) Beth Holland Jim Litherland Bob Lundy Mark Morgans John Nelson

Mark Barnes (City Planning Director) Dan Grassick (City Public Works Director)

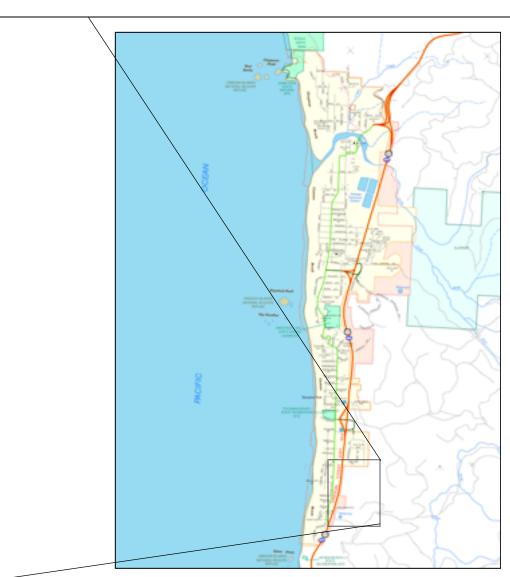


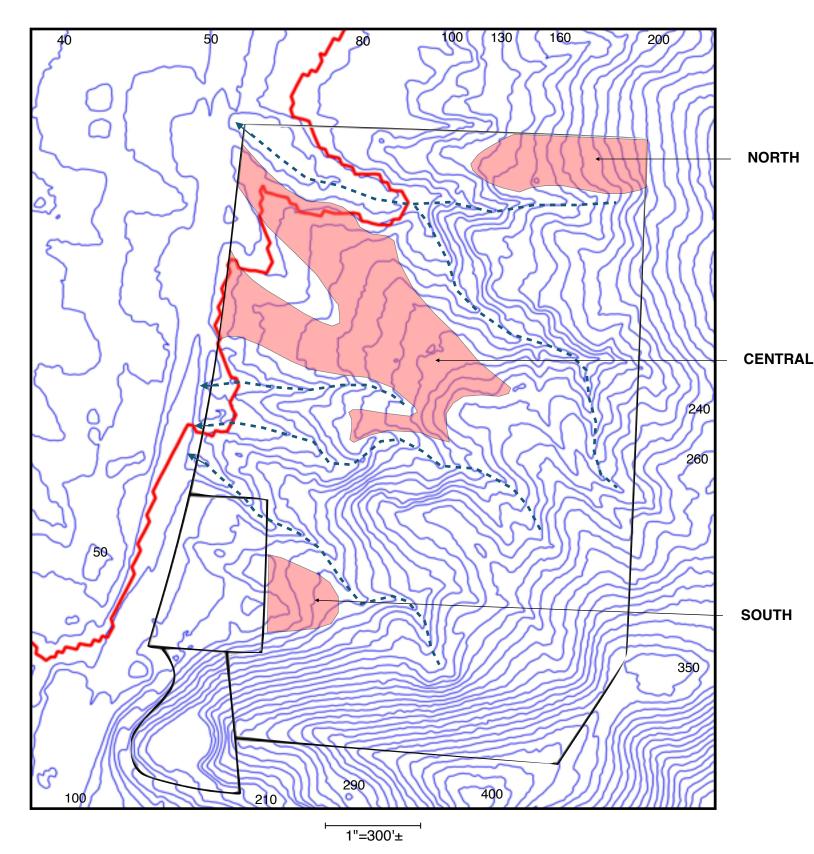
# **CURRENT CONDITIONS**

SouthWind consists of about 58.3 acres located east of Highway 101 and south of the Haystack Heights neighborhood. SouthWind is made up of two parcels. A 55-acre tract was acquired by the City from Campbell Global in 2013. A 3.3 acre parcel was acquired by the City from Clatsop County in 1990.

The site is vacant except for an existing 450 square foot garage used to store emergency supplies, visible near the southwest corner of the site.

The aerial photograph to the left was taken in 2013. Logging on the site was conducted in 2011 and 2013.





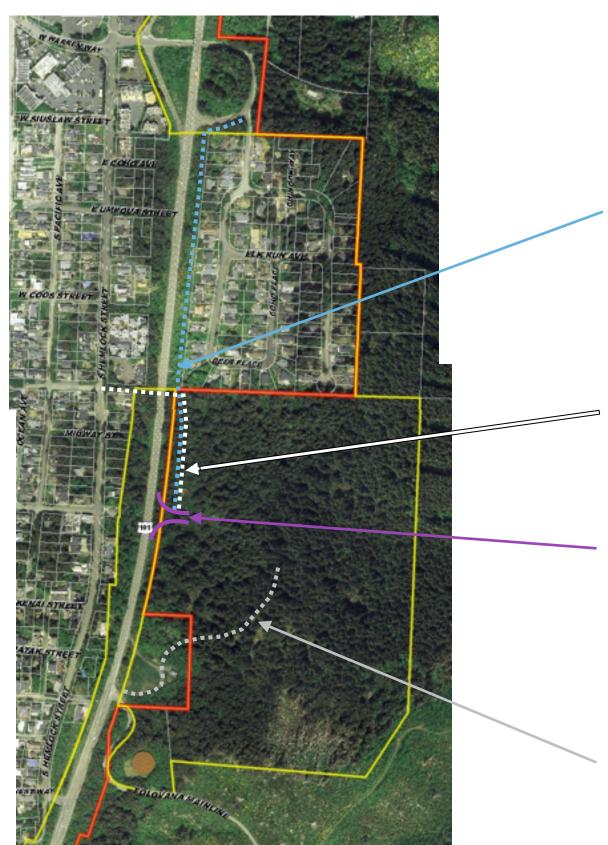
# Topography, Hydrology, Geology, and Tsunami Risk

This topographic map is based on 2011 LIDAR data. Ten-foot contour intervals are shown. Elevations on the site range from about fifty feet above sea level near the site's northwest corner, to almost 400 feet near the site's southern boundary.

The Tsunami Inundation Line is shown as a solid red line on this map. It is based on data developed by the Oregon Department of Geology and Mineral Industries (DOGAMI) in 2013. Several different risk levels were considered; shown is the inundation line for a tsunami generated by the largest predicted Cascadia subduction zone earthquake. Lands to the west of this line (that is, toward the left side of the map) would be inundated by this tsunami; lands to the east are above the estimated inundation line. The earthquake in this model releases fault slip built up over about 1,200 years; earthquakes of this magnitude are infrequent, and roughly equivalent to the 2011 Tōhoku tsunami. *The City will restrict construction of essential facilities on the SouthWind site to areas above the DOGAMI XXL inundation line.* 

A report prepared by Horning Geoscience in 2013 addressed geological hazards on the site. A copy of this report is included as an addendum to this master plan. The Horning Geoscience report evaluated three potential development sites on the property, shown on the map to the left. These areas are referred to as the North, Central, and South sites in the Horning Geoscience report, and are so labeled on the map to the left. The South site covers about one acre; the Central site about eight acres; and the North site about two acres. The report concludes that these three areas are potentially developable, assuming appropriate geotechnical engineering measures are taken. The report does not rule-out development on other parts of the site given appropriate engineering solutions to the site's geological limitations. *The City will require a site-specific geologic hazard study for each building, for road construction, and for any grading or filling on the SouthWind site.* 

The site drains to the west via several drainage basins. These are shown as dark blue dotted lines on the map to the left. Culverts beneath Highway 101 convey site runoff to the west. The City will maintain existing drainages and stream corridors on the SouthWind site. A ten-foot wide buffer is established on each side of each stream corridor. Where it is necessary to cross a stream corridor, the crossing will be designed to maintain stream corridor hydrology, and will comply with all applicable state or federal permit requirements.



1"=500'±

#### SOUTHWIND MASTER PLAN

## **ROAD AND UTILITY ACCESS**

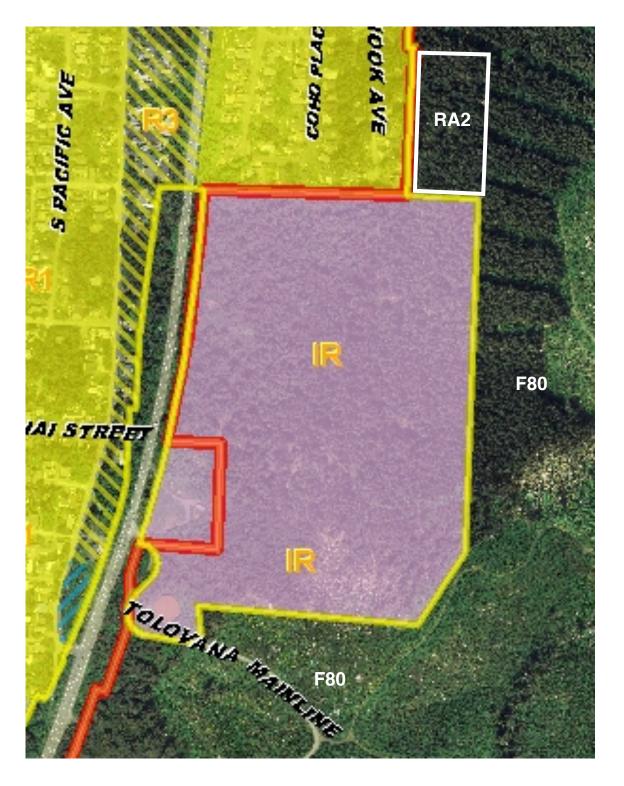
The SouthWind site has about 1,600 feet of frontage on Highway 101. East Chinook Street, a city street, ends at the site's north property line. The Tolovana Mainline, a privately-owned gated logging road, enters Highway 101 at the southwest corner of the site. Utilities (water, power, sewer) are in the Hemlock Street corridor, west of Highway 101.

**Pedestrian access** to the SouthWind site could be (a) via East Chinook; (b) via an easement from Deer Place; (c) across Highway 101 at or near the preferred road access point; or (d) on the east side of the Highway 101 right-of-way between Warren Way and the site, separated from the Highway 101 travel surface. Of these alternatives, the City prefers alternative (d) because it does not require pedestrians to cross Highway 101: avoids the need to purchase easements to reach Deer Place; avoids steep terrain at the south end of East Chinook Street; and uses established pedestrian facilities and the overpass at Warren Way. Estimated improvement costs for pedestrian access are about \$350,000. The City prefers pedestrian access to the SouthWind site on the east side of the Highway 101 right-of-way between Warren Way and the site, separated from the Highway 101 travel surface.

**City utilities** (water and sewer) can be brought to the site by boring beneath Highway 101. The preferred location is at Orford Street, at the property's northwest corner. Water and sewer system extensions onto the site, and including connections to the water tank to the southwest of the site, and to the existing water line on East Chinook Street, are estimate to cost about \$665,000. The City will integrate the SouthWind waterline extension with the existing water storage tank and with the water distribution system in the Haystack Heights neighborhood.

Access to Highway 101 will likely require a left turn refuge, a right turn deceleration lane, a right turn acceleration lane, shoulder enhancements, signage, lighting, and drainage improvements. A 2014 estimate of costs for these highway improvements is \$2.2 million. The access point location will need to be determined through a traffic study. The City prefers access near the central part of the site's frontage, roughly opposite Braillier Street. A shared access with the Tolovana Mainline is not preferred because of potential conflicts between log trucks using the Tolovana Mainline, and traffic such as school busses and emergency vehicles. Access via East Chinook is not preferred because neighborhood streets in Haystack Heights are not appropriate for regular emergency vehicle access; and because the topography at the end of East Chinook poses engineering, design and cost challenges for road construction. *The City prefers a location* roughly opposite Braillier Street for the primary highway access to the SouthWind site.

**Secondary/Emergency Access** can be provided via the existing access point at the southwest corner of the site. The existing highway access point at the southwestern corner of the SouthWind site is unsuitable for primary highway access due to the potential for conflicts with the Tolovana Mainline; however, this access point may be suitable for secondary or emergency access.



#### SOUTHWIND MASTER PLAN

# CURRENT CITY LIMITS, UGB, AND ZONING

The SouthWind property is currently inside the City Limits (the yellow line on this map), and outside of Cannon Beach's Urban Growth Boundary (UGB), shown as the red line. The entire site is in the City's Institutional Reserve (IR) zone.

Property to the immediate north, the Haystack Heights neighborhood, is in the City's Moderate Density Residential (R1) zone. Across Highway 101, to the west of the SouthWind site, is land in the High Density Residential (R3) zone.

To the east and south of the SouthWind property is forest land owned by Campbell Global. This property is in Clatsop County's Forest-80 (F80) zone.

About five acres of vacant land in the County's Residential-Agriculture-Two-Acre (RA2) zone adjoins the northeast corner of the SouthWind site.

The SouthWind property's location outside of the Urban Growth Boundary, and the current Institutional Reserve (IR) zoning designation, do not support most of the development described in this master plan. *The City will need to amend the UGB to include all or part of the SouthWind site within the boundary; and amend the zoning map accordingly, to accommodate the proposed development in this master plan.* 

1"=500'±



### PROPOSED DEVELOPMENT

The City intends to use the SouthWind site for critical and essential facilities and services because the property is largely above the reach of the largest predicted tsunami. The police station, fire station, day care facilities, a medical clinic, and the now closed Cannon Beach Elementary School are all within the tsunami inundation zone at their current locations. The City wishes to facilitate the relocation of the following buildings/facilities on the SouthWind site:

Police station Fire station School Child care/pre-school Food bank Emergency shelter/emergency operations center.

These facilities would be clustered in the area shown on the map to the left, and on the more detailed map on the following page.

The City should facilitate the location of new essential facilities above the tsunami inundation line. They include: police station, fire station, school, child care/preschool, food bank, and emergency shelter/emergency operations center.

Developed facilities on the SouthWind site should be clustered in the area shown in the master plan to preserve the largest possible forested area, and to avoid conflicts with adjoining land uses.

# **BUFFER**

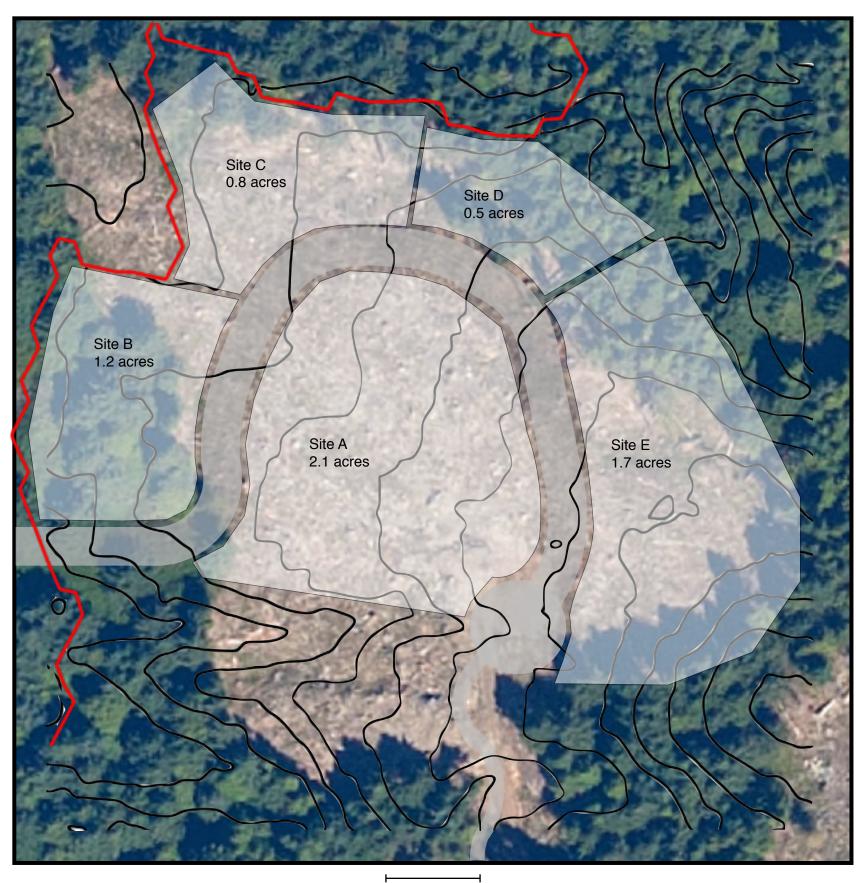
Separation from adjacent incompatible land uses can be achieved with a buffer area along the east and south boundaries. The dashed yellow line on the aerial photograph to the right represents the extent of a two-hundred foot wide buffer from the property line.

The City will maintain a two-hundred foot wide buffer along the east and south property lines to separate incompatible uses on the SouthWind site from commercial forestry activity on the adjoining property.

1"=300'±

#### SOUTHWIND MASTER PLAN

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# PROPOSED DEVELOPMENT

The road layout shown on this map is schematic only; its exact location and design will be refined based on more detailed site analysis and a traffic study. The acreage figures represent the approximate size of the shaded areas. These areas are somewhat arbitrary in size, configuration and location. All are above the tsunami inundation line, shown in red on this aerial photograph. All are entirely or largely within the central area evaluated by Horning Geosciences, and shown on the map on page 2 of this master plan.

**School:** The former Cannon Beach Elementary School (CBES) site covers about 2.2 acres. The City anticipates that between 1.8 and 2.1 acres will be needed for a school site. This estimate includes space for pre-school and day-care, activity space for grades 1 through 7, a library, administrative space, and gymnasium. Site A can meet the school's needs; however, it is not large enough to accommodate facilities that might be needed for field sports, such as soccer or softball. *The City shall reserve room for a school on the SouthWind site*.

**Fire Station:** The Cannon Beach Rural Fire Protection District's fire station at its current Cannon Beach location covers slightly more than half an acre. Any one of sites B, C, or D are large enough to accommodate a fire station. *The City shall reserve room for a fire station on the SouthWind site* 

**Police Station:** The Cannon Beach Police Department currently operates out of City Hall. The City estimates that space needs for the Police Department are slightly less than one-half acre. Sites B, C, or D are large enough to accommodate this use. *The City shall reserve room for a police station on the SouthWind site* 

**Emergency Services Facility:** The City may develop an emergency services facility on the SouthWind site. This could include storage space for emergency supplies, emergency shelter space, and/or emergency communications and support. The space needs for such a facility are uncertain; but the City believes any of the five sites shown on this map is large enough. A location near the southwest corner of the site may also be suitable for this use: see the map on page 1. *The City shall reserve room for an emergency services facility on the SouthWind site* 

**Food Bank:** A food pantry is presently located in the former CBES site. The SouthWind site is not an ideal location for a food pantry: the former CBES site is more conveniently located for clients. A site above the Tsunami inundation line has some potential advantages, particularly if the food pantry also serves as an emergency food storage facility. A food bank on the SouthWind site might be incorporated into an emergency services facility, or operate as a stand-alone entity. The regional food bank in Warrenton is operated on a one-acre site, so it is likely that any of the sites here could accommodate Cannon Beach's food pantry. *The City shall reserve room for a food pantry on the SouthWind site* 



#### SOUTHWIND MASTER PLAN

#### FOREST RESOURCES

This 2013 aerial photograph shows three areas where timber was harvested on the SouthWind site; and remaining stands of, primarily, Sitka spruce, western hemlock, and red alder. The area on the east side of the site was harvested in 2011. It covers about 12.3 acres. This harvested area extends off-site, to the east. This area was replanted with spruce and hemlock in early 2012. The central area was logged in 2013, and covers about eight acres. This central area is where most of the development is planned. The small southern clearing was also logged in 2013, and covers about 1.7 acres. These two areas were replanted with spruce and hemlock in January 2014.

Barry Sims, a consulting forester with Trout Mountain Forestry, prepared a memorandum for the City outlining management recommendations for the forested part of the SouthWind site. The memo is included as an appendix to this master plan. His recommendations include:

- likely be negligible.
- 2014 would be a good year to assess brush competition.
- removal will require uprooting and disturbing the road surface.

If the property is developed as shown on page 6, more than 40 forested acres would remain undeveloped, and potentially available for recreation, opened space and forestry.

The City shall prepare and adopt a forest management plan for the SouthWind site. Until a forest management plan is adopted, the City shall follow the requirements of its tree removal ordinance (Municipal Code Chapter 17.70) with respect to harvest or thinning operations on the SouthWind site.

1"=300'±

The remaining stand could be thinned to enhance views or to accelerate the development of bigger trees. Any such thinning would need to be carefully done to minimize the risk of blowdown. Thinning at this time is not recommended, as future goals for the site are not entirely clear, and with the recent harvest openings, some blowdown may occur in the next few years. A policy regarding blowdown would be advisable so the City can respond. Potential revenues from either a light thinning or small amounts of blowdown salvage would

The City is obligated under the Oregon Forest Practices Act to maintain the conifer plantations to ensure they are "free to grow" without being shaded out by brush. It appears that the earlier clearcut areas have been sprayed with herbicides at least once to give the planted trees a chance to become established. The more recent cut areas have not, and

The road that was either built or upgraded into the new clearings is already brushing in with alder and other vegetation. Mowing or spraying this road annually is recommended to maintain access and protect the road surface. If alder is allowed to grow large enough,