ARCH CAPE DOMESTIC WATER SUPPLY DISTRICT MINUTES

17 November 2017

A quorum was present.

Water Board: Virginia Birkby, President

Ron Schiffman, Vice-President

Debra Birkby, Treasurer

Dan Seifer

Sanitary Board: Darr Tindall (non-voting)

Casey Short (non-voting)

Public: Andrew Spaeth, Sustainable Northwest

Ben Dair, Sustainable Northwest David and Jeannie Stockton

Staff: Phil Chick, District Manager

Steve Hill, Secretary

Ms. Virginia Birkby opened the meeting at 6:00pm.

Public Comments: None.

Agenda: Add open board seat to new business and district boundaries to old business. Mr. Seifer moved acceptance of the agenda as amended which was seconded by Ms. Debra Birkby. All in favor. Motion carried.

Consent Agenda: Ms. Debra Birkby moved acceptance of the consent agenda which was seconded by Mr. Seifer. Ms. Virginia Birkby, Ms. Debra Birkby and Mr. Seifer voted yes. Mr. Schiffman abstained. Motion carried.

Old Business:

Watershed Update: (Information)

OWEB Grant: Mr. Chick reported that he had worked with Mr. Ben Dair with little time provided for revision to work up the final edits of the grant application. He expressed his appreciation to Ben in responding so quickly to ODFW's feedback and expected to know the results for the grant application by early February of next year.

Mr. Ben Dair thanked the district for addressing their concerns on what are the acceptable riparian buffers.

Mr. Chick referred to the Ecotrust Forest Management (EFM) management plan (attached) which he felt was a great resource and addressed larger stream buffers and avoiding chemical application use and logging of steep slopes. He said he would like to learn more about timber harvesting intentions.

Mr. Ben Dair reported that a grant application had been submitted to the Oregon Watershed Enhancement Board for contractor support for a public outreach process. Stakeholders were clearly named in the draft and Arch Cape would potentially be one of three focus project areas along with Rockaway Beach and Lincoln City. Vulnerability assessments would help establish priority of funding.

Mr. Seifer asked for a forester review of the EFM forest management plan and Mr. Andrew Spaeth said that it could be paid for within the existing grant. Ms. Debra Birkby expressed an interest in getting a breakdown of the grants associated with the watershed acquisition project.

Mr. Ben Dair indicated that the amount of property to be acquired has not been determined yet and wished to stay away from hard numbers other than stating it would be approximately 2,100 acres.

There was a need expressed to determine whether Cannon Beach should be involved as a stakeholder since some of the property considered drains to Cannon Beach.

Public Engagement Strategy: General discussion ensued regarding an effective public engagement strategy (attached) including development of a strategy with Sustainable NW for consideration at the next meeting, the potential of a community website and refinement of the statement regarding the acreage to be acquired. Mr. Ben Dair said that in late May or early June a community forest conference in Astoria would take place which would be good to attend.

Public Outreach Message: (Action) There was a general discussion of the best possible wording for the public outreach message.

Mr. Seifer moved for the adoption of the public outreach message to read, "Our vision is to provide clean safe and affordable drinking water to residents and visitors of Arch Cape, through the creation of a working community owned forest to sustain the rich character and beauty of Oregon's coastal rainforest for generations." The motion was seconded by Mr. Schiffman. All in favor. Motion carried.

District Logo & Letterhead: (Action) Consideration was given to logos (attached) provided by Micah Cerelli Mastrandrea.

Mr. Seifer moved adoption of the logo with the castle rock center design surrounded by teal as shown by the logo in the sample sheet upper left hand corner to include use in the letterhead which was seconded by Mr. Schiffman. Ms. Virginia Birkby, Mr. Schiffman, and Mr. Seifer voted yes. Ms. Debra Birkby voted no. Motion carried.

Second Water Source Project Update: (Information) A property owner near the end of Hemlock was not willing to have his property subdivided or lose property access due to well setback requirements so would need the land purchased eliminating this option while those owners on the lower end of Hemlock would only agree to accessing their well in an emergency. The Shark Creek gate owner had not responded to inquiries. Mr. Chick recommended going forward with drilling a test well near the water treatment plant under the planning grant and will contact Mr. Curt McLeod for selection of a site and contractor.

Open Board Seat: (Information) It was reported that Linda Murray was willing to consider becoming a director and would be attending the next meeting. An application form would be provided to her.

New Business:

Cannon View Park (CVP) Intergovernmental Agreement (IGA): (Information) Mr. Chick reported that he had been working with the CVP president, Mr. Richard Gibson for an updated IGA (attached) beyond the original agreement providing for mutual support in providing water for more specifics which would include coverage of cost sharing as well as staff services. Mr. Chick said he would work with Mr. Schiffman in further revising the IGA.

Emergency Road Use Agreement – L & C Tree Farms: (Action) Ms. Debra Birkby moved approval of the emergency road use agreement with L & C Tree Farms (attached) which was seconded by Mr. Schiffman. All voted no. Motion failed.

Website Development – Community Forest Project: (Action) Action on the proposed website development plan (attached) was deferred to the next meeting however Mr. Andrew Spaeth said acquisition of a domain main could be made before taking action on the plan.

Truck Purchase: (Action) Ms. Debra Birkby moved to authorize the District Manager to purchase the truck of his choice (attached) to include the additional items under consideration which was seconded by Mr. Seifer. Ms. Virginia Birkby, Ms. Debra Birkby and Mr. Seifer voted yes. Mr. Schiffman voted no. Motion carried.

Mr. Seifer further moved that a draft be developed for a non exclusive fifteen (15) year lease with a lump sum payment made by the lessee to lessor of 54% of the purchase price plus a continuing share of the maintenance costs. The motion was seconded by Mr. Schiffman. All in favor. Motion carried.

District Boundaries: (Information) There was general agreement to research the possible addition of other properties to the district potentially including those held by Cedar Love LLC and LynScot Ventures LLC.

Ms. Virginia Birkby, Pre

Reports:

Accounts Receivable: A/R was reported to be in good condition. The Board asked to be updated on signed payment agreements.

District Managers Report: (attached)

Treasurer's Report: The Columbia Bank checking account was reported at \$113,073 and the account with LGIP at \$45,590.

Board of Directors' Comments and Reports: Mr. Mr. Seifer thanked Sustainable NW for the continuing good work they are doing.

December Agenda Items: (Information) Boundaries and new board member. It was noted that Mr. Dair and Spaeth were gone in December.

Public Comment: Ms. Jeannie Stockton commented upon the proposed updated IGA with CVP. She felt that some of the language was ambiguous and left costs of administering this agreement with the district when it needed to be clear how those expenses would be shared with CVP. Mr. David Stockton said he thought the separate district structure in Arch Cape was only there to accommodate CVP and their wish to save on water costs while those resources which were available between the districts were unequal given that they had water sourcing at six (6) gallons per minute versus those much more substantial sourcing flows available to the water district. Ms. Stockton agreed to share her comments and observations on the draft CVP IGA with Mr. Chick.

The meeting was adjourned by Ms. Virginia Birkby at 8:40pm.

Respectfully submitted,

Steve Hil



ONION PEAK HOLDINGS PROPERTY MANAGEMENT PLAN

NOVEMBER 2017 – PUBLIC DRAFT 1



Property Summary Information

Date: July 2017 **Property Name: Onion Peak Holdings Planning Period:** 2017-2021 **Legal Description:** Sections 20, 21, 28, Parts of Sections 18, 19, 22, 27, 29-34, Township 4 North, Range 10 West, Clatsop County, Oregon. Parcels: 410000000627, 410000004500, 41030D000300, 410000000623, 410000004600, 410000004800, 410000000614, 410000005300, 410000000615, 41000000616, 410000000617, 410000000618, 410000000622, 41000000621, 410000000620, 410000000619. **Total Acreage:** Onion Peak 3,722 acres, Angora Peak 1,333 acres **Date Purchased:** November, 2016. Prior Owner(s): Stimson Lumber, Weyerhaeuser, Willamette Industries, Hampton Natural Resources Co., Cavenham Forest Industries. **Adjacent Lands:** Small private forest landowners, Weyerhaeuser, Lewis & Clark Oregon Timber LLC, Oregon State Parks, Oregon Department of Forestry, Arch Cape Sanitary District, Cannon View Park Inc, Oregon State Department of Transportation, Clatsop County **Conservation Initiatives:** North Coast Land Conservancy – Coastal Edge Conservation Initiative Within landscape of Oregon Conservation Strategy Conservation Opportunity Areas including North Fork Nehalem River, Tillamook Head & Necanicum River. **Fire Protection Entity:** Oregon Department of Forestry (ODF) Northwest Oregon North Zone Topography/Elevation: Gentle to moderately sloped lands in western portion of the property giving way to steeply sloped and dissected ridges and peaks. Elevation ranges from 40 to 3,060 feet. **Geology & Soils:** Silty loams, gravelly loams, and rock outcrops. Underlying rock are basalts and breccias along ridges and sedimentary and sandstones and siltstones in lower lying marine terrace areas. **Water Resources:** 81 miles of creek. Northwestern, southwestern and southeastern parts of the property drain into streams emptying directly into ocean, northeastern lands flow into the Ecola Creek Watershed, while a small part of the eastern edge is situated within the Lower North Fork Nehalem River Watershed,

small area along southern boundary drains into Short Sands Creek. Parts of Shark, West Fork Ecola Creek, Asbury, and Arch Cape and tribs are classified as fish bearing. Coho, chum, steelhead, and cutthroat trout on Ach Cape Creek. Common native resident fish on other creeks, Hwy 101 culvert blocks anadromous use on Shark/Asbury Creeks. Approximately 23 acres of riverine and freshwater forested/scrub wetland per National Wetland Inventory.

Property Summary Information (Continued)

Vegetation Types: Mid/Late Rotation Conifer Forest (58%), Early Rotation Conifer (42%). Stand

composition in both young and older stands is predominantly Western hemlock & Sitka spruce, while Douglas-fir, Western redcedar, Pacific silver fir,

& red alder are minor species.

HCVF/RSA: Fish bearing riparian habitats are designated as High Conservation Value

Forest (HCVF), the conservation easement area at the summit of Onion Peak

is designated as a Representative Sample Area (RSA).

Site Index: Mostly site class 3 & 4 (98%).

Operability: Ground-based: (25%), Cable-based: (71%), Helicopter (4%)

Road System: 42 miles of mapped road. Road network in good condition overall with two

noteworthy slumps and some drainage improvements primarily needed in

the upper parts of the Property.

Known Rare Plants and Habitats: 8 species of rare plants known to occur on the property, occurring mostly on

ridgetop outcrops.

Focal/At-Risk

Fish & Wildlife Species:

11 bird, 12 mammal, 6 amphibian, and 6 fish species current or future,

potential occurrence.

Recreation: Past use has been mostly non-motorized use including hiking, biking and

horses. Some motorized-based hunting has been allowed in the past.

Management Strategies: Vegetation: Manage recent harvest units for high quality early seral, maintain

mature forest structural features in retention areas including riparian buffers to voluntary FSC standards in mid/late rotation forests. Protect rare plant habitats including ridgeline outcrops and meadows, and petal tail seeps.

Water Resources: Protect water quality for municipal use by buffering streams and wetlands to FSC standards, avoiding herbicide use in sensitive areas, and applying best management practices for roads to minimize

sediment production and delivery to streams.

Roads: Maintain road network for efficient management operations and fire control. Implement best management practices to minimize sediment flows

into streams.

Fish & Wildlife: Identify opportunities to improve fish passage. Restrict vehicle access by the public, promote early seral habitats and develop mature forest structure. Retain all remaining old growth stumps, down logs, and

snags.

Recreation and Scenic Resources: Non-motorized access. Horses, bikes, and

predator hunting are not allowed.

EFM

721 NW 9th Avenue, Suite 200

Portland, Oregon 97209

www.ecotrustforests.com 503.467.0829

Table of Contents

PROPERTY SUMMARY INFORMATION	1
INTRODUCTION	1
Purpose and Need	1
Plan Structure	1
LOCATION, LANDSCAPE, AND ACCESS	2
LEGAL OWNERSHIP AND EASEMENTS	4
OWNERSHIP HISTORY AND USE	4
DESIRED FUTURE CONDITIONS	5
GOALS AND OBJECTIVES	5
RESOURCE ASSESSMENT	7
Physical Environment	7
Climate	7
Topography and Soils	7
Water Resources	8
Vegetation	9
Overview	9
Stand Descriptions	11
Disturbance Regimes	14
Rare and Listed Plants	14
Noxious and Invasive Species	15
Non-Timber Forest Products	
Reference Conditions and Consistency with DFC and Trajectory Conditions	
FISH AND WILDLIFE	
Overview	
Classified and Priority Habitat Fish and Wildlife Species	
Other Special Management Species	
Infrastructure	
Road System	
Structures and Utilities	
Water Sources for Fire Control	
Rock Pits	
COMMUNITY	
Socio-economic Conditions	
Adjacent Landowners	
Community Partners and Outreach	
Recreation	
Aesthetic and Scenic Resources	
Archeological/Cultural Resources	
SUMMARY OF LIMITING FACTORS, OPPORTUNITIES, AND INFORMATION NEEDS	23
MANAGEMENT STRATEGIES AND IMPLEMENTATION	
GENERAL FOREST	
RIPARIAN AND OTHER SPECIAL MANAGEMENT AREAS	
DISTURBANCE REGIMES	
Insects and Disease	
Fire Prevention and Control	26

Other Abiotic Agents: Windthrow and Landslides	26
NOXIOUS AND INVASIVE SPECIES	26
FISH AND WILDLIFE	
INFRASTRUCTURE	27
Road System	27
Structures and Utilities	
COMMUNITY	27
Outreach	27
Recreation	
Aesthetic and Scenic Resources	28
Archeological/Cultural Resources	28
Economic Opportunities	
Log Markets and Non-Timber Forest Products	28
MONITORING	28
APPENDICES	32
A- References	32
B- Property Contacts	33
C- PROPERTY STAKEHOLDER ADVISORS	34
D- EASEMENTS	35
E- SOIL TYPES	37
	1
F- HCVF AND RSA	1

TABLES

- Table 1. Goals and Objectives
- Table 2. Property Contacts (Appendix B)
- Table 3. Soil Types and Management Characteristics (Appendix E)
- Table 4. State/Federal/ORBIC Listed Plant Species
- Table 5. State-listed Noxious Weeds
- Table 6. State/Federal/Oregon Conservation Strategy Classified Fish & Wildlife Species
- Table 7. Limiting Factors and Opportunities.
- Table 8. Management Strategies
- Table 9. Management Actions Schedule

MAPS

- Map 1. Onion Peak Holdings and Vicinity
- Map 2. Tax Parcels on the Onion Peak Holdings
- Map 3. Topography of the Onion Peak Holdings
- Map 4. Soil Types on the Onion Peak Holdings (Appendix E)
- Map 5. Creeks and Wetlands on the Onion Peak Holdings
- Map 6. Stand Age Classes on the Onion Peak Holdings
- Map 7. HCVF and RSA on the Onion Peak Holdings (Appendix F)
- Map 8. Roads and Trails on the Onion Peak Holdings

Introduction

Purpose and Need

The Onion Peak Holdings are situated in Southwest Clatsop County along the Northwest coast of Oregon (see Map 1). This Property Management Plan (PMP) includes both the Onion Peak (3,722 acres) and Angora Peak (1,333 acres) properties and is referred to as "Onion Peak Holdings" or "Property" in this PMP (see Map 2).

The Property provides water to four communities, contains unique botanical and geologic features, and encompasses nearly the entire watershed of several coastal streams. These lands border protected state parks and buffers these mature forest habitats, while the upper ridges and slopes provide viewsheds. It is a well-visited landscape with potential to provide a mix of recreational opportunities and is an important component of the North Coast Land Conservancy's Coastal Edge strategy. The lower lying areas of the Property provide an outstanding opportunity to demonstrate community forestry that recognizes the wide range of values this land can produce. Past management has degraded the Property's forest and water resources. This management document identifies opportunities for active, innovative, stewardship that will enhance the ecological and financial values of the Property, towards the vision of a protected working landscape.

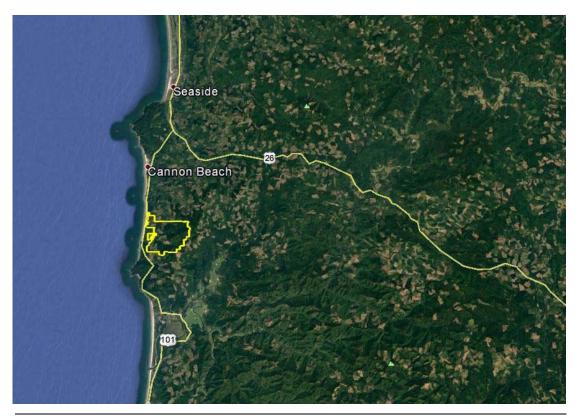
Plan Structure

This plan is organized into two main sections. The first assesses the current condition of natural resources, infrastructure, and human uses. The condition of natural resources including soils, water, rare plants, noxious weeds, and fish and wildlife is described. Infrastructure on the ownership (roads and bridges) and community resources are documented. A summary of limiting factors/issues and data needs for each resource is provided in Table 7 at the end of this section. In the Strategy/Implementation section that follows, Table 8 lists management strategies tiered to goals and objectives. Table 9 outlines actions in support of each strategy over the five year planning window. Actions contingent on the securing of outside funding sources and partnerships are distinguished from core management activities. The Appendices provides supplemental information in support of the main document. Overarching policies governing the stewardship of this Property are documented in the EFM Forest Management Plan.

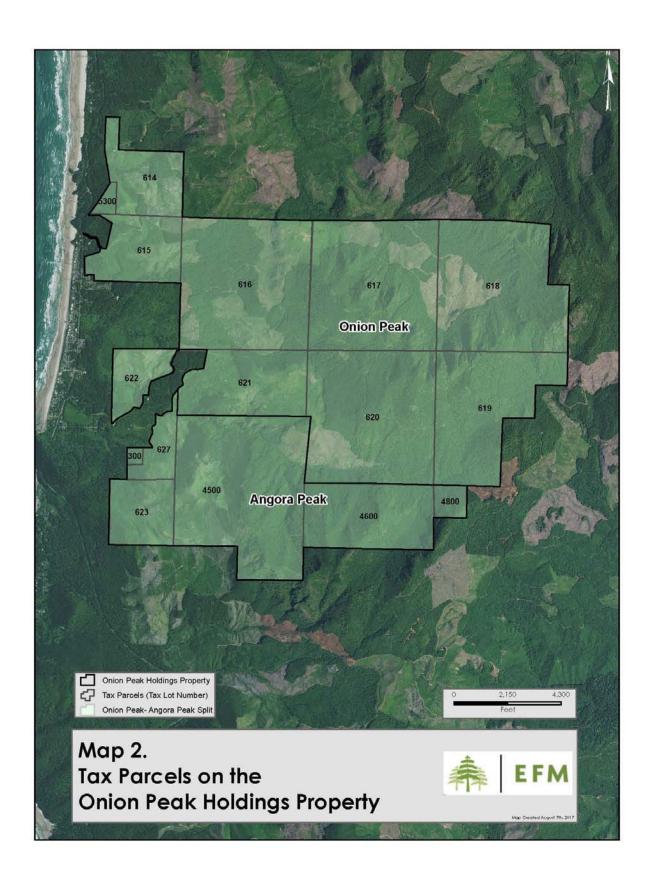
Location, Landscape, and Access

The Onion Peak Holdings are located four miles south of the popular coastal community of Cannon Beach and about 60 miles northwest of Portland. The property is bound to the north, east and most of the south by industrial timberlands (Lewis & Clark Timberlands, and Weyerhaeuser) and state forest. The western boundary is a mixed ownership of Oregon State Department of Transportation, Cannon View Park Inc., Arch Cape Sanitary District, Oregon State Department of Parks and Recreation (Hug Point and Oswald West State Parks), and small private lots. The greater landscape contains a mix of industrial and state forestlands except along a narrow coastal belt of small private woodlots, beach communities and municipal and water district lands, and state parkland.

There are three main access points to the Property, all entering from Highway 101. The main access to the Onion Peak Property is via Hug Point Road (gated). This is a direct access as the Property intersects Highway 101. Access via the central part of the Onion Peak Property initiates from Shingle Mill Lane and enters the property just past the Arch Cape wastewater treatment facility (gated). This road is public but there is a short privately owned stretch of road just before



Map 1. Onion Peak Holdings (yellow boundary) and vicinity.



entering the Property directly across from the wastewater facility. The main access to the Angora Property is from the gated Falcon Cove Road. The approximately 1.25 mile access road leading up to the gated entrance along the south property boundary is owned by Weyerhaeuser.

There are several other secondary access points to the Property. The Tolovana/Hug Point mainline enters the property from Lewis & Clark Timberlands at the north end of the Property. Two spurs enter the northwest corner of the Property from Lewis & Clark Timberlands, also via the Hug Point Road. The High Side Road enters the northeast corner of the Property from Lewis & Clark Timberlands and ends along the western Property boundary. This road is non-passable. A second road (Rock Crusher Road) enters the property below and to the west of the High Side Road and connects with the Side Seven Road. This road is not passable. Arch Cape Mill Road (just west of the wastewater facility) used to provide access to the Angora Property from Arch Cape Sanitary District land. Passage is now prevented due to removal of the bridge on Arch Cape Creek. Entry from Arch Cape Mill Road from the south (via Weyerhaeuser land) is uncertain but the road appears from aerial imagery to be non-passable.

All access points to the property are controlled with locked gates.

Legal Ownership and Easements

The Property was purchased in November 2016 by Ecotrust Forests II, LLC. The Onion Peak Property is owned by Onion Peak, LLC. Angora Peak is owned by Ecotrust Forests II, LLC. Ecotrust Forest Management (EFM) is the manager of the Property. The main easements that concern management of the Property are described below. Arch Cape Water and Service Districts has an easement to run utilities to their lands for wastewater discharge and access for bio-solids dispersal. Cannon View Park Inc., has an easement to access its water storage tanks and spring box on Hug Point Roads. The North Coast Land Conservancy (NCLC) has a conservation easement to protect rare plants in part of Section 22. Greenwood Resources and Weyerhaeuser have a right of way agreement to access their adjacent lands and use of tailholds/tower guylines on the property. This and other easements are listed in Appendix D.

Ownership History and Use

Prior to purchase by Ecotrust Forests II, LLC the Property was owned by Stimson Lumber Company, which bought the ownership from Weyerhaeuser in 2004. Weyerhaeuser acquired these lands when it purchased Willamette Industries in 2002. Prior owners included Hampton Natural Resources Co. and Cavenham Forest Industries. The Property was initially logged extensively in the 1960s. A cedar mill (Arch Cape Shingle Company) located in the current location of the Arch Cape wastewater treatment plant processed logs from the Property for decades until it burnt down in 1967. A railroad line was constructed during the early period of logging to move logs to local mills. A second round of logging initiated in the early 2000s and accelerated after 2005. Most of the western half of the property was harvested by 2014. Between 2014-16 harvests were mostly concentrated in the northeast corner of the Property. Intensive commercial forestry has been the predominant use on the Property. Harvested stands have been planted and supplemented with natural regeneration. In recent years, herbicide use

has been limited to areas outside of domestic watersheds. Salvage of old growth cedar logs and stumps has been occurring for several decades. Rock pits have been developed during periods of logging for road building and maintenance. Use of the Property by Native Americans is unknown.

Desired Future Conditions

Desired Future Conditions (DFC) are based on the underlying goal of EFM to rebuild ecological, community, and financial capital in its forest holdings. The Property provides a unique opportunity to serve this goal while benefiting the larger landscape.

Desired Future Conditions for the Property include:

- 1- Mix of mature and younger forests with a native tree species and understory composition, minimal noxious/invasive species, and appropriate levels of dead wood to maintain associated fish and wildlife species. Mature forests are concentrated in riparian zones, steep, rocky slopes and other retention areas.
- 2- A road system that is maintained to minimize sediment delivery.
- 3- Forest conditions that maintain the aesthetic qualities of the viewshed and low-impact recreation values.
- 4- A forest that provides a wide range of products including high value wood and ecosystem services.

Goals and Objectives

The Property is managed according to the core principals of Ecotrust Forest Management, which seek to build both conservation and social values, while providing adequate risk-adjusted financial returns to its investors. Property goals and objectives are provided in Table 1. Core goals and objectives include maintaining roads and protecting the property from risks. Habitat related goals and objectives will be enacted as external funding allows.

Table 1. Property Goals and Objectives

#	Goal	#	Objective
	Achieve financial targets while	1.1	Diversify income sources by combining harvesting with alternative revenue sources.
1	meeting 1 certification standards and protecting the investment.	1.2	Build standing volume with extended rotations for premium log markets where financially viable.
		1.3	Manage Property consistent with FSC standards.
		1.4	Protect the Property from fires and other major disturbance agents and increase resilience in the face of climate change.
2	Improve habitat for native wildlife including focal	2.1	Develop/maintain older forest characteristics across Property where financially viable and/or conservation funding is available.

#	Goal	#	Objective
	management and at-risk species.	2.2	Maintain/Increase diversity of minor tree species including Western red cedar and native hardwoods.
	_	2.3	Encourage high quality early-seral habitat in existing harvest units.
		2.4	Enhance riparian habitats for anadromous and native resident aquatic species.
	_	2.5	Protect special/unique habitats including old forest, wetlands, and other riparian areas, and known rare plant populations where funding is available.
		2.6	Reduce noxious and invasive weeds.
3	Maintain road infrastructure while minimizing	3.1	Maintain road network necessary to facilitate management access for fire and weed control, tours, inspections, planning, harvests and other silvicultural treatments.
	environmental	3.2	Reduce sediment delivery from roads and drainage structures.
	impacts.	3.3	Reduce road impacts to wildlife.
	Manage forests and roads to	4.1	Reduce sediment delivery from roads and drainage structures with domestic watershed. See 3.2
4	maintain quality of domestic water supply.	4.2	Work with Arch Cape Water District, Cannon View Park, Cannon Beach Public Works and Falcon Cove Beach Domestic Water Supply District to maintain desired water quality.
	Contribute to local	5.1	Employ local contractors and suppliers wherever practicable for harvests, road work, research, monitoring, habitat enhancement, and other activities.
5	conservation economy.	5.2	Identify opportunities to enhance the benefits the property provides to local residents by allowing hunting, hiking, and biking.
	_	6.1	Seek public input and involvement in management activities by key stakeholders, such as tribes, resource agencies, neighboring landowners, and the North Coast Land Conservancy.
6	collaborative	6.2	Consult periodically with community members, indigenous peoples, forest researchers, neighboring landowners, and wood production facilities.
	management. –	6.3	Provide opportunities for public involvement and collaboration.
		6.4	Consult with tribes with interests in the property and co-develop access or monitoring programs where indicated.
	Encourage non-	7.1	Provide signage explaining access policy.
7	vehicular public access	7.2	Work with North Coast Land Conservancy to develop recreation uses consistent with their vision for the land.

Resource Assessment

Physical Environment

Climate

The Property has a maritime climate featuring relatively warm to cool and moderately moist summers and cool, wet winters. Average annual precipitation at sea level is about 80" with most occurring between November and May. Average annual temperatures range from 45° F in winter to 56° F in summer. With an elevation gain of 3,000', the upper areas of the Property are cooler and moister than the low lying topography. Snow accumulation during cold winter periods is common and winds are extremely strong and persistent. These high winds are a significant management factor when designing silvicultural prescriptions to minimize windthrow.

Topography and Soils

The Onion Peak Holdings are situated in the Coast Range: Volcanics Ecoregion. The lower lying western areas of the property are mostly gradually sloped and underlain by sedimentary rocks (see Map 3). These areas give rise to steep and dissected extrusive igneous ridge and peaks composed of breccias, basalt flow rock and pillow basalt. Onion Peak is the most prominent



Map 3. Topography of Onion Peak Holdings (map facing east, Arch Cape in foreground).

landmark of the Property and part of an impressive U-shaped ridge system that forms a cirque. Other defining topographic features of the Property include a steep east/west running canyon formed by Arch Cape Creek and the prominent ridgeline that includes Angora Peak (which is situated just south of the ownership. Elevation ranges from 40' at the extreme west edge of the Property to a highpoint of 3,060' on Onion Peak.

The present topography was formed as the result of a rising seafloor which exposed the sedimentary layer that forms much of the bedrock on the property. Also exposed during this lifting were the volcanic flows that originally erupted and cooled under the ocean. These igneous layers (basalt flows and pillows and breccia) have subsequently been shaped into steep ridgelines with rocky outcrops and pinnacles from weathering.

There are 12 major soil complexes on the Property (see Map 4, and Table 3 in Appendix E). Laderly-Rock outcrop complex is the dominant soil complex on the Property occupying Onion Peak and surrounding ridges and upper slopes (26% of Property). Murtip-Caterl complex (boulder), Skipanon gravelly silt loam, and Killam-Fawceter-Rock outcrop combined comprise 37% of the Property.

Soils generally consist of silty loams and gravelly loams with a depth to bedrock generally increasing at lower elevations and with lands to the west. Depth to a restrictive layer ranges from 0 -40" in Laderly-Rock outcrop complex and Killam-Fawceter-Rock outcrop complex in the property uplands to 80+ inches in the Klootchie-Necanicum complex found along the western property boundary. Parent materials are mostly igneous rock and most soils formed in colluvium. Lower lying areas to the west of Onion Peak contain sedimentary sandstones and siltstones. Soils along the western boundary are a mix of igneous and sedimentary formed from mass movements.

All soils except Grindbrook silt loam, Mues silt loam, and Walluski silt loam (combined <15 acres) are well-drained. Nearly the entire Property is susceptible to severe or very severe erosion on exposed compacted road and off road soils. The soil survey indicates a low to moderate risk of seedling mortality.

Soil survey productivity as measured by tree site index ranges from 111-136. The broad flat areas of the Property average around 105, while the slopes are 111. The weighted Property average site index is 116 (high site class 3). Soil productivity is highest in the northwest and western edge of the Property where soils are deepest and elevations are lowest. High winds on south and west exposed ridges and slopes, particularly at the higher elevations limit tree growth and biological productivity.

Water Resources

With its prominent high elevation ridges and slopes, the Property captures large amounts of precipitation, most of it flowing directly into the Pacific Ocean via a series of small coastal frontal watersheds. Nearly 82 miles of creeks occur on the property (see Map 5). The largest of these are Arch Cape (Large classified) which drains the south part of Property and Asbury and Shark Creeks (both Medium Classified), situated in the central part of the Property. West Fork Ecola Creek (Large) drains lands in the northeastern part of the Property and is part of the Ecola Creek Watershed. Part of the eastern slope of Onion Peak is situated in the Lower North Fork

Nehalem River Watershed. Part of the south slopes of Angora Peak drain into Short Sands Creek which eventually flows through Oswald West State Park. Fall Creek (Medium) drains the extreme north end of the Property. Steep topography and shallow soils create flashy hydrography, particularly during winter storms and in response to rain on snow events.

Approximately 23 acres of wetlands are mapped on the Property per the National Wetland Inventory. Most of this wetland is classified as riverine. Two small palustrine forested wetlands (totaling < 1 acre) occur at the lower end of Arch Cape Creek and along an unnamed tributary. Fish use on the property is discussed below (see Fish and Wildlife).

The Property provides domestic water to the following communities.

Arch Cape

Shark Creek provides water to the community of Arch Cape between the months of October and June. During the summer months, the intake is on Asbury Creek just east of Hwy 101. There are 280 connections to this water supply from a population that ranges from 150 residents to over 900 during the tourist season. The 2015 Arch Cape Domestic Water Supply District Water Management and Conservation Plan cites concerns for both turbidity and chemical contamination from forest management practices on industrial lands within the drainage (Chick 2015).

Cannon View Estates

Springs on the Property along the lower Hug Point Road provide water to Cannon View Estates subdivision. The drainage above this spring is owned by Cannon View Park Inc.

Cannon Beach

The West Fork of Ecola Creek is a summer water intake for the town of Cannon Beach.

Falcon Cove

The community of Falcon Cove uses water that drains off slopes in the southwest corner of the Property.

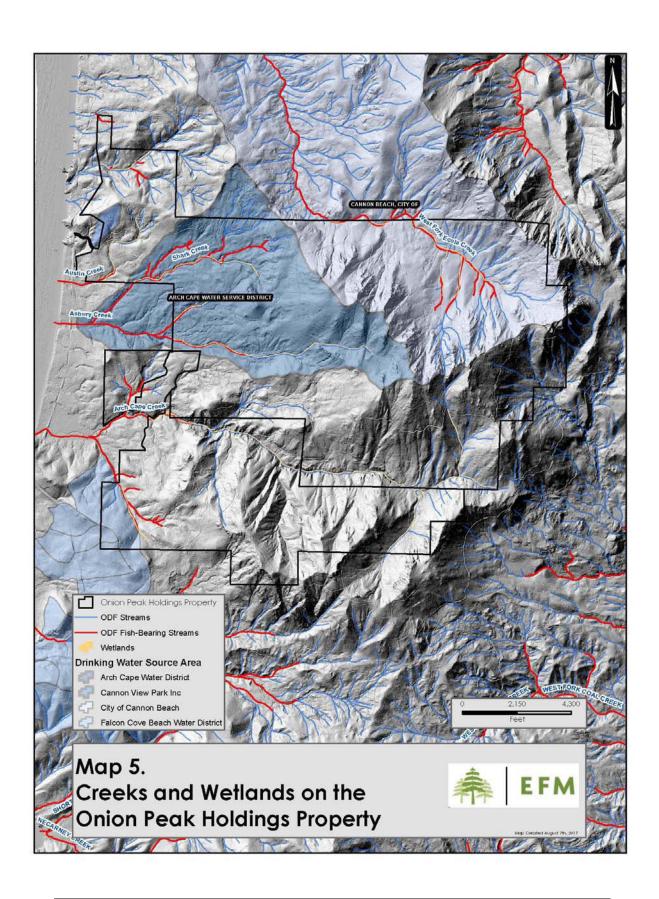
Other

Parts of Fall Creek and its tributaries and a small creek at extreme northwest part of the Property are domestic water sources. An unnamed creek in the southwest corner of the Property has a domestic use.

Vegetation

Overview

The Property is nearly completely typed as forest and contains a mix of newly regenerated and second / third growth coastal temperate conifer stands. Due to a dramatic elevation gradient, these stands span three forest zones (Sitka Spruce, Western hemlock, and pacific Silver fir). At its crest, rocky outcrops and meadows host several rare plant communities and contain some species found only in a few coastal locations.



Stand Descriptions

Structure and Composition

A total of 191 stands were delineated by the previous owner, most ranging in size from 1-142 acres (stand encompassing Onion Peak is notable exception at 683 acres). Most stands are dominated by Western hemlock, while Sitka spruce and Douglas-fir are common minor species. Pacific silver fir becomes common in mixed stands at higher elevations. Hardwoods mostly comprised of red alder with occasional bigleaf maple and black cottonwood are limited mostly to stream edges, inner canyons and roadsides.

Stand structure throughout the Property is nearly all single cohort and in either the stem exclusion stage or early seral stages of development. Approximately 55% of the gross acres are 10 years of age or younger and mostly distributed in the western half of the Property (see Map 6). Stands in the commercial age classes (40+ years) constitute 38% of total area, much of this on the upper elevation areas of Angora and Onion Peaks. According to the forest inventory, the oldest stand on the Property contains trees estimated at 70 years of age. Small patches of older forest are likely to occur scattered throughout on areas difficult to access by past logging.

Understory plant communities are often poorly developed in closed stands due to high tree densities. Typical composition may include low cover by sword fern, salal, salmonberry, vine maple, dwarf Oregon grape, and evergreen huckleberry. Recently harvested stands contain early-seral native and some non-native species (see Noxious and Invasive Species below). Pacific reedgrass is a typical dominant species along with common shrubs in newly planted areas.

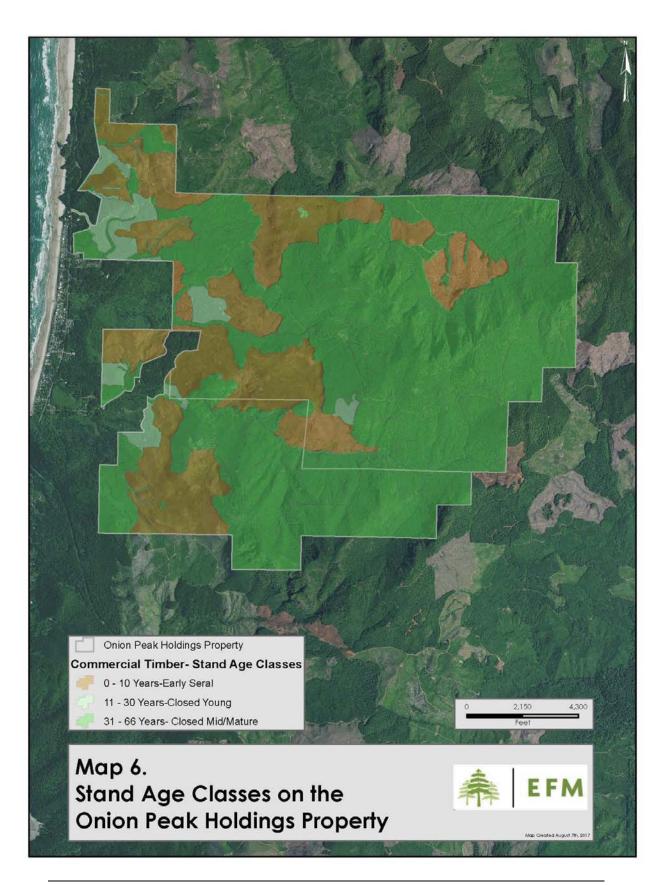
Less common plant communities on the Property are found on top elevation ridgelines and slopes. These thin soiled slopes and outcrops contain "balds" and meadow "rock gardens" which are a botanical highlight of this Property (see Unique Habitats and Rare and Listed Plants below). Between the Pacific silver fir stands and open outcrop habitats is a zone of shrubland dominated by copper bush (a relatively rare species) and vine maple along with Sitka alder, fools huckleberry, and oval-leaf huckleberry.

Dead Wood

There currently is no inventory data to quantify dead wood on the Property. Large snags are observed to be very uncommon due to intensive timber harvesting. Another important habitat condition, decay in living trees is also lacking. Black bear have been creating snags in closed stands and many dead trees are noticeable along Dave's Spur and the upper part of the Onion Peak Road. These snags are providing some well needed dead wood recruitment and mortality is not considered excessive currently. In most areas, down wood is a more prevalent structure having carried over from the original forests. However, large cedar down logs and stumps have been salvaged over the past decades and are depleted from many areas.

Unique Habitats (Special Management Areas)

The Conservation Easement Area which includes upper-elevation ridgeline and slopes on Onion Peak is a Representative Sample Area (RSA) (see Map 7, Appendix F). The riparian zones on fish bearing creeks are classified as High Conservation Value Forests (HCVF).



Disturbance Regimes

Insects and Disease

No major insect issues were observed during Property site visits in spring 2017. 2015 aerial reconnaissance does not show Swiss Needle Cast impacting the area in the immediate vicinity of the property. Remnant naturally regenerated Douglas-fir from locally adapted stock on the Property could be used as source for potentially SNC resistant seedlings. Deformities on trees caused by the Spruce tip weevil were observed but damage is minor. Due to the prevalence of young vigorous forests and location, forest pathogens such as root and heart rots appear to be very limited.

Fire

Historic fire regimes on the Property are unknown, but were likely characterized by low frequency and moderate to high severity events. The prevalence of large old growth Western redcedar stumps suggests long fire free intervals.

In the industrial period up until the last 15 years, broadcast burns were common after logging and likely used on the Property as is evidenced by the relatively sparse stand understories. In November of 2014, a slash pile burn escaped and burned several hundred acres of recently planted and young forest. Since this incident, slash piles have been removed as biomass or retained on site.

Other Abiotic Agents: Windthrow and Unstable Slopes

Windthrow and slope failure are the main abiotic disturbance events causing tree mortality on the Property. The exposed profile of this property subjects it to frequent strong coastal winds year round, which are most extreme during winter months. Evidence of these winds is common across the property both with stunted heights and bent form on trees and windthrow along harvest edges. Riparian buffers have experienced major blowdown, particularly those oriented perpendicular to prevailing winter winds.

NRCS Soil Survey lists Skipanon Gravely Silt Loams on moderate to steep slopes as subject to sliding and slumping due to deep plastic soils and fractured bedrock. The slump on the HP 19 road occurs in this soil type. Another road failure on the upper Shingle Mill Road suggests unstable slopes in this area. Rock and debris fall is a persistent issue on steep rocky slopes particularly along Side 7, upper Hug Point, and Onion Peak roads. Other evidence of recent slides can be seen south of the Shingle Mill Road where a large near vertical expanse of bedrock as been exposed, and in the upper Arch Cape Creek drainage.

Rare and Listed Plants

There are eight identified plant species listed with some level of rarity classification (see Table 4). Three are federally listed species of concern and state candidate species for listing. The species in Table 4 are associated with rock gardens and balds on the Onion Peak ridgeline system. Queen-of-the-forest is also found is wet rocky seeps and along streams in other locations on the Property. An additional species, Frigid shootingstar (*Dodecatheon*

austrofrigidum), a federal Species of Concern and ORBIC List 1, has not been found but is assumed to be present.

Table 4. State/Federal/ORBIC Listed Plant Species

Species:	Scientific Name:	Federal	State	ORBIC	Location
Saddle Mt. bittercress	Cardamine pattersonii	SOC	С	1	Onion Peak
Queen-of-the-forest	Filipendula occidentalis	SOC	С	1	Onion Peak
Saddle Mt. saxifrage	Micranthes hitchcockiana	SOC	С	1	Onion Peak
Fringed kittentail	Synthyris schizantha	None	None	3	Onion Peak
Rosy lewisia	Lewisia columbiana var. rupicola	None	None	2	Onion Peak
Wandering daisy	Erigeron peregrinus var. peregrinus	None	None	2	Onion Peak
Pink fawn-lily	Erythronium revolutum	None	None	4	Onion Peak
Flett's groundsel	Packera flettii	None	None	2	Onion Peak

Soc= Species of concern, C=Candidate for listing as Threatened or Endangered, ORBIC= Oregon Biodiversity Information Center, 1= Threatened or Endangered throughout range, 2= Threatened, Endangered or extirpated from Oregon, but secure or abundant elsewhere, 3= Review, 4= Watch.

Noxious and Invasive Species

Scotch broom and Armenian blackberry are the most common and problematic noxious weeds on the Property (see Table 5). Both are spreading along roadsides and in some recently harvested units. Tansy ragwort has been found along roadsides and in clearcuts. The other weeds are on plant lists for the Property but extent and rate of spread are unknown. In addition to noxious weeds other non-native species are known to occur within "rock gardens" and "balds. Species such as annual velvetgrass, ox-eye daisy, hairy cat's ear, mullein, and foxglove are present and impacting the native plant community, though to what extent is not known.

Table 5. State-listed Noxious Weeds

Weed:	Incidence/Spread:
Bull thistle	Unknown
Canada thistle	Unknown
Common St. John's wort	Unknown
Tansy ragwort	Moderate incidence and spreading along roadsides and in some units.
Armenian blackberry	Moderate incidence and spreading along roadsides.
Scotch broom	Light incidence and spreading along roadsides and in some units.

All plants listed above are Class B on Oregon state noxious weed list. Weed incidence and spread are based on best guess. Inventory has not been completed.

Non-Timber Forest Products

No assessments have been made for non-timber forest products. To date EFM has not conducted any commercial non-timber harvest activities on the Property.

Reference Conditions and Consistency with DFC and Trajectory Conditions

Remnant stumps and aerial photos indicate much of the Property was late-successional conifer forest until initial harvests occurred in the 1960s. Cedar stumps, many massive in size, are abundant, or were before salvage, throughout the lower elevation areas both in draws and on slopes. The cedar shingle mill along Arch Cape Creek is further testimony to the cedar resource that preceded logging. This species likely co-mingled with other canopy dominants including Douglas-fir, Sitka Spruce, and Western hemlock in multiple canopy structure.

The forest landscape on the Property has been heavily altered with successive harvests. Along with changes in structure (loss of large trees, canopy complexity, dead wood) species such as Western redcedar have been depleted. DFC of mature forest conditions will occur over the decades/centuries by limiting logging, retaining trees during harvest and with passive management. However, silvicultural manipulations such as PCT, gap creation and underplanting will accelerate this progression. The rebuilding of the cedar resource can be assisted by interplanting newly regenerating stands.

Though we don't know what reference conditions looked like on the rocky outcrop habitats on the Onion Peak and Angora Peak ridgelines, they likely have been dominated by grass/forb and shrub communities soon after these features formed. The lack of soil and the harsh environment has provided a competitive advantage for these habitats over trees. Logging may have actually helped maintain these communities by removing adjacent shading forest cover, though these disturbances have also brought weeds to the sites. Invasive weeds are likely the largest threat along with conifer encroachment. Climate change my lead to species composition changes.

Fish and Wildlife

Overview

Wildlife use of the Property by species commonly associated with early seral to young closed conifer/hardwood coastal forests is likely. Many of these species have been observed by visitors. Roosevelt elk frequent the Property. Use by black bear, blacktail deer, coyote, bobcat, mountain lion and other mammals is known. The upland basalt outcrops and balds provide unique habitat niches on the Property. Common birds of prey such as red-tailed hawk and turkey vulture as well as more rare species such as Peregrine falcon and bats may be using the rocky cliffs. Western bluebird and other early-seral bird species may be occupying the grass/shrub and small tree environments at high elevations. Though snags and large decayed, deformed trees are rare and limit woodpecker and associated secondary cavity nesting species, observed abundance of down wood in some areas likely provides good habitat for a range of amphibians and small mammals (e.g. western red-backed vole). Limited use of herbicides by the past owner has created more high quality early-seral habitat.

Arch Cape Creek has documented use by Pacific coho, Steelhead and chum along about ¼ mile of creek on the property until a natural barrier (water fall) prevents passage. A historical run of

the same species used to occur on Asbury Creek but a culvert under Hwy 101 now prevents fish passage. Asbury and Shark Creeks are classified as fish bearing above this culvert and are likely used by resident cutthroat, and rainbow trout. Other fish bearing streams occur on the West Fork Ecola Creek and some of its tributaries, Coal Creek (a tributary to the Lower North Fork Nehalem River) and Dichter Creek (a tributary to Asbury Creek).

Limiting factors for wildlife include lack of forest structural complexity. The predominance of young stem-exclusion stage forests and lack of biological legacy structures (old trees and large snags) limit use by a greater number of wildlife species. Species associated with large cedar will benefit in the long term from reforestation of this species.

The most significant human limiting factor to anadromous fish use on the Property may be the fish passage barrier culvert on Hwy 101 under Asbury Creek. Stewart (2011) surveyed the lower parts of Asbury and Shark Creeks and identified potential natural barriers and likely limits of anadromous passage if ODOT barrier was removed. He notes some anadromous habitat up to the HP 19 crossing on the Property may exist. The culverts on the HP 19 road over Asbury and Shark Creeks are fish barriers. Additional assessment of quality of anadromous fish habitat including whether passage could occur up to and beyond these culverts is needed.

Classified and Priority Habitat Fish and Wildlife Species

Table 6 lists 35 focal management species that may be present currently or in the future with restoration of the Property and greater regional conservation efforts. This list includes 11 bird, 12 mammal, 6 amphibian, and 6 fish species. Actual use is confirmed for Peregrine falcon, Olive sided flycatcher, Band-tailed pigeon, Mountain quail, Pileated woodpecker, Coastal tailed frog, Northern red-legged frog, Steelhead, Coastal coho, Chum, and Cutthroat trout.

Limiting Factors for focal wildlife include lack of mature, structurally complex forest and biological legacies (all wildlife groups) including large and abundant snags, down wood, large trees, canopy layering, and spatial heterogeneity. Species closely tied with late-successional habitat (Marbled murrelet and Northern spotted owl) are unlikely to be using the property currently due to lack of mature forest. Lack of structural retention in clearcuts limits greater use by species such as Western bluebird and Olive-sided flycatcher and bats. Fish passage obstructions limits some use (Asbury/Shark Creek). Greater knowledge of stream habitat conditions would allow assessment of possible limiting factors for both fish and amphibians.

Table 6. State/Federal/Oregon Conservation Strategy Classified Fish & Wildlife Species

Species:	Scientific Name:	Federal	State	OCS Strategy	Current Use
Bald Eagle	Haliaeetus leucocephalus	None	Vuln.	Yes	Р
Peregrine Falcon	Falco peregrinus anatum	None	Vuln.	Yes	С
Northern Goshawk	Accipiter gentilis	Concern	Vuln.	No	Р
Northern Spotted Owl	Strix occidentalis caurina	Threat	Threat	Yes	U
Marbled Murrelet	Brachyramphus marmoratus	Threat	Threat	Yes	U
Mountain Quail	Oreortyx pictus	Concern	Vuln.	No	С

Species:	Scientific Name:	Federal	State	OCS Strategy	Current
Band-tailed Pigeon	Patagioenas fasciata	Concern	None	Yes	С
Olive-Sided Flycatcher	Contopus borealis	Concern	Vuln.	Yes	С
Pileated Woodpecker	Dryocopus pileatus	None	Vuln.	No	С
Willow Flycatcher	Empidonax traillii	None	Vuln.	No	Р
Western Bluebird	Sialia mexicana	None	Vuln.	No	Р
Red Tree Vole	Arborimus longicaudus	Cand.	Vuln.	Yes	Р
White-footed Vole	Arborimus albipes	Concern	None	No	Р
Pacific Fisher	Pekania pennanti	Cand.	Crit.	No	U
Pacific Marten	Martes caurina	None	Vuln.	Yes	Р
California Myotis	Myotis californicus	None	Vuln.	Yes	Р
Long-eared Myotis	Myotis evotis	Concern	None	No	Р
Fringed Myotis	Myotis thysanodes	Concern	Vuln.	No	Р
Long-legged Myotis	Myotis volans	Concern	Vuln.	Yes	Р
Yuma Myotis	Myotis yumanensis	Concern	None	No	Р
Silver-haired Bat	Lasionycteris noctivagans	Concern	Vuln.	Yes	Р
Townsend's Big Eared Bat	Corynorhinus townsendii	Concern	Crit.	Yes	Р
Hoary Bat	Lasiurus cinereus	None	Vuln.	Yes	Р
Western Toad	Anaxyrus boreas	None	Vuln.	Yes	Р
Coastal Tailed Frog	Ascaphus truei	Concern	Vuln.	Yes	С
Northern Red-legged Frog	Rana aurora	Concern	Vuln.	No	С
Columbia Torrent Salamander	Rhyacotriton kezeri	None	Sens.	Yes	Р
Clouded Salamander	Aneide ferreus	None	Vuln.	Yes	Р
Cope's Giant Salamander	Plethodon elongatus	None	Vuln.	Yes	Р
Pacific Lamprey	Entosphenus tridentatus	Concern	Vuln.	Yes	Р
Western Brook Lamprey	Lampetra richardsoni	None	Vuln.	Yes	Р
Coastal Coho Salmon	Oncorhynchus kisutch	Threat	Vuln.	Yes	С
Chum Salmon	Oncorhynchus keta	Threat	Crit.	Yes	С
Steelhead (summer/winter)	Oncorhynchus mykiss	Concern	Vuln.	Yes	С
Coastal Cutthroat Trout	Oncorhynchus clarkii	Concern	Vuln.	Yes	С

OCS Strategy= Oregon Conservation Strategy species for Coast Range Region, Cand.= Candidate, Crit.= Critical, Sens.= Sensitive, Threat.= Threatened, Vuln.= Vulnerable, Current Use= Current known use of the Property (C=Confirmed, P=Possible, U= Unlikely).

Other Special Management Species

A population of black petal tail dragonfly (*Tanypteryx hageni*) on Onion Peak is one of only a few sites where this species has been found on the Oregon Coast. Though not a listed species, it is somewhat uncommon and has a highly specialized habitat consisting of mud (nymphs burrow into this substrate), mostly in bogs and other spring fed areas. Petal tails have been found on the Property in wet areas where springs and streams intersect roads. Mapping of these

populations and potential habitats will help to avoid adverse impacts during management activities, particularly road maintenance such as culvert replacement and ditching.

Infrastructure

Road System

The Property has a well-developed road system of nearly 43 miles (see Map 8). The main network consists of Hug Point, HP 19, HP 19G, Arch Cape Mill, Shingle Mill, Onion Peak, and Falcon Cove Roads. The Side Seven Road and Dave's Spur are important secondary roads. Numerous spur roads exist some passible and others have revegetated. While a formal inventory has not been completed by EFM, Stimson provided a roads and culverts layer and the road network has generally been well-maintained by the previous owner. With the exception of the Shingle Mill Road, which is non-passable in Section 28 due to a slump, and the upper part of the Arch Cape Mill Road, the above roads are rocked and passable. There are several other significant road issues identified during October 2016 road inspections. These include a reoccurring slump on the HP 19 road, at least two stream crossing culverts that need replacement, and other repairs to culverts, ditches, and grades. Hydrology on the Property is very flashy due to heavy, often concentrated precipitation including rain on snow events, shallow soils, exposed bedrock and steep topography. In response, previous owners have installed many drainage structures to keep water off the roads. Even with these culverts, drainage issues often occur, typically in the higher elevation areas of the Property along Dave's Spur and Onion Peak Roads. Ditch filling from slough is frequent, particularly at the higher elevations and requires frequent inspections and clearing. Maintaining the shape of road grades will also be important to property drainage to prevent larger issues.

There are eight locked gates on the property and all passable roads have controlled access (see Map 8). The ungated High Side and upper Arch Cape Mill Roads are entry points but are not passable.

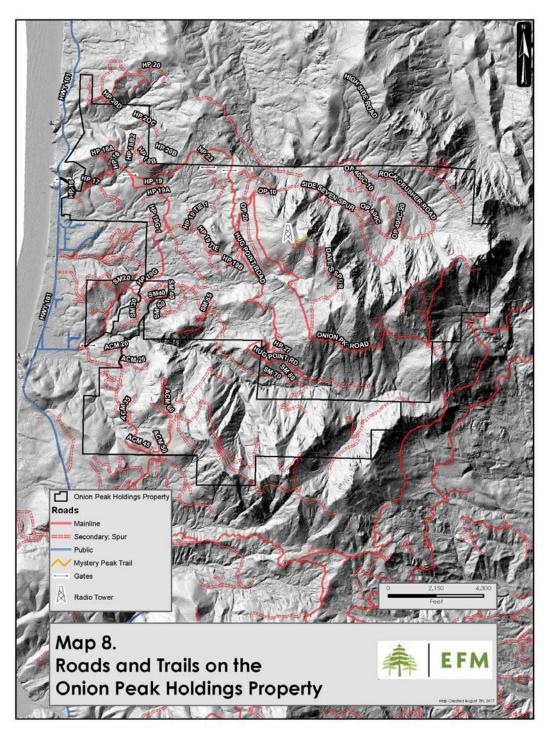
A road inventory is scheduled for completion in 2017 to update existing information and aid in prioritization of repairs and maintenance.

Structures and Utilities

An amateur radio repeater tower is located at the end of Dave's Spur (See Map 8). The Sunset Empire Radio Club maintains the site. No other structures are listed or shown in available documentation for the Property, were observed during management planning visits, or are visible in remote imagery. There are two power transformer boxes, buried power cable, a utility box, and wastewater pipe along the lower Shingle Mill Road just east of the gate at the wastewater treatment facility. This utility pumps wastewater up to a series of sprinklers for discharge on Arch Cape Sanitary District forestland bordering the Property. Cannon View Park Inc. maintains a spring box and outlet pipe surrounded by a cyclone fence on the Property about 600 east of the gated main entrance to Hug Point Road.

Water Sources for Fire Control

There are no established ponds on the property for helibucket refilling. A rock pit on the lower Hug Point Road holds water through the early part of the summer and may be suitable. Arc Cape Water and Sanitary District maintains a pond that can be used. Pump chances for ground crews



and other water sources will be identified and mapped in 2017 and included in the fire plan for this Property.

Rock Pits

Rock pits are located on the lower Hug Point Road, Side Seven and Onion Peak Roads. A gravel stockpile is located on the HP 19 just south of the borrow pit on the Hug Point Road. Pits will be mapped during 2017 road inventory.

Community

Socio-economic Conditions

The Property is situated in Clatsop County, which had a population of 37,474 in 2014. Pioneer industries were logging/sawmills and fish processing. Current principal industries include forest products, maritime industries (wood products, fishing), health care, and tourism. Tourism is the fastest growing segment of the economy with Seaside, Cannon Beach, and Astoria attracting large numbers of visitors. In 2015, the median household income for Clatsop County was \$46,408 (compare to state average of \$54,148). The unemployment rate for Clatsop County in 2016 was 5.4% (compare to state average of 4.6%). Nearly 16% of Clatsop County residents live in poverty. Clatsop County's largest city, Astoria, has a population of 9,477. The closest community to the Property is Arch Cape, a quiet beach enclave of vacation homes and permanent residents with a population 242.

Clatsop county is 98% forestland and mostly privately owned (70%), with remaining lands in state/federal ownership. Of these private lands, 78% is industrial forest and remaining is non-industrial forest. Remaining non-forested lands (2%) include urban and industrial areas, agriculture and pasture, and wildlife lands.

Adjacent Landowners

The Property is surround by a diverse mix of landowners. Land directly north borders Lewis & Clark Timberlands and the State Board of Forestry. The eastern boundary is shared with state lands and Weyerhaeuser. The southern edge of the Property borders mostly Weyerhaeuser and includes a small shared boundary with God's Valley Trust LLC., at the southwest corner of the ownership. The western boundary is joined by Oregon State Department of Transportation lands at the north end and properties owned by Cannon View Park Inc., Arch Cape Sanitary District, LynScot Ventures LLC., Congero Management Corporation, other small private lots and Oregon State Department of Parks and Recreation (Oswald West State Park).

Community Partners and Outreach

EFM and the North Coast Land Conservancy (NCLC), a local land trust promoting conservation of north coast lands in Oregon, are working collaboratively with stewardship of the Property. This partnership includes cooperative tours, ecological monitoring, and habitat restoration.

Management activities are coordinated with NCLC, particularly as they relate to the conservation easement area on Onion Peak. EFM will be working with other community partners including Arch Cape Water and Sanitary District, Cannon View Park, Cannon Beach Public Works to effectively manage water resources flowing off the property. North Coast Watershed Association is a possible project partner with stream habitat improvement projects. A stakeholder group including members from Arch Cape Water and Sanitary District, Oregon Department of Forestry, NCLC, and a local tribal member is being formed to review plans and provide annual feedback on Property management (see Appendix C).

Recreation

The Property is a popular destination for the public. Users hunt, mountain bike, hike, and run along the road network. The most popular entry points for recreation are at the Hug Point and Falcon Cove Road junctions near Hwy 101. Recent timber harvests have provided expansive views at many points on the Property and visitors can see the Columbia Bar, Saddle Mountain, Cascade high peaks, and area coastline during clear weather from various viewpoints. While most hunting has been walk-in, some vehicle and horse-based access by employees and invited parties has occurred over the years. The only known human use trails lead up to Onion Peak and Mystery Peak. The areas high points offer exceptional opportunities to observe rare plants along ridgetops and meadow habitats. The primary area of visitation is Onion Peak, though folks also hike to Mystery Peak. Hikers climbing Angora Peak (located on Weyerhaeuser land just south of the Property) walk in along the Arch Cape Mill Road via the Falcon Cove Road. This is currently probably the highest use area. Both Angora and Onion Peaks are featured on several internet sites as recreation destinations. Interestingly, the sites describing Onion Peak do not mention that the peak is closed to public use to protect sensitive plants. There are two spurs near the end of the Onion Peak Road that provide access to highpoints on the ridgeline, are outside the conservation area, and could be developed to provide alternative access for hikers. Some OHV use likely occurs but has not been identified as a management issue by the previous owner.

Aesthetic and Scenic Resources

Position, topography, and heavy timber obstructs the lower parts of the property. However, some areas including the high ground including Onion Peak can be seen from Seaside and Cannon Beach, while the slopes of Angora Peak are visible from Wheeler on clear days. Upper elevations of the Property are visible from area high points including Saddle and Neahkahnie Mountain.

Archeological/Cultural Resources

The Property and surrounding landscape were historically inhabited by tribes of the Chinook Nation. The Oregon Historic Sites Database lists no documented archeological sites and/or other cultural resources occurring on the property.

Summary of Limiting Factors, Opportunities, and Information Needs

Table 7. Limiting Factors, Opportunities, and Information Needs.

	Topography/Soils
Resource:	Limiting Factor/Issue & Opportunity:
Soils	Most areas susceptible to severe/very severe erosion with compacted, exposed soils. Potential instability on moderate/steep slopes, particularly Skipanon gravelly silt loams, which are found along western edge of the Property. Slumps along HG19 and upper Shingle Mill Roads indicate
Information Needs:	unstable slopes. Steep slopes should be evaluated prior to any timber harvest to evaluate slope stability.
	Water Resources
Resource:	Limiting Factor/Issue & Opportunity:
Creeks/Springs	See "Classified and Oregon Conservation Strategy Species" below. Need to ensure protection of water quality in domestic watersheds.
Wetlands	None noted.
Information Needs:	Road inventory to identify and prioritize work to minimize sediment delivery.
	Vegetation
Resource:	Limiting Factor/Issue & Opportunity:
General Forest	Young homogenous forest. Development of mature forest conditions could be accelerated with thinning. See "Noxious and Invasive Weeds" below. Western redcedar depleted and need to restock where opportunities arise (interplanting).
General Forest Riparian/Special Management Areas	conditions could be accelerated with thinning. See "Noxious
	conditions could be accelerated with thinning. See "Noxious and Invasive Weeds" below. Western redcedar depleted and need to restock where opportunities arise (interplanting). Unauthorized use by hikers in conservation easement area,
Riparian/Special Management Areas	conditions could be accelerated with thinning. See "Noxious and Invasive Weeds" below. Western redcedar depleted and need to restock where opportunities arise (interplanting). Unauthorized use by hikers in conservation easement area, with potential damage to sensitive plant communities. High winds limit thinning as silvicultural option. Outside of the conservation easement area, rare plant habitats are unprotected.
Riparian/Special Management Areas Disturbance Regimes	conditions could be accelerated with thinning. See "Noxious and Invasive Weeds" below. Western redcedar depleted and need to restock where opportunities arise (interplanting). Unauthorized use by hikers in conservation easement area, with potential damage to sensitive plant communities. High winds limit thinning as silvicultural option. Outside of the conservation easement area, rare plant
Riparian/Special Management Areas Disturbance Regimes Rare and Listed Plants	conditions could be accelerated with thinning. See "Noxious and Invasive Weeds" below. Western redcedar depleted and need to restock where opportunities arise (interplanting). Unauthorized use by hikers in conservation easement area, with potential damage to sensitive plant communities. High winds limit thinning as silvicultural option. Outside of the conservation easement area, rare plant habitats are unprotected. Scotch broom and Armenian blackberry mostly roadside are biggest weed challenges. Opportunity to control these

	Fish & Wildlife
Resource:	Limiting Factor/Issue & Opportunity:
Common Species	Lack of mature forest conditions or structural features is limiting for some species. Modified practices (retaining more dead wood, no future salvage of cedar stumps, retaining bear snags), treating noxious/invasive weeds, and road closures will benefit a range of wildlife species.
Classified and Oregon Conservation Strategy Species	Lack of mature forest conditions (lack of dead wood, large tree structure and canopy layering) are limiting factors. Existing culverts on the HP 19 road over Asbury Creek are fish barriers. Replacement may open some new anadromous habitat once fish barrier culvert on Hwy 101 is replaced with a bridge per ODOT plans. Other culvert updates could improve passage for resident fish and amphibians.
Other Special Management Species	Petal tail dragonfly populations are known to occur on the property. These sites and species are uncommon on the Oregon Coast. Protect known locations during road operations.
Information Needs:	Determine length of anadromous fish habitat potentially created with culvert updates on Asbury Creek. Map petal tail sites to protect during road maintenance activities.
	Infrastructure
Resource:	Limiting Factor/Issue & Opportunity:
Road System and Access	Slumps on HG19 and Shingle Mill Road, culvert and other drainage issues as identified in road inspections.
Structures and Utilities	None noted.
Water Sources for Fire Control	Lack of sources on property. Need to identify alternate sources.
Rock Pits	Need to map. Possible rock sales to city of Cannon Beach.
Information Needs:	Complete road inventory including mapping of rock pits, water sources, and utility boxes on the lower Shingle Mill Road. Map location of roadside petal tail and rare plants to avoid damage during road maintenance.
	Community
Resource:	Limiting Factor/Issue & Opportunity:
Adjacent Landowners	None noted.
Community Partners and Outreach	None noted.
Recreation	Web information on several sites is encouraging unauthorized use of the conservation easement area. Opportunity to develop alternative trails on old railroad grades to highpoints on the Onion Peak ridgeline to reduce use within the conservation easement area.
Aesthetic and Scenic Resources	None noted.
Archeological/Cultural Resources None noted.	
Information Needs:	Cultural survey before harvest.

Management Strategies and Implementation

Management strategies and actions for this five year planning window are provided in Table 8 and 9.

General Forest

Lands classified as general forest (all stands not reserved from harvest to protect riparian and other sensitive areas) will be stewarded for timber production, habitat maintenance and improvement.

Forest

Stands will be managed using an evenage with retention approach with rotations between 40-60 years depending on site class, slope, and location in relation to municipal watershed. Thinning is generally not appropriate as a silvicultural approach on most of the Property due to strong coastal winds, steep slopes, and windthrow risk. Areas where thinning will be considered include the gradually sloped stands within the upper Shark Creek drainage.

Early Seral Stands

Recently planted harvest units will be managed toward development of a mixed species forest with composition dominated by western hemlock, with Sitka spruce, Western redcedar, and red alder as minor associate species. Pacific silver fir will become more abundant at higher elevations on the Property. Douglas-fir, due to risk associated with Swiss Needle Cast is not a preferred species but will be allowed to persist as a minor component in stands. Herbicides and manual vegetation control within recent harvest areas will not be used unless reforestation failures occur. If vegetation control is deemed necessary, herbicides will be avoided unless critical for tree establishment.

Riparian and other Special Management Areas

No harvesting will occur with either RSA or HCVF areas on the Property. Other retention areas will include wetlands and non HCVF creeks which will be buffered to voluntary FSC standards, and the conservation easement area on Onion Peak (RSA). Steep and unstable slopes will be considered for exclusion from harvest.

Disturbance Regimes

Insects and Disease

Given increases of Swiss Needle Cast along the Oregon Coast and predictions for disease spread with climate change Douglas-fir will not be encouraged on the Property. Fortunately it has only been a minor component used in reforestation (15% of net volume). In more mature stands, the health of Douglas-fir will be evaluated when considering harvests and other species planted.

Managing for mixed species stands is also the best approach to limiting impacts from other pathogens and damaging insects.

Fire Prevention and Control

The risk of fire on the Property is relatively low due a maritime climate, limited plans for timber harvesting, and because public vehicle access and campfires are prohibited. The main strategy to reduce risk of fires on the Property is to continue to maintain locked gates on the main access roads, post allowed use signs, and to maintain roads to provide access for fire control. All contractors and staff will be directed to comply with state guidelines and policies regarding fire prevention and control. Oregon Department of Forestry has been provided a combination for the locked gates which provide access to the Property.

Other Abiotic Agents: Windthrow and Landslides

Windthrow risk will be reduced by avoiding large harvest openings with edges exposed to prevailing winds. Precommercial thinning should be a standard treatment soon after crown closure to improve long-term windfirmness.

To reduce the risk of slope failures, harvest areas will be evaluated for slope stability. Proper road maintenance with a focus on drainage will minimize such risk. A road inventory will be developed to identify issues for treatment prioritization. The two road slumps that have been identified on HP19 and Shingle Mill Road will be evaluated to develop corrective actions.

Noxious and Invasive Species

Scotch broom will be controlled manually along roadsides. Roadside Armenian blackberry may be controlled with herbicides outside of municipal watersheds and manually in sensitive areas. Surveys for rare plants and petal tail sites will be conducted prior to roadside weed work to minimize impacts. Invasive species control plans may be developed/implemented for sensitive plant areas including the conservation easement area and other ridgetop habitats and roadside seeps/springs with partner funding and collaboration.

Fish and Wildlife

The silvicultural strategy described above (see General Forest) will advance wildlife goals on the Property. Most of the focal management species (see Table 6) require mature forest or structural components such as down wood and snags. Bats in particular (7 of the 12 focal mammal species on the Property) will benefit from retention of snags and defective mature trees. The moratorium of salvage of cedar stumps and down logs will maintain such structure. EFM will work with Oregon State Parks to minimize impacts from forest management activities on Marbled murrelets on Oswald West State Park. Early seral species (Western bluebird) and those requiring shrubs and edge habitats (quail), will benefit from no herbicide strategy and retention of all snags (except those removed for safety). Non focal species including deer and elk will benefit from the strategy that promotes high quality early seral habitats and weed control along roadsides.

The best opportunity to improve fish habitat is likely to replace culvert(s) on Asbury Creek. A road management strategy to minimize chronic sediment delivery to streams and from road failures will be implemented. Any future harvesting will adhere to FSC buffers to provide added protection to fish and the six focal amphibian species that are aquatic.

Infrastructure

Road System

The main road network to provide access for silvicultural operations, fire control, and to facilitate tours and operations of our partners will be actively managed for vehicle passability. At a minimum this network includes Hug Point, HP 19, HG 19G, HP 19 Tie, Side 7, Onion, Dave's Peak, Arch Cape Mill, and part of the lower Shingle Mill Road. Other roads will be managed to minimize sediment production and delivery and hazard but may not remain open to vehicle traffic. A road inventory will be completed in fall 2017 to verify the current layer and to identify/prioritize road work. Completed inspections have identified road work to be completed in 2017. No new roads are scheduled for construction during the planning period, except as needed to fix road slumping issues on HP19 and Shingle Mill Roads. Efforts will be made to protect sensitive sites during road work such as a rare plants and petal tail habitats. Road management within municipal watershed areas will be conducted with the objective of minimizing sediment production and delivery.

Structures and Utilities

Minimal management of structures is needed on the Property. Dave's spur will be maintained to provide access to the tower. Care will be taken when conducting road maintenance on the lower Shingle Mill Road to avoid damaging to avoid damaging the two power transformer boxes, buried power cable, utility box, and wastewater pipe and the spring box, outlet pipe and cyclone fence on the lower Hug Point Road.

Community

Outreach

EFM will continue to explore opportunities to collaborate with community organizations, schools, business and individuals interested contributing to long-term stewardship of the Property. We will work with our partner, North Coast Land Conservancy to develop volunteer work party activities, tours, habitat restoration projects, monitoring, and consultations on recreation uses, and protection of the conservation easement. We will also maintain close coordination with the Arch Cape Water and Sanitary District, Cannon View Park, and Cannon Beach Public Works to keep them abreast of Property management activities that relate to their water use on the Property. Other relationships will be explored, time permitting, with other community organizations (e.g. North Coast Watershed Association) to pursue stewardship projects.

Recreation

The Property will remain open to walk-in recreation including non-predator hunting and hiking. Access may be further restricted during periods of high fire danger. Signs will be posted at major access points describing allowed uses. The conservation easement area will remain closed to most use including public visitation and signs are posted at the entrance to this zone. Use of the Mystery Peak trail will be allowed but not widely promoted in order to protect the rock garden plant communities. To improve safety, users will be re-directed to the HP 19 Tie road to access the high ground of the property on Onion Peak. Additional guidance on recreation use is provided in the EFM Forest Management Plan.

Aesthetic and Scenic Resources

Harvesting is not currently being considered in areas on the Property that are highpoints and visible from popular public use areas off the ownership. Views from within the Property will become more limited in many areas with growth of roadside trees in recent clearcuts.

Archeological/Cultural Resources

Prior to any harvest identification and protection measures for archeological/cultural resources will be completed as described in the EFM Forest Management Plan.

Economic Opportunities

EFM will hire local contractors whenever feasible to perform routine monitoring and maintenance. Such activities may include road inspections, maintenance and reconstruction, noxious and invasive weed control, tree and non-timber forest products harvesting, and tree planting.

Log Markets and Non-Timber Forest Products

Wood products from the Property will be marketed to area mills and export facilities to achieve maximum return. There are no currently planned sales of non-timber forest products.

Monitoring

Planned monitoring currently includes road and culvert inventory and inspections, periodic property inspections, stand inventory, and noxious weed surveys. Wildlife and rare plant/habitat monitoring may be initiated after establishing partnerships and securing funding.

Please refer to the EFM Forest Management Plan for the overarching monitoring and adaptive management strategy.

Table 8. Management Strategies

			Management Strategy	
Resource	G/0	1	2	3
General forest	General certified lands.		Manage property consistent with current FSC standards.	
	1.4	Manage ownership consistent with EFM master and property fire plan.	Pursue recreation policy described below.	
	2.1	Use variable density commercial thinning and variable retention harvests.	Apply FSC riparian buffers.	Areas administratively withdrawn from harvest due to steep slopes and inaccessibility.
Fish & wildlife	2.2	Retain minor species during thinning and regeneration harvests.	Plant Western redcedar in low stocking areas of recent harvest units. Include cedar as dominant species in reforestation projects after harvests.	
	Avoid herbicide use, except where necessary to control invasive species, critical for tree establishment, and where not in domestic water supply areas.			
-	2.4	Apply FSC riparian buffers.		
•	2.5	Apply FSC riparian buffers	Forest associated with steep, inaccessible slopes are not scheduled for harvest	Protect Onion Peak Conservation Easement area. Identify additional rare plant habitats for protection.
	2.6	Treat roadside noxious weeds and Scotch broom in units.		
Roads	3.1-2	Maintain main roads in open and fully functioning condition. Ensure other roads drain properly.	Conduct annual and post-storm monitoring to identify road issues.	
	3.3	Maintain locked gates at entrances.	No motorized vehicles, no bikes, no horses, no predator hunting.	
Domestic Water	4.1-2	See MS # 1 of Roads above. Consider other BMP measures (e.g. disconnect ditches from water courses) to reduce sediment within Shark/Asbury drainages.	Coordinate management activities with water users.	Seek alternatives to herbicide use in domestic water.

			Management Strategy	
Resource	G/O	1	2	3
Local Economy	5.1-2	TBD		
Collaborative Management	6.1-4	TBD		
Recreation	7.1-2	Maintain locked gate at Property entrances, and post signage.	Cooperate with NCLC on development of a recreation plan for the Property (NCLC to take lead on this project)	Install Kiosks

G/O = Goal/Objective

Table 9. Management Actions Schedule

					20	17			20	18			20	19			20	20			20	21			20	22	
Action	Who	Туре	Goal	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Road Inventory	CON	Assess	1, 3																								
Rare Plant Surveys	PART	Assess	1, 2						Tol	oe de	etern	nine	d, cc	ntin	gent	on	fund	ling a	and	oartr	nersl	nips.					
Forest Inventory	EFM	Assess	1, 2																								
Outreach to Property Partners	EFM	Outreach	1, 4, 6					Γ																			
Install Information Kiosks	EFM	Outreach	1,4,6		Tria	ıl kio	sk to	be i	insta	lled	at H	ug P	oint	entr	ance	in f	all 2	017,	oth	ers to	o fol	low i	f de	eme	d us	eful.	
Annual Road Repairs/Maintenance	CON	Treat	1, 3, 4							То	be p	erfo	rme	d as	nee	ded	prio	r to \	wet	seas	on.						
Road Upgrades/Decommissioning/Fish Passage Projects	CON	Treat	1, 2, 3, 4						Tol	oe do	etern	nine	d, cc	ntin	gent	on '	fund	ling a	and	oartr	nersl	nips.					
Scotch Broom Control	CON	Treat	1, 2																								
Precommercial Thinning	CON	Treat	1,2											L													
Annual Property and Road Inspection	EFM	Monitor	1-4, 7																								
Post-storm Property Inspection	EFM	Monitor	1, 2, 3								Т	o be	per	form	ned a	ıfter	maj	or st	orm	S.							
Noxious Weed Surveys	EFM	Monitor	2																								
Archeological/Cultural Survey	TBD	Monitor	1								То	be p	erfo	rme	d in	adva	nce	of h	arve	sts.							

Green box indicates planned completion date, Goal = See Table 1, Who = Entity responsible for completing task (EFM = Ecotrust Forest Management and Consultant, CON = Contractor, PART = Partner, TBD = To be determined).

Appendices

A- References

Chick, P. 2015. Arch Cape Domestic Water Supply District Water Management and Conservation Plan December 2015.

Stewart, D. 2011. Asbury Creek Rapid Habitat Survey. Oregon Department of Fish and Wildlife.

B- Property Contacts

Table 2. Property Contacts

Name	Title	Organization	Location	Phone	Email
Phil Chick	District Manager	Arch Cap Water and Sanitary District	Arch Cape	(503) 436-2790	philchickacutil@gmail.com
Jon Wickersham	Associate Director	NCLC	Seaside	(503) 738-9126	jonw@NCLCtrust.org
Thomas Merrell	Manager	CannonView Water	Arch Cape	(503)739- 2383	thomasmerrell@gmail.com
Doug Ray	Consultant	Carex Consulting	Seaside	(503) 440-5482	kdray@pacifier.com
Matt Benedict	Fire Chief	Cannon Beach Rural Fire Protection District.	Cannon Beach	(503) 739-1234	mbenedict@cbfire.com
Dale Moseby	Manager	Sunset Empire Radio Club		(503) 332-5201 (c)/503- 436-2751 (h)	dale@archcape.com
Cruz Flores	Manager	Cannon Beach Public Works- Water	Cannon Beach	(503) 436-8068	flores@ci.cannon- beach.or.us
Larry Brown	Manager	Pacific Corp		(503) 262-2110	larry.brown@pacificorp.com
Mark Morgans	Forester	Greenwood Resources		(503) 738-2435	Mark.Morgans@gwrglobal.c om
Craig Sorter	Forester	Weyco		(503) 739-2367	craig.sorter@weyerhaeuser. com
Jasen McCoy	Stewardship Forester	ODF		(503) 325-5451	jasen.r.mccoy@oregon.gov.

C- Property Stakeholder Advisors

Phil Chick, Arch Cap Water and Sanitary District Jon Wickersham, North Coast Land Conservancy Mark Morgans, Greenwood Resources Tribal representative, TBD

D- Easements		



E- Soil Types

Table 3. Soil Types and Management Characteristics

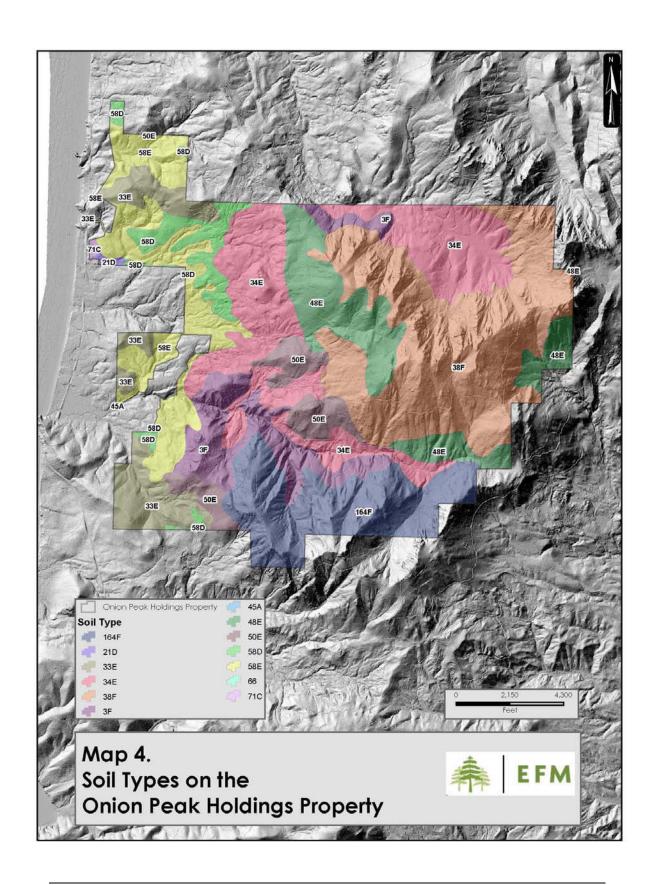
					Erosion	_		
MUS	Soil Type	Acres	% Total	On Road	Off Road	50-yr Site Index	Drainage	Seedling Mortality
3F	Ascar-Rock outcrop complex, 60 to 90 percent slopes	383.5	7.6	Severe	Very severe	111	Well drained	Low
21D	Grindbrook silt loam, bedrock substratum, 3 to 30 percent slopes	8.8	0.2	Severe	Moderate	136	Moderately well drained	Moderate
33E	Klootchie-Necanicum complex, 30 to 60 percent slopes	319	6.3	Severe	Severe	120	Well drained	Low
34E	Klootchie-Necanicum complex, 30 to 60 percent slopes, bouldery	962.4	19.0	Severe	Severe	116	Well drained	Moderate
38F	Laderly-Rock outcrop complex, 60 to 90 percent slopes	1,310.90	25.9	Severe	Very severe	113	Well drained	Moderate
45A	Mues silt loam, 0 to 3 percent slopes	0.3	0.0	Slight	Slight	NP	Moderately well drained	Low
48E	Murtip-Caterl complex, 30 to 60 percent slopes, bouldery	514.9	10.2	Severe	Severe	115	Well drained	Low

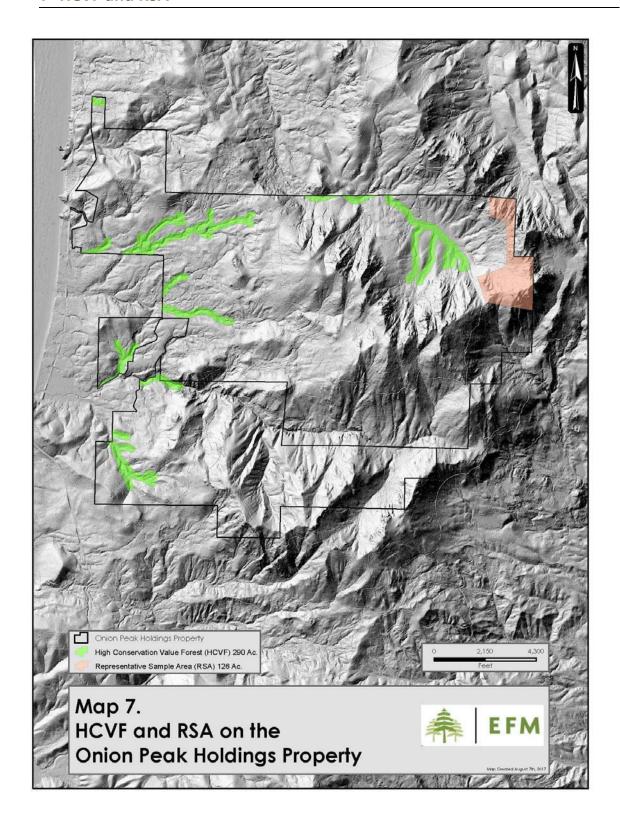
Erosion

MUS	Soil Type	Acres	% Total	On Road	Off Road	50-yr Site Index	Drainage	Seedling Mortality
50E	Necanicum-Ascar complex, 30 to 60 percent slopes	220.9	4.4	Severe	Severe	111	Well drained	Low
58D	Skipanon gravelly silt loam, 3 to 30 percent slopes	188.7	3.7	Severe	Moderate	127	Well drained	Low
58E	Skipanon gravelly silt loam, 30 to 60 percent slopes	532.1	10.5	Severe	Severe	127	Well drained	Low
66	Tropofluvents, 0 to 3 percent slopes	0	0.0	Slight	Slight	NP	Well drained	Low
71C	Walluski silt loam, 7 to 15 percent slopes	5.5	0.1	Severe	Moderate	NP	Moderately well drained	Low
164F	Killam-Fawceter-Rock outcrop complex, 60 to 90 percent slopes	611.5	12.1	Severe	Very severe	NP	Well drained	Moderate
	Total	5058.5	100					

Data from NRCS Soil Web Survey







Arch Cape Domestic Water Supply District Board Watershed Restoration and Community Forest Creation Public Engagement Strategy

Updated November 8th, 2017

Formatted: Superscript

The purpose of the Arch Cape Domestic Water Supply District Board's Watershed Restoration and Community Forest Public Engagement Strategy is to identify and describe the pathways to community participation in the acquisition and management of the Arch Cape drinking water source area.

Core Partners and Roles

This strategy was developed in partnership with North Coast Land Conservancy and Sustainable Northwest. The activities described herein are intended to complement existing communications, public engagement, and campaigns led by these partner organizations. Each of the partners plays a critical role in the success of this project.

Arch Cape Domestic Water Supply District:

Identity and Role: The District supplies clean, safe, and affordable water to the residents and visitors of Arch Cape. The District is the future owner of the community forest, which will be managed with community input on the management plan and through elected representation on the District Board.

Focus on public and government funding

Formatted: Indent: Left: 0.25",

ScalaSansOT-Regular, 12 pt, Font

Formatted: Indent: Left: 0.25"

Formatted: Indent: Left: 0.25"

Comment [BDR1]: Focus on

Deleted: indicate role here

Line spacing: single

Formatted: Font:

Activities:

- Hold title to land and/or easement;
- Have decision-making and budgetary authority;
- Ensure long-term protection of the conservation values of the forest;
- Manage the forest for high-quality, clean drinking water.

Communications strategy

- · Conversations with customers and residents in Arch Cape;
- Emails to customers and direct mail to residents;
- Lead designer for branding and consistent visual elements;
- Focus on messages relating to clean water and what community forestry can do for Arch Cape

Formatted: Font:

ScalaSansOT-Regular, 12 pt, Font color: Auto

Comment [BDR2]: Focus on flora and fauna

Deleted: indicate role here

North Coast Land Conservancy:

Identity and Role: The Conservancy is the region's land trust dedicated to preserving habitat, conserving land, and engaging people with nature. The Conservancy is the District's conservation partner and future neighbor within the Rainforest Reserve.

Strategies and Core Strengths

- Buying land including forests and wetland;
- Conservation easement acquisition, monitoring, and enforcement;
- Education, outreach, and meeting facilitation.

Formatted: Indent: Left: 0.25"

For example, NCLC's role for the City of Cannon Beach was to lead fundraising and transaction activities for the Ecola Creek Watershed Reserve.

Formatted: Font:

ScalaSansOT-Regular, 12 pt, Font

color: Auto

Sustainable Northwest:

Sustainable Northwest: a non-profit committed to increasing the extent and scale of community forests in the Pacific Northwest. The organization is providing technical assistance in support of the District's interest in protecting the drinking water source area and creating a community forest.

Deleted: acquiring

Comment [BDR3]: Caution against "acquiring"

Formatted: Indent: Left: 0.25"

Strategies and Core Strengths

Facilitating public meetings:

Grantwriting and grant administration;

Funding, financing, and economic incentives;

Sustainability certification and wood supply chain.

Formatted: Font:

ScalaSansOT-Regular, 12 pt, Font color: Auto

Staffing

The public engagement strategy has the greatest chance of success if a single point of contact, the *outreach coordinator*, takes responsibility for implementation of the strategy and timely response to stakeholder feedback. This coordinator can be a new volunteer, staff member, or existing partner.

Action item: The District will first outline a framework for public engagement and then evaluate the time commitment required to carry out the strategy. The Board should then determine the available budget and hiring/selection process to staff the public engagement strategy. In the interim, the responsibility will be shared on a volunteer basis by the three parties and coordinated through monthly conference calls or inperson meetings.

Comment [BDR4]: Small amount set aside for something this year

Communications and Messaging

The goal of the Arch Cape Community Forest will be the creation of a working, community owned forest that ensures that clean, safe, affordable drinking water will be available to residents and visitors of Arch Cape for generations; while sustaining the rich character and beauty of Oregon's coastal rainforests.

Formatted: Font: Italic

Formatted: Font: Italic

The District and core partners commit to using clear, compelling language to describe the purpose and intent of the watershed acquisition and management-related work.

Through facilitated dialogue with the board, community partners, and members of the public the group has crafted the following key messages to share with members of the community and other stakeholders:

 The District is working in partnership with North Coast Land Conservancy and Sustainable Northwest to protect the Arch Cape Drinking Watershed.

Deleted: ¶

The watershed will be protected to ensure local citizens and visitors of Arch Capehave access to clean and safe drinking water.

Formatted: Line spacing: single

The Arch Cape Community Forest concept grew out of North Coast Land Conservancy's Rainforest Reserve proposal, which seeks to conserve 3,500 acres of timberland above Arch Cape and adjacent to Oswald West State Park. The 2,100-acre Arch Cape Community Forest would include land within those 3,500 acres as well as additional low-elevation forestland.

> Deleted: **INSERT** additional key messages here¶

Action item: The Board and core partners review and refine the core messages. Seek consensus among partners to approve the core messages.

Deleted: ¶

Monthly Board Meetings

The Water Supply District Board meets the third Friday of each month at 6 PM at the Fire Hall. The meetings are open to the public and everyone is encouraged to attend. Every month there will be a standing agenda item dedicated to discussing updates on the status of the watershed.

Quarterly Newsletter

Every guarter, the District will provide a written update to customers regarding the condition of the watershed and the status of acquisition and restoration work. The updates may also be shared in the Community Club newsletter and posted on Facebook.

Comment [BDR5]: SNW buy-in needed on this

As updates may be infrequent in the early days of the project, the District can begin by educating its customers and residents. This can take the form of a FAQ section that raises and answers one question each month to grow over time.

The outreach coordinator can track public engagement by tallying the number and frequency of email replies, Facebook likes and comments. Additional engagement

strategies will be developed to reach seasonal and non-bill-paying visitors.

Annual Field Trip

Every year the Arch Cape Water Supply District will host a field tour of Shark and Asbury Creeks. Landowner permission will be secured upon scheduling the tour. The tour will be open to the public and showcase opportunities to restore, improve, and protect the watershed through community ownership. The outreach coordinator will track attendance and interest in the event over time.

Target Audiences

Communications should start with the core, direct audience of residents and ratepayers and expand over time. Beyond its permanent residents, Arch Cape has a number of stakeholders invested in the future of the community and the watershed. The following tables highlight target audiences, including examples of each, and accompanying outreach strategies.

Comment [BDR6]: Some kind of website

Target Audience	Example(s)
Property Managers and Second	
Homeowners	Short Sands Properties
Community Groups	Arch Cape Community Club, Castle Rock Homeowners Association, Cape Falcon Marine Reserve
Churches	Catholic Church
Neighboring Communities	City of Cannon Beach, local newspapers, farmers markets
Fire District	Falcon Cove
Rate payers	Full-time residents
Recreation Groups	Northwest Trail Alliance
Local Schools	Fire Mountain School
Public Agencies	State Parks, DEQ, ODF, OHA, ODOT
Potential Funders	Oregon Community Foundation
Local Governments	Clatsop County
Businesses	Cleanline Surf Co., Pelican Brewery, Tillamook County Creamery Association

Action item: develop a contact list including name, phone, email of targeted audiences/individuals

Action item: identify outreach strategies that are likely to be most effective at reaching the target audiences

- 1. Direct mailing and inserts into water bills;
- 2. Emails to water customers;
- Social media (incl. promotions) to share media;

Formatted: Indent: Left: 0.25"

Formatted: Font: ScalaSansOT-Regular, 12 pt, Font color: Auto

Timeline

Date	Activities
Oct- Dec 2017	 Finalize mission and vision statement Draft announcement about community forest opportunity (see press release) Coordinate with NCLC and Sustainable Northwest to complete the Public Engagement and Outreach Strategy; Schedule work session for Q4 2017 with the purpose of drafting outreach materials Begin outreach to fill vacant Board seat Identify outreach coordinator Draft newsletter content for general education Begin drafting development and funding strategy for January 2018 RFPs,
January- March 2018	 Set date for 2018 Watershed Field Trip (early summer 2018) Social media engagement efforts launched (create page, begin outreach) Community Advisory Committee convened as a working group to include members of community and board Revisit development and funding strategy. Update on grant applications (FFLP): 2-page description of potential forest management strategies shared through the newsletter Submit letters of interest for January 2018 RFPs (OR DEQ, OHA)
April- June 2018	 Field trip publicized and coordinated Decision about whether to invite external fundraising and development expertise
July- Septemb er 2018	Forest management vision draft presented by Community Advisory Committee
October- Decembe r 2018	 Evaluate community engagement strategy and launch campaign to complement Federal and State grant funding award decision

The strategy was developed through public meetings with core partners. Public meetings occurred in Arch Cape on August 7, August 18, September 15, and October

Deleted: <#>Draft announcement about community forest opportunity ¶ <#>Social media engagement efforts launched (create page, begin outreach)¶

Deleted: ¶
Set date for 2018 Watershed
Field Trip (early summer 2018)



Attachments and references
October 2017. "M Cerelli Marketing ArchCapeWaterDistrict Proposal"
October 2017. "NCC press release One step closer to Arch Cape Community Forest"













Arch Cape Domestic Water Supply District

32065 East Shingle Mill Lane Arch Cape, OR 97102

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulpu-

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

Lorem ipsum dolor sit amet, cons ectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

o consequat.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

Lorem ipsum dolor sit amet, consec

INTERGOVERNMENTAL COOPERATIVE ASSISTANCE AGREEMENT

This Agreement is entered into, by and between Arch Cape Water District (ACWD), and the Cannon View Park (CVP), Inc.

WITNESSETH:

WHEREAS, parties to this agreement are responsible for the construction and maintenance of water related systems during routine and emergency conditions; and

WHEREAS, each of the parties owns and maintains equipment, and employs or contracts with personnel who are trained to provide service in the construction, maintenance of, and operation of water systems and other support;

WHEREAS, each entity may need assistance to provide supplemental personnel, equipment, or other support; and

WHEREAS, it is necessary and desirable that this Agreement be executed for the exchange of mutual assistance, with the intent to supplement not supplant agency personnel;

WHEREAS, an Agreement would help provide documentation of the mutual assistance;

WHEREAS, ORS Chapter 190 provides for intergovernmental agreements and the appointment among the parties of the responsibility for providing funds to pay for expenses incurred in the performance of the agreed upon functions or activities;

WHEREAS, ACWD and CVP enter into this cooperative agreement, to carry out this joint effort and work,

NOW THEREFORE, the parties agree as follows;

- 1) The effective date is: 1 January 2018, or upon final signature, whichever is later. This agreement will continue until formally terminated.
- 2) Each party is an independent contractor with regard to the other party(s) and agrees that no party has control over the work and the manner in which it is performed by another party. No party is an agent or employee of any other. Accordingly, ACWD employees are covered under ACWD's workers' compensation coverage and CVP's contractor(s) is(are) covered under their own policy(ies).
- 3) No party or its employees is entitled to participate in a pension plan, insurance, bonus, or similar benefits provided by any other party.
- 4) This Agreement may be terminated, with or without cause and at any time, by a party by providing 30 days written notice of intent to the other party(s).
- 5) Modifications to this Agreement are valid only if made in writing and signed by all parties.
- Subject to the limitations of liability for public bodies set forth in the Oregon Tort Claims Act, ORS 30.260 to 30.300, and the Oregon Constitution, each party agrees to hold

harmless, defend, and indemnify each other, including its officers, agents, employees, and contractors, against all claims, demands, actions and suits (including all attorney fees and costs) arising from the indemnitor's performance of this Agreement where the loss or claim is attributable to the negligent acts or omissions of that party.

- 7) Each party shall give the other immediate written notice of any action or suit filed or any claim made against that party that may result in litigation in any way related to this Agreement.
- 8) Each party agrees to maintain insurance levels or self-insurance in accordance with ORS 30.282, for the duration of this Agreement at levels necessary to protect against public body liability as specified in ORS 30.270.
- 9) Each party agrees to comply with all local, state, and federal ordinances, statutes, laws and regulations that are applicable to the services provided under this Agreement.
- 10) If confronted with a situation requiring personnel, equipment or material not available to it, the requesting party (Requestor) may request assistance from the party receiving the Request (Responder). Upon receipt of such request, the Responder shall take the following action:
 - a. Determine whether it has the personnel, equipment, or material available to respond to the request.
 - b. Determine what available personnel and equipment should be dispatched and/or what Material should be supplied.
 - c. Dispatch available and appropriate personnel and equipment to the location designated by the Requestor.
 - d. Provide appropriate access to the available material.
 - e. Advise the Requestor in the event all or some of the requested personnel, equipment, or material is not available.

11) Documentation

Documentation of hours worked, and equipment or materials used or provided will be maintained on a shift by shift basis by the Responder, and provided to the Requestor as needed.

12) Compensation

It is hereby understood that the Responder will be reimbursed (e.g. labor, equipment, materials and other related expenses as applicable, including loss or damage to equipment) at its adopted usual and customary rates. Compensation may include:

- a. Compensation for workers at the Responder's current pay structure, including call Back, overtime and benefits.
- b. Compensation for equipment at Responder's established rental rate.

- c. Compensation for materials, at Responder's cost. Materials may be replaced at Requestor's discretion in lieu of cash payment upon approval by the Responder for such replacement.
- d. Within 30 days after presentation of bills by Responder entitled to compensation under this section, Requestor will either pay or make mutually acceptable arrangements for payment.
- e. In situations when costs are shared for the execution of joint projects or work, each party will be responsible for the costs equitably distributed in proportion to the benefit.
- 13) Each party agrees to share utility information regarding capacities, regulatory limits, long-term planning, cost of operations and funding mechanisms. Confidential and sensitive information and vulnerability assessments are excluded from the agreement.
- 14) Each party may request the other to participate in the implementation of joint efforts of system maintenance when such joint efforts may result in reduced cost to both parties.

EMERGENCY WATER SUPPLY NEEDS

Both parties will supply each other with water in the event of a major, substantial disruption of water supply as a result of earthquake, flood, fire, or other catastrophic event to the respective water systems. Water will be provided only in the case that it does not interfere with the domestic and fire suppression requirements of the provider. In such an event that emergency water is supplied, the amount of water and cost would be determined at the current established rate of the providing party, and charged to the receiving party on a per customer basis. Individual residence water use would be determined by reading the meters at both the beginning of, and at the end of the water shortage event.

TERMS OF AGREEMENT. This writing is intended both as the final expression of the Agreement between the parties with respect to the included terms and as a complete and exclusive statement of the terms of the Agreement. This Agreement shall remain in effect and shall continue until formally terminated upon the request of either party. Any party may terminate its participation in this Agreement as follows: 1) Written notice of intent to terminate 30 days prior to either parties wish to rescind this agreement; and 2) Termination will not affect a party's obligation for payment arising prior to the termination of this Agreement. This Agreement is not intended to be exclusive among the parties. Any party may enter into separate cooperative assistance of mutual aid agreements with any other entity. No such separate Agreement shall terminate any responsibility under this Agreement.

Contact Information

The technical points of contact regarding this statement of work are as follows:

Phil Chick
District Manager
Arch Cape Water District

Richard Gibson President Cannon View Park, Inc. 32065 East Shingle Mill Lane
Arch Cape OR 97102
Phone: (503) 436-2790
Mobile: (503) 739-2383
Email: richard.gibson@comcast.net

Signature

Signature

Date

Date

Arch Cape Watershed - Website Design & Maintenance Proposal Contract: December 2017 - January 2019

Proposed by: Micah Cerelli Mastrandrea

Website Design and Maintenance:

Provide the Water Board with a basic website to spread awareness about the watershed project. This includes a board selected domain name, maps, photos, website links, and contact information, with an opportunity for the Watershed District Manager to learn editing tools - capable of completing basic edits within the finished website.

Initial Design:

- (1) The Board / Water District Manager will provide me with website content.

 A WIX web page template will be selected and basic website functions will be presented to the board.
 - The domain name will be selected and purchased through the WIX platform A \$20 / month fee to use the WIX platform includes purchase of the website domain An email address will be set up, or selected to be the "point of contact" for website functions
- (2) Home page design + three to four additional pages within the website Examples: Contact info page, Arch Cape watershed general info, how to get involved
- (3) Educate Arch Cape Water District Manager on basic editing tools within the WIX online platform.

Edits to Completion:

- (1) Website draft one will be completed and tested for function by board members Website draft one will be commented on by board / water district employees
- (2) Website draft two will be completed and tested for function by board members Website draft two will be commented on by board / water district employees
- (3) Website draft three will be published live and shared within an email marketing campaign
- (4) First one hour meeting between Micah and Water District Manager will be scheduled and conducted
- (5) Website will be published with full functionality and Water District Manager will have basic editing capabilities

Maintenance:

Quarterly maintenance - not to exceed 10 hours / quarter of editing which includes: photo updates, content development, functionality edits Second (and last) meeting between Micah and Water District Manager will be scheduled and conducted.

Quote:

Proposal for work stated above: \$4,200

WIX fee's for domain name and hosting: \$20/month (prices subject to change annually) The board will be responsible for WIX fee's

Clarifications:

This website design contract will begin on December 15th, 2017 and end on January 15th, 2019. Payment terms will be discussed after notice to proceed.

2018 Dodge Ram Truck Quotes Arch Cape Water District 2017-18 Budget Allocation: \$40,000

2018 Dodge Ram 1500 Tradesman Gasoline Engine

Heavy Duty Vinyl, U-connect 3.0 radio system, Daytime running headlamps low beam, remote keyless entry, Anti-spin Differential Rear Axle, Trailer Tow Mirrors and Trailer Brake Control group, Protection Group (skid plates). Tru-Blue exterior, black/ gray interior.

1500 Tradesman Quad Cab 4x4 w/ 6'4" bed: 5.7 L V8 Hemi Engine automatic

LUM'S AUTO CENTER:

Warrenton, OR MSRP: \$39,385

Fleet Price: \$27,006 through 11/31 (plus documentation fees \$423)

RON TONKIN AUTO:

Milwaukee, OR MSRP: \$34,495

Fleet Price: \$26,351 through 2018

Withnell Dodge Salem, OR MSRP: \$34,495 Fleet Price: \$26,451

1500 Tradesman Crew Cab 4x4 w/ 6'4" bed: 5.7 L V8 Hemi Engine automatic

LUM'S AUTO CENTER

Warrenton, OR MSRP: \$40,535

Fleet Price: \$28,187 (plus documentation fees \$423)

RON TONKIN AUTO:

Milwaukee, OR MSRP: \$37,595

Fleet Price: \$27,207 through 2018

Withnell Dodge Salem, OR MSRP: \$37,595 Fleet Price: \$27,132

Additional Items:

Canopy and Bed Slide: between \$4-5K

Manager Report November 17, 2017

WATER:

A recent power outage caused communications issues at the Water Treatment Plant. Computer Support and Services had to reconfigure router settings so that the SCADA systems of the water and wastewater treatment plants could be linked again. The two systems are linked to autonotification software which alerts staff during alarm situations at the plants.

2017 is coming to a close and annual reporting, water sampling, and other requirements are being attended to. The District's Medical Insurance policy has been renewed for 2018, and Special District's Insurance Services has received the District's Best Practice Checklist.

Staff has begun annual flushing of the distribution system.

The 1999 Dodge Ram went into Les Schwab for brake problems. A leak was found on the right front caliper, and has been repaired at no charge. A quote for new brakes, calipers, and rotors is \$617.00.

MONTHLY LOG: ARCH CAPE WATER & SANITARY DISTRICTS October 2017

Total Hours	352.00
Percentage Split	
Total Accounts	625
Percentage Split	

138.25	213.75
39%	61%
287	338
46%	54%