

2019 SWOCC ELLIOTT STATE FOREST DRAFT RECREATION PLAN WITH RECOMMENDATIONS



PREPARED FOR

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Spring Term 2019 F251 Forest Recreation Class
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Front Cover: “Jerry’s Point of View.” Photograph of Sebastian Bartlett during April 23, 2019, field trip at Jerry Phillips Reserve. Phillips has often claimed that this is his “favorite viewpoint” on the entire Elliott State Forest. Photo by Hunter Black-Priest.

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Introduction: "The Elliott"

By Koby Etwiler, Sebastian Bartlett, and Amelia Harvey

"I'd been vaguely aware of the Forest's existence since attending Oregon State College, where it was described in college literature as an undeveloped State-owned forest of young timber lying between Coos and Umpqua Rivers, dedicated to educational purposes."

-- Jerry Phillips 1998: iii



Map 1. Oregon's State Forests. Yellow is Common School Fund lands (Decker, et al. 2011: xvi)

The Elliott State Forest is located along the southern Oregon Coast between Coos Bay and Reedsport. It covers 93,000 acres of public land. The Elliott has a very historic background, being Oregon's first State Forest and named after Oregon's first State Forester, Francis Elliott. All profits from the forest benefit local and state schools through Oregon's Common School Trust Fund (Phillips 1998: 1-15). These lands are owned and set aside by the state and overseen by the State Land Board of the Governor, Secretary of State, and State Treasurer.

The class of 2018 began the process of writing a Recreation Management Plan due to the lack of revenue being generated by the forest, and this year we continued their work by looking more in-depth at ways to bring in money for the Elliott. To gather our information, we traveled to several destinations in and around the Elliott (see Appendix C) in addition to online research. We describe, in detail, the various aspects of recreational activities in and surrounding the forest as well as recommendations for possible opportunities for profit. In our class of 7 students, each took the responsibility of writing a different section, which was combined for the final product.



Fig. 1. Elliott History Field Trip Group Photo on the West Fork Millicoma River Campsite. Photo by Wade Gould, April 23, 2019. Left to Right: Jerry Phillips, Tasha Livingstone, Kelsey Morrison, Kainoa Altier, Gabriella Jones, Hunter Black-Priest, Amelia Harvey, Sebastian Bartlett, Koby Etwiler, Bob Zybach, David Gould.

Part 1: Roads, Trails, and Sightseeing
By Kainoa Altier and Hunter Black-Priest

This chapter is based on chapter 1, “Forest Roads and Trails,” by Tara Boyd, Matthew Smith, and Daniel Patton (Kronsberg, et al. 2018: 3-6), and Chapter 5, “Sightseeing and Aesthetics,” by Patton, Boyd, and Smith (ibid: 15-20) in the *2018 Draft Elliott State Forest Recreation Plan*.



Fig. 1.1. View of Silver Falls at Golden and Silver Falls State Park. Photo by Kainoa Altier, May 28, 2019.

PLEASE NOTE The current road conditions in the Elliott allows travel for only some vehicles: trucks and 4-wheel drive vehicles are recommended. Most of the roads in the Elliott are narrow gravel roads with many potholes and thick overgrown brush on the sides of the roads. To navigate the Elliott’s various roads, you would need a well detailed map due to the fact that there is no directional signage, making travel for the unseasoned visitor who is not familiar with the area very difficult. Awareness of these conditions and preparation for travel is essential for individuals looking to visit the Elliott.

The Elliott State Forest consist of over 93,000 acres of land (Andrus, et al. 2003: 1-1) and approximately 550 miles of roads. Many of the roads and trails that are currently in the Elliott today are the same roads and trails that were used during the late 1800’s to present day. Prior to the introduction of white settlers to this area, the ridgeline and riparian trails were used by local Indian families (Zybach and Ivy 2013). Once the white settlers discovered the area, they developed these trails into wagon roads for access to the area. The CCC better known as the Civilian Conservation Corps are responsible for the development of a majority of the roads and trails system used in the Elliott today during the 1930’s (Phillips 1998: 19-111). More recently, the maintenance of these roads is credited to David Gould. Gould has been voluntarily using his own machinery along with rock and gravel donations from a local company to make repairs to the roads and ensure that access to the Elliott is possible.



Map 1.1. Elliott Forest Regional Access Map (Oregon Department of Transportation 2017 base map), (Kronsberg, et al. 2018: 4).

Beginning Point	Scottsburg	Lakeside	Allegany
I-5 Exit 161 Anlauf	40 mi./45 min.	68 mi./75 min.	96 mi./2 hr.
I-5 Exit 119 Winston	64 mi./70 min.	93 mi./105 min.	88 mi./105 min.
Hwy 101 Coos Bay	44 mi./1 hr.	17 mi./25 min.	15 mi./25 min.
Hwy. 101 Reedsport	16 mi./20 min.	12 mi./20 min.	40 mi./1 hr.

Table 1.1. Local Time and Distances to Elliott Access Points (Source: Google Maps), (Kronsberg, et al. 2018: 4).



Fig. 1.2. (L) Road to Elkhorn Ranch, April 23, 2019.

Fig. 1.3. (R) Gravel road on Deans Mountain, April 29, 2019. Both photos by Kainoa Altier.

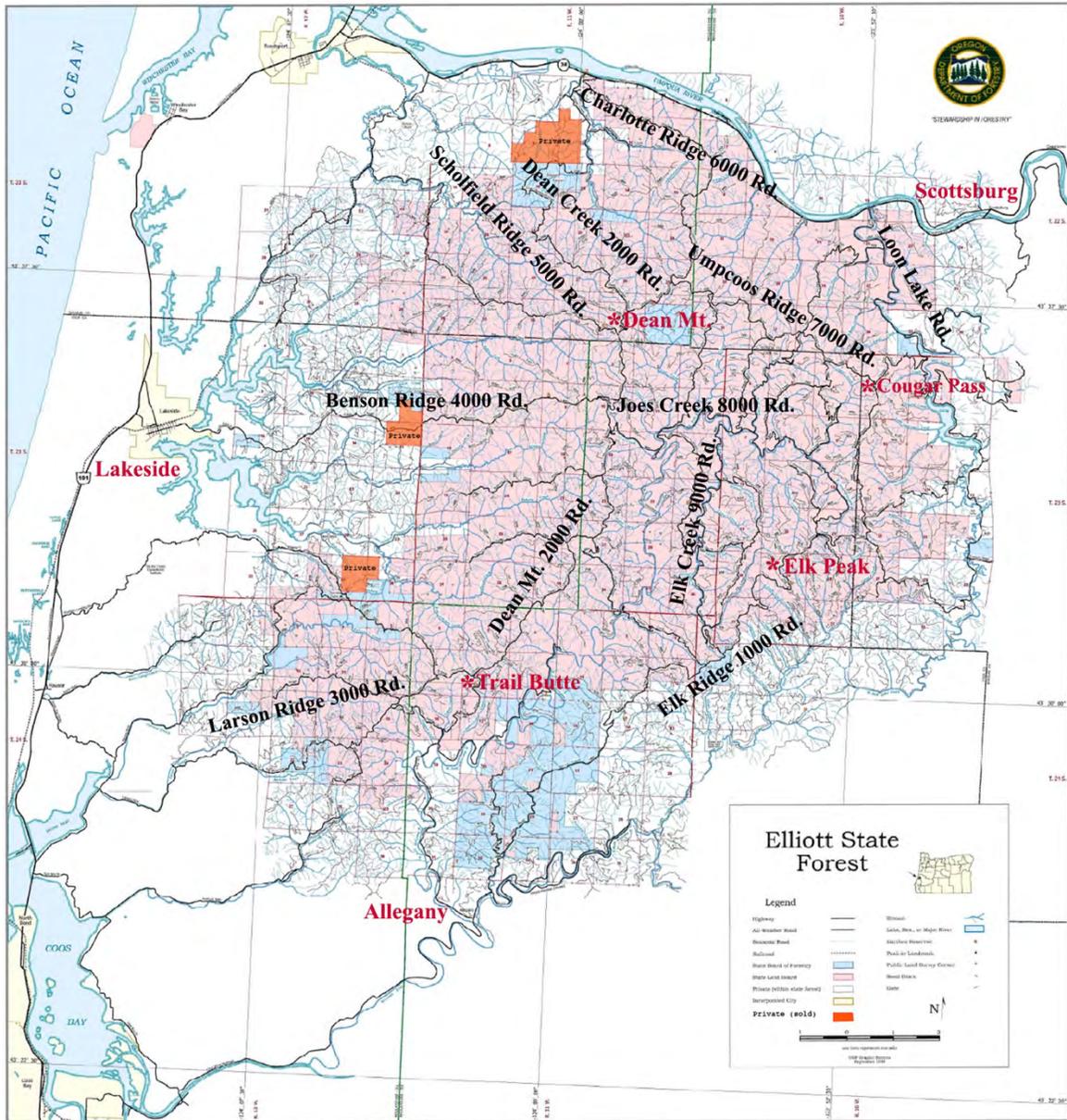
Recommendations

When considering the current condition of the roads in the Elliott, the biggest problem it poses to visitors is the lack of directional signage and narrow rough roads. As of now, navigating the Elliott for the first time without a map would be near impossible. Improved safety along roads and trails is ideal if we want to improve recreational experience of visitors. Directional signage for navigating roads in the Elliott, as well as some informational signs near historical areas to educate visitors on the many historical areas in the Elliott, would be a great start. Funding for installation of these signs would be relatively cheap and require minor maintenance.

Organizations such as Oregon Department of Transportation, Oregon Community Foundation Grants and Coos County Road Department could be potential funding sources for signage.

The Oregon DOT Weighted Average Item Prices for 2018 calendar year showed that the prices for signs, as well as standard sheeting, sheet aluminum, for the sign material, had an average price of \$16.61 per square foot. Another option could be standard sheeting with plywood, which has an average price of \$13.71 per square foot. These are basic material cost, therefore estimated price per sign could be said to be between \$50-300 due to installation and size. Being that as of right now there is no directional signage for navigating the main roads throughout the Elliott, a possible solution would be to place directional signs at the entrance point of each main road and at intersections in the forest. There are nine main entrances that provide road access to the Elliott: Elk Ridge 1000 Road (two entries), Dean Mountain 2000 Road (two entries), Larson Ridge 3000 Road, Benson Ridge 4000 Road, Scholfield Ridge 5000 Road, Charlotte Ridge 6000 Road, and Loon Lake County Road (Map 1.2). The estimated total cost for installing directional signage at each main road entrance and intersection would be between \$1,500-4,000.

As we have previously discussed, the need for directional signage is urgent. The lack of directional signage is a safety concern as people could get lost attempting to navigate the roads, or break down or have an accident. Therefore, I suggest that the installation of these directional signage is started as soon as possible to ensure safety of those traveling through the Elliott.



Map 1.2. Elliott Primary Road Network (Oregon Department of Forestry 1998 GIS base map).

We noted that of the 550 miles of roads in the Elliott, only approximately 150 miles of those roads are used for traveling to main destinations in the Elliott (Jerry Phillips, personal communication: June 3, 2019). An option for the maintenance of the roads in the Elliott would be to keep the main 150 miles of used road in good driving condition while using the remaining 400 miles of roads to be turned into trails for hiking, biking, or other recreational activities.

According to Kim McCarrel, Oregon Equestrian Trails (OET) Vice-President of Public Lands, and Valerie Lantz, a local Lakeside member of OET, there is support for the possibility of horse camps and trails that could be developed in the Elliott, providing full access to the forest (email correspondence, May 20-June 4, 2019). The remaining 400 miles of roads could be used, at least in part, for these proposed horse trails. David Gould suggests that Elkhorn Ranch would be an excellent staging area for a horse camp (personal communication: June 4, 2019).

We estimated that any logging that might take place in the forest will be able to fund road repairs for that 150 miles of main roads, and without logging the annual cost to maintain the 150 miles of road in good driving condition for public access would be approximately \$100,000 a year (Gould: personal communication, June 3, 2019).

Possible ideas for fixation of these roads has brought concerns to the public that could deter the development and improvement of the recreation access. Some concerns such as: who will be working on fixing these roads and continue to maintain them; who will fund the development of these roads; and will the maintenance of these roads cause too much traffic for local residents. With improved roads and directional signage, the Elliott could see an increase of recreational visitors which raises the concern to local residence of will this increase in visitors cause new daily traffic and overcrowding of a very secluded area.

Sightseeing and Aesthetics

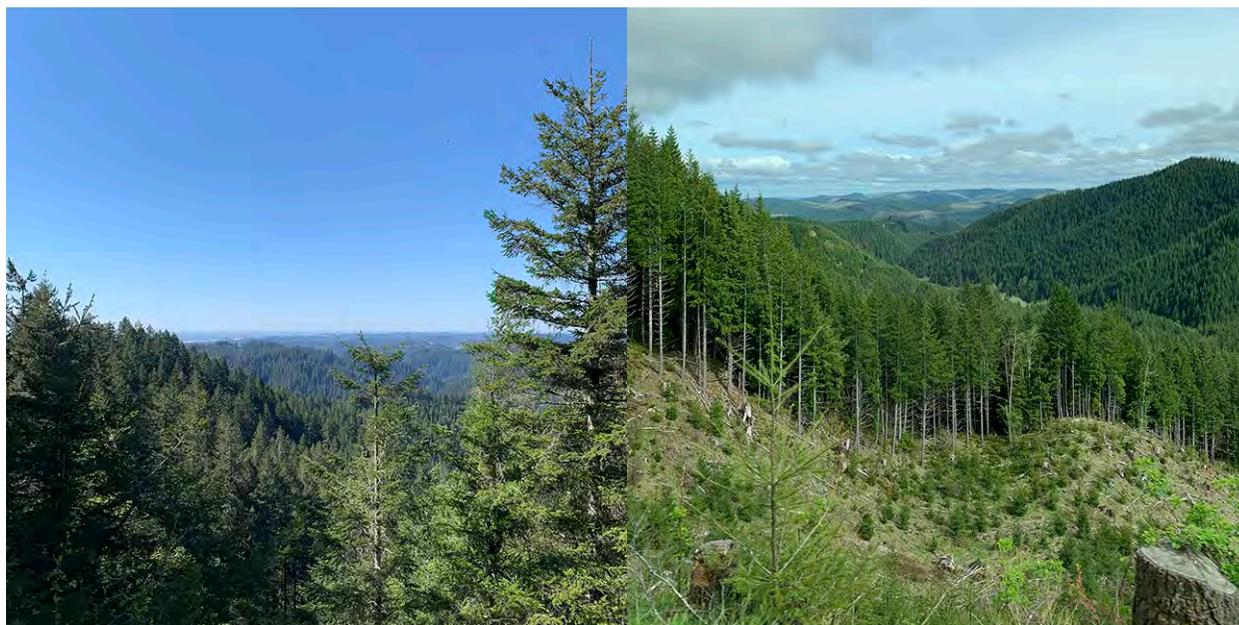


Fig. 1.4. (L) View West from Deans Mountain, April 29, 2019.

Fig. 1.5. (R) View from Benson Ridge Clearcut, April 23, 2019. Both photos by Kainoa Altier.

The Elliott State Forest has over 93,000 acres of beautiful scenery, abundant wildlife, and endless recreational activities such as hiking, fishing, off-roading, hunting, history education and more. Located northeast of Coos Bay, the Elliott is only about a 30-minute drive from downtown Coos Bay. There are various roads in the Elliott and many access points, but due to road

condition and lack of directional signage, caution is advised when navigating these roads. Reviewing the map and preparing your vehicle for travel is recommended.

Visitor attractions within the Elliott include the historic Elkhorn Ranch, Jerry Phillips Reserve, West Fork Millicoma River, Dean Mountain, and Cougar Pass Lookout; immediately adjacent to the Forest are the Umpqua River, Loon Lake, Oregon Dunes, Pacific Ocean, Golden and Silver Falls State Park, Tenmile Lakes, and Coos Bay. There is also an abundance of available campgrounds, motels, and RV parks in close proximity.



Fig. 1.6. Old-Growth Canopy at Jerry Philips Reserve. Photo by Kainoa Altier, April 23, 2019.

Scenic Viewpoints

There are many high ridgelines in the Elliott where great scenic vistas can be found by logging a clear-cut (Fig. 1.5). In some locations, such as Deans Mountain, the Oregon Dunes and beaches can be seen on a sunny day (Fig. 1.4). A list of places providing scenic vistas include: Indian trails, elk trails, early pack trails, Columbus Day Storm roads, and Deans Mountain.

In the Elliott you can find various creeks and rivers as well as a few waterfalls and lakes. Loon Lake is one of the popular lakes in the Elliott. It is located northeast of Coos Bay and provides visitors with recreation activities such as hiking, camping, boating, and sightseeing. Golden and

Silver Falls is a popular location for hiking and sightseeing in the Elliott, located East of Coos Bay. The state park is home to two large waterfalls which provide great photography opportunities for visitors (Fig. 1.1).

Wildlife Viewing

BLM Dean Creek Elk Viewing area, located off of Highway 38, is a great spot to see some of the wildlife present here in the Elliott. This location provides viewing platforms along with informational signs about the local wildlife and history of wildlife in that area.



Fig. 1.7. Sebastian at BLM Elk Viewing Area, May 21, 2019. Photo by Hunter Black-Priest.

Summary Recommendations

- 1) Directional signage is strongly needed throughout the Elliott as soon as possible to avoid putting visitors at risk of getting lost or stranded in the forest.
- 2) An inventory of current roads should be conducted to determine which roads need to be worked on or retired to a trail rather than a full vehicle access road.
- 3) Develop a plan for next year to design horse camps and several horseback trails in the Elliott as a way to bring money to the Elliott via recreation opportunities.
- 4) Consider installing gates and charging access fees as a method of regulating traffic and developing income to help maintain roads and trails.

Part 2: Local Forest Recreational Opportunities

By Hunter Black-Priest, Koby Etwiler, and Kainoa Altier

This chapter is based on Chapter 2, “Local Forest Recreation Opportunities,” by Amy Kronsberg, Scott Guthrie and Maggie Boone (Kronsberg, et al. 2018: 7-9) and Chapter 3, “Camping,” by Boone, Kronsberg, and Guthrie (ibid.: 10-11) in the *2018 Draft Elliott State Forest Recreation Plan*.

The Elliott State Forest must create more revenue for the School Trust Fund. One way to do this is increasing profitable recreation within the forest, by getting people involved and excited about the area. Getting people excited about the forest could start with the addition of new recreation activities and have them promoted with social media.



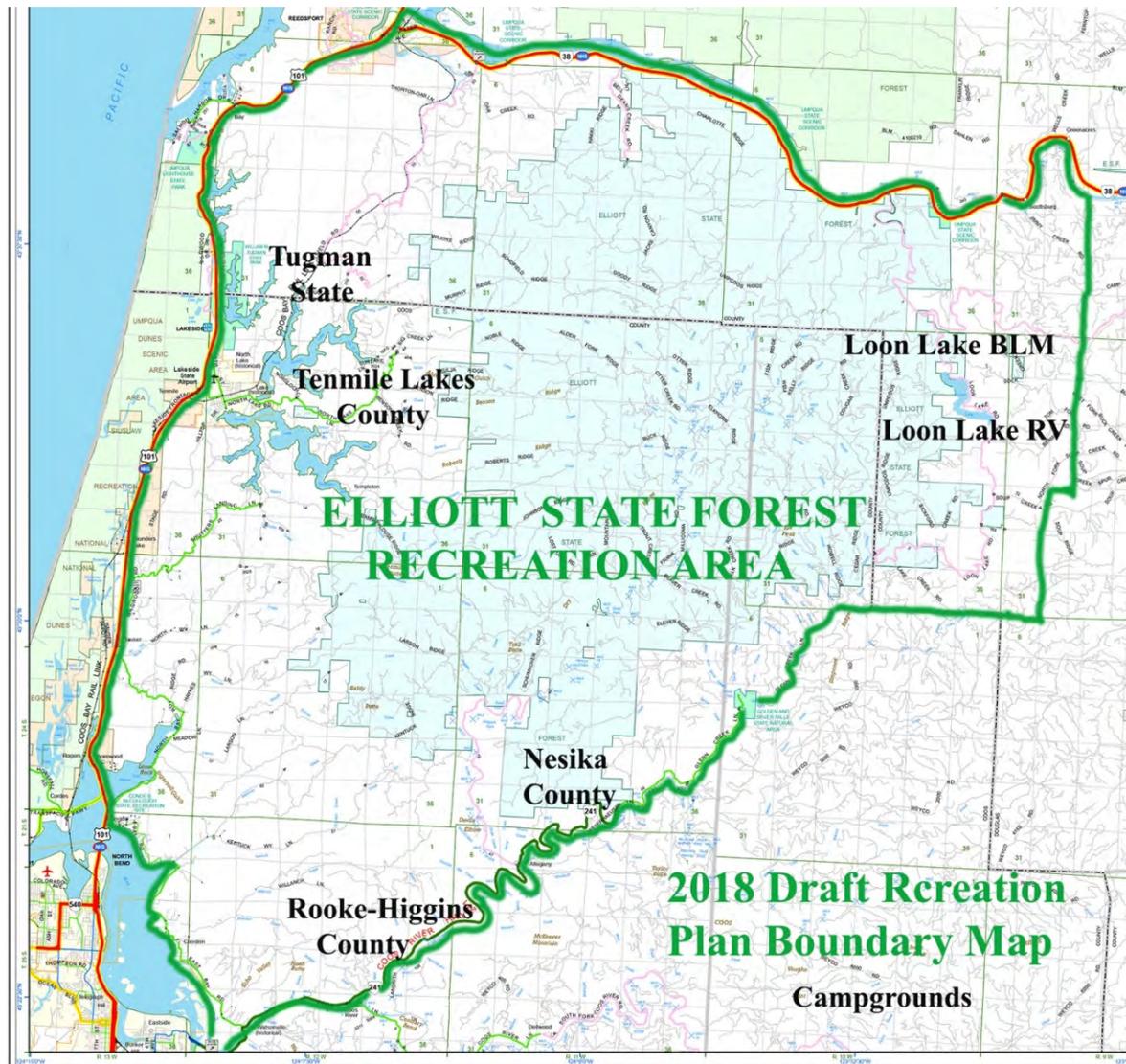
Fig. 2.1. Students standing in front of Silver Falls, May 28, 2019. Photo by Anne Farrell-Matthews.

Current Recreation Opportunities

The current recreation opportunities in this section are summarized from Kronsberg, et al. 2018. There are many recreation opportunities near and inside the Elliott State Forest. These include the Loon Lake Recreational Site on the eastern border, Golden and Silver Falls, and Mahaffy Ranch to the south. To the north is the Umpqua River and to the west there is the small town of Lakeside that is home to the Tenmile Lakes. More about the current recreation opportunities in and around the Elliott State Forest can be found in Kronsberg, et al. (Kronsberg, et al. 2018: 7-8).

Future Recreation Opportunities

There is plenty of potential for the Elliott State Forest to gain revenue for the School Trust Fund. To accomplish this, the amount of profitable features and activities in and around the Elliott would need to be increased. Some possibilities to increase revenue include maps, camping, and social events. Each of these three aspects of recreation can be enhanced in different ways to gain profit for the School Trust Fund.



Map 2.1 Elliott State Forest Recreation Area: Boundaries and Campgrounds (Kronsberg, et al. 2018: 9).

Maps have the capability to generate profit for a small cost. Creating a small detailed map, including historical points, campsites, and scenic areas can help people navigate in the Elliott and encourage more people to visit recreation areas in the Elliott. More information about how maps can gain profits can be viewed from Kronsberg, et al. (Kronsberg et al. 2018:7-8).

Camping

Having campsites throughout the Elliott and incorporating the forest into the campgrounds will create a family-friendly environment. Creating new campsites near scenic areas will increase the number of people visiting the area, and in turn it will create the opportunity to increase profits for the Elliott. Providing people with options for camping around or in the Elliott will make access to the forest easier.

The camp sites throughout the Elliott need a lot of updating for better camping experiences. One way to update camp sites would be to make fire pits out of cement. Making cement fire pits can keep the fires from getting too big and helps prevent wildfires. According to the Riley Ranch caretakers, cement fire pits also saves a bunch of money in the long run as opposed to using metal fire pits (Kronsberg et al. 2018: 10-11).

Campground	Owners	Facilities	Sites	Cost	Open
BLM Loon Lake Recreation Area	Federal	Flush toilets	61 Tents / 43 RVs	\$18-\$36 per night	Closed 2019
Loon Lake Lodge and RV Resort	Private	Full RV hookups	20 Tent/RV sites, Cabins	\$45-\$65 per night	April 15-October 31
William M. Tugman	State	Toilets, water, RV dump	93 Electrical/16 yurts		Year round
Tenmile Lake Campground	County	Electricity, RV dump, showers	45 RV sites	\$3/ day \$25/night	Year Round
Rooke-Higgins	County	Vault toilet	26 Tent Sites	No cost	Year Round
Nesika	County	Vault toilet	20 Tent Sites	No cost	Year Round

Table 2.1 Elliott Forest Recreation Area Campgrounds: Seasons and Facilities.
BLM: US Department of the Interior Bureau of Land Management

Events

Holding social events in certain areas of the Elliott is a great way to gain revenue. Different events and social gatherings could include children's camps, outdoor school, remote control cars (RC cars), dirt bike races, weddings and other social gatherings.

The scout camp could incorporate children's camps and outdoor school in the Elliott. Setting up a contract with an elementary school would be the first step. The students would participate in educational activities about our environment and would help engage their young minds. Monetary gains from this would come from the school district and/or the parents that pay for it themselves. If you have a class of 20 students and you provide them with lunches, \$40 a head would add up to \$800. If you spend \$10 a head on lunches the cost would be \$200, and you would still have \$500 to work with.



Fig. 2.2 Boy Scout Camp Chinook discussions, April 30, 2019. Photo by Hunter Black-Priest.

Creating new ways to gain profit in the Elliott will be the foundation for making the forest a sustainable source of revenue for the School Trust Fund. For example, designing a dirt bike track while incorporating the natural elements of the forest would be a great attraction for people around the area. The Elliott has a ton of potential to incorporate a track and campsites for people that are into racing. According to a personal communication by John Priest, an equipment operator for Foglio Trucking, hiring a crew of 2-3 laborers should complete the track within 1-3 days. The equipment needed would be a dump truck, bulldozer and excavator. The average cost for a dump truck per hour would be \$100, a bulldozer is \$150, and an excavator is \$200. Also, the cost of labor would be 50-75 dollars per hour.

Creating bike trails for mountain bikers and BMX riders throughout the Elliott is also a way to get more people excited about the area. Around here there is no such thing as a BMX track or mountain biking trails, if we incorporate these aspects to the Elliott it will help gain a wider variety of recreationalists. In addition, holding events such as a “5k walk/run”, “Color Me Fun Run” or events such as the “Dirty Dash” throughout the forest would attract many people. Advertising the events on social media and promoting the Elliott would help gain profits. Having events such as these will attract people due to the incorporation of the forest experience. On-site registration for a walk/run event could be \$30.00 or more depending on the event.

Recommendations

By creating new ways to gain profit in the Elliott, the forest could become a sustainable source of revenue for the School Trust Fund. Refurnishing current campsites by creating cement fire pits is a way to update the campsites and the safety of the area and people visiting the site. Creating new campsites throughout the Elliott would enhance the camping experience. Certain areas around recreation sites could be turned into a campground. Instead of having them very close together, such as Loon Lake, they could be more spread out for diverse camping experiences. There can also be the introduction to camp hosts in those areas to help keep track of how many people are camping in certain areas as well as making sure that the people using the site are comfortable and following the rules. There should also be rules posted in every site as well as pamphlets that contain information about the recreation activities and history of the Elliott, to hand out to guests.

Contacting the landowner to develop a plan for outdoor school and children's camps at the Chinook Camp should be prioritized because that area has high potential for revenue.

Also, designing and implementing a dirt bike track while incorporating the natural elements of the forest would be a great attraction for people around the area.

Contact landowner to create a plan and get permits for holding events such as the "5k walk/run."

Creating social media for the Elliott State Forest is a great way to promote activities within the Elliott at a low cost.

Organizing fundraisers to help support and generate money to put towards the creation of these events will help pay for the process. Also, instead of buying all materials, ask companies to donate the materials for certain projects. Most local companies will support and donate materials if the organization benefits from the project.

Creating a plan to incorporate internships for students to help maintain the recreation areas within the forest will provide low cost labor and interest in the forest for future generations.

Part 3: Elliott State Forest History, Cultural Resources, and Ethnobotany
By Kelsey Morrison, Kainoa Altier, and Sebastian Bartlett

This chapter is based on chapter 4, “Elliott Forest History,” by Cole Smith, Carter Carr, and Maxwell Richcreek (Kronsberg, et al. 2018: 12-14); chapter 6, “Cultural Resources,” by Carr, Richcreek, and Smith (ibid: 21-23); and chapter 11, “Ethnobotany,” by Cody Harkins, Matthew Hofenbredl, and Abigail Richards (ibid: 41-43) in the *2018 Draft Elliott State Forest Recreation Plan*.



Fig. 3.1. Gould family at Elkhorn Ranch, 1886. Photographer unknown.

Elliott State Forest History

In 1930 Oregon established the Elliott State Forest. It was named after Oregon’s first state forester Francis Elliott. There is a total of 93,000 acres, 90% of the Elliott belongs to the Oregon Common School Fund. It is managed by the Oregon Department of Forestry (J. Phillips 1996). The most comprehensive history of the Elliott is written by Jerry Phillips (Phillips 1996) This history was summarized by Cole Smith et al. (Kronsberg, et al. 2018: 12-14). The following timeline summarizes that history.

1850 Precontact- The forest was used by Native Americans before early settlers arrived. The land was used for the survival of several Pacific Northwest tribes such as the Coos, Lower

Umpqua, and Siuslaw. All of these groups utilized the Elliott's natural resources (P. Phillips 2016: 1-126).

1850-1930- The 1st settlement in 1850 was at Mill Creek. Nine years after becoming a state, Oregon experienced a severe fire that burned 300,000 acres in 1868. Most of the Elliott was burned. In 1914 a fire watch tower was built on Deans Mountain (J. Phillips 1998: 1-15).

1930-1940- CCC began to build a county road in 1933. A second fire lookout was established in 1935. The Bureau of Land Management deeded land, previously part of the Siuslaw forest, to the common school fund for the purpose of generating revenue (J. Phillips 1998: 16-36).

1940-1962- Old growth timber sold for the purpose of building roads throughout the Elliott. Timber was inventoried by Jerry Philips (J. Phillips 1998: 138-190).

1962-1992- The Columbus Day storm hit, leading to a need for more road construction in order to harvest windblown trees. The forest was heavily managed for timber harvest, and a period of high revenue (J. Phillips 1998: 138-190).

1992-2018- Legal issue regarding the listing of Spotted owl led to fiscal issues in the forest. Changes in logging operations and accessibility occurred in order to satisfy environmental standards (J. Phillips 1998: 145).

May 2019- A section of the Elliott, previously called the Silver Creek Heritage Grove, is renamed Jerry Phillips Reserve, after the man who set that grove aside and worked in the Elliott throughout his life.



3.2 Third Senate Reading, “Jerry Phillips Reserve,” Salem, May 27, 2019. Jerry Phillips and Bill’s sponsor Arnie Roblan. Photo by Stephen Fitzgerald, OSU Research Forests.

Cultural Resources

Cultural Resources are the locations and artifacts associated with the human activity of the past. Historical resources are typically those of fifty years or older and associated with an important person, event, or historic time period, so far as buildings, structures, cultural landscapes or other identifying characteristics that might exist.



Fig. 3.3. David Gould at Elkhorn Ranch orchard, November 8, 2017. Photo by Bob Zybach.

Within the Elliott State Forest there are such places as: Cougar Pass Lookout; springs where Native Americans camped; CCC roads and trails along with the Elk Horn Ranch; the apple patch planted by the Gould family; and Himalayan Blackberry patches planted by the Native Americans (J. Philips 1998: 372-395).

Current use on Elliott

The fish hatchery is currently being used for educational purposes and to aide in the S.T.E.P program. There is a hiking trail to the Cougar Pass lookout tower. Hiking and hunting do take place in the Elliott, and berry picking, and mushroom hunting are anticipated in use as well.

The first Cougar Pass lookout tower built was in 1935 and can be accessed by a hiking trail. Today the sixty-foot tower still stands. It is not clear how many users currently frequent the pass (Kronsberg, et al. 2018: 21-23).

Potential for School Trust advantage:

By charging for an Access Permit to enter the Elliott State Forest Recreation area we could generate revenue to support the forest. A part of Oregon's history could be visited in the Elliott State Forest and see the locations as stated above. A lot of people like to experience visiting an area where previous generations have lived. (Based on the chapters done by Carter Carr) (Kronsberg, et al. 2018:21-23).

Ethnobotany

Ethnobotany is the documentation of the use of plants by those closely related native tribes, whose culture are distinct from those of other areas with a focus on native plants and their traditional cultural uses (Summary from readings by P. Phillips 2016).



Fig. 3.4. Thimbleberry, Coos River, June 20, 2019. Photo by Jolene Bartlett.



Fig. 3.5. Salmonberry, Coos River, June 20, 2019. Photo by Jolene Bartlett.

The following list is generated from the book written by Patty Phillips 2016, “Ethnobotany of the Coos, Lower Umpqua and Siuslaw Indians.”

Fuel/Fiber

Myrtle Wood (*Umbellularia californica*): Nuts, teas, wood working (Phillips 2016: ibid:42)
 Redcedar (*Thuja Plicata*): Fuel, building, carving, basket weaving (ibid:31)
 Douglas-fir (*Pseudotsuga menziesii*): Fuel, building carving, tea (ibid:37)
 Hazel (*Corylus cornuta var. californica*): Basket weaving, nuts (ibid:55)
 Iris (*Iris douglasiana*): “Flag”/Oregon Iris (ibid:88)

Food/Medicine

Miners lettuce (*Claytonia perfoliate*): Food and medicine (ibid:90)
 Gooseberry (*Ribes divaricatum, R. menziesii*) (ibid:54)
 Salmonberry (*Rubus spectabilis*) (ibid:65)
 Blueberry (*Vaccinium uliginosum*) (ibid:51)
 Trailing Blackberry (*Rubus Ursinus*) (ibid:51)
 Mushrooms/Shelf Fungi (*Basidiomycota*) (ibid:113)
 Elderberry (*Sambucus racemose var. arborescens*) (ibid:52)
 Huckleberry (*Vaccinium ovatum*) (ibid:56)

The price for a pound of berries varies on the variety. The Gooseberry sells for an average of \$15 dollars a pound. Huckleberries can be sold of an average of \$12.50 per pound. Himalayan Blackberries can be sold for \$4 to \$8 a pound. Blueberries average \$2 a pound. Mushroom varieties can be sold for \$4 to \$15 dollars a pound. These prices are based on Northwest Wild Foods, WA and the USDA site of Economic Research. 2018.

Coast Range Forest Watch holds an annual Mushroom Hike during the month of November. Last year was their 6th year.

Potential for School Trust advantage

According to Harkins a substantial amount of profit could be generated by issuing permits, for commercial berry and mushroom harvesting. This could be feasible if the landowner of the Elliott contacted The Forest Watch, local tribes and the Department of State Lands to issue the permits and enforce harvesting practices. Currently the ownership of the land and funding to the common school fund is in influx (Kronsberg, et al. 2018: ibid 3-6).

Barriers to development

The main factors in considering development is that the roads are unmarked, and one can get lost very easily. There are areas where the roads are a bit dangerous due to being located on a steep hill with the drop off very unforgiving. Most roads are primitive and would not be easily navigated by car. To learn more about barriers, see chapter one by Tara Boyd from last year’s report (Kronsberg, et al. 2018: ibid 3-6).



Fig. 3.6. Elderberry, Elliott State Forest, ca. 2017. Photo by Sebastian Bartlett.



Fig. 3.7. Ripe Huckleberries, Huckleberry Point, October 10, 2017. Photo by Bob Zybach.

It is my recommendation that directional signs be placed within the forest for better navigation in the Elliott. I recommend having interpretive signs that state which berries are available for harvest. I also would create a brochure to be placed at nearby restaurants and hotels to encourage interest. I feel some brush clearing along some of the roads would be helpful as well due to the roads can be accessed by car, however people may not want brushes scratching their paint.

Part 4: Fish Habitats, Hatcheries, and Recreational Access

By Gabriella Jones, Amelia Harvey, and Kelsey Morrison

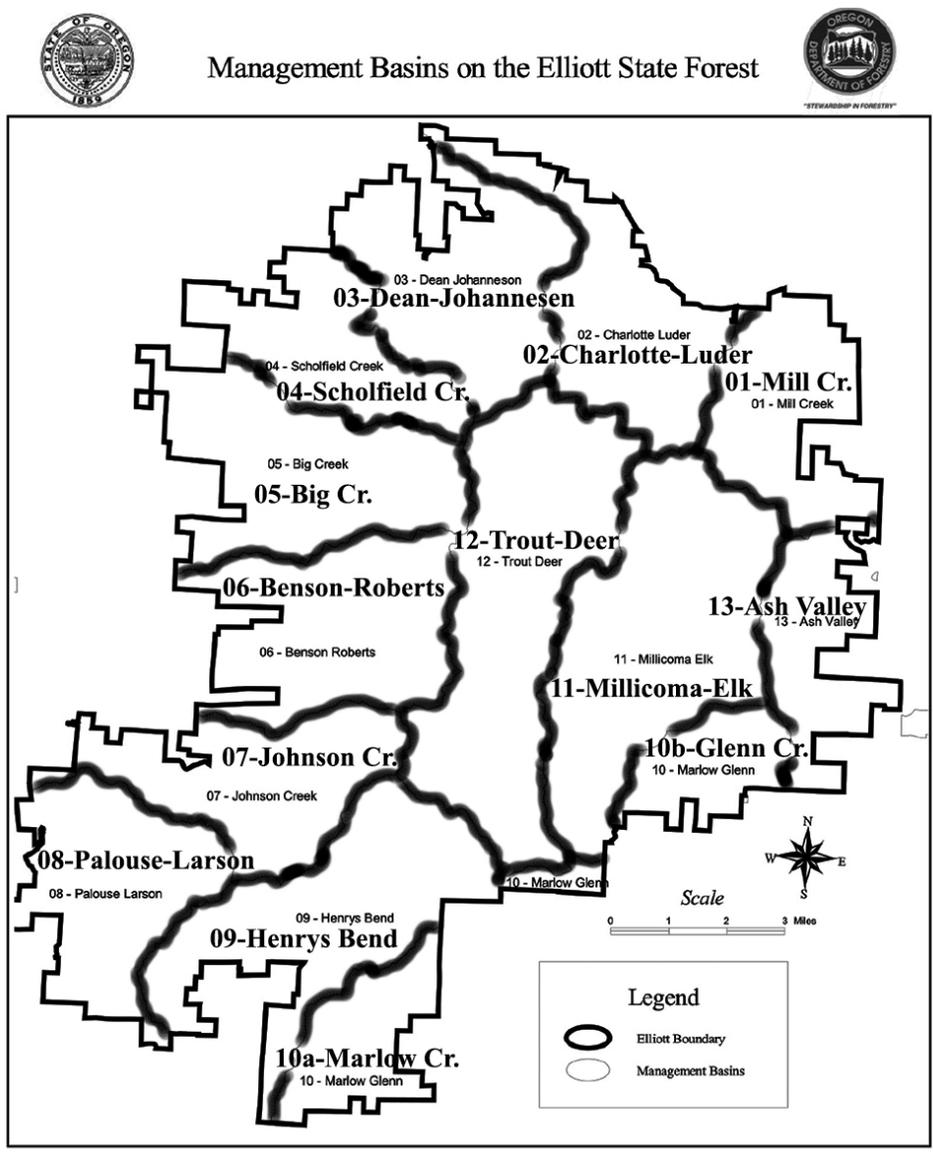
This chapter is based on chapter seven “Fish Hatcheries” by Matthew Hofenbredl, Abby Richards, and Cody Harkins (Kronsberg, et al. 2018: 24-27), and chapter eight “Fish Habitat and Recreational Fishing Access” by Max Richcreek, Cole Smith, and Carter Carr (ibid.: 28-30) in the *2018 Draft Elliott State Forest Recreation Plan*.

The Elliott State Forest contains the West Fork of the Millicoma River and thirteen subbasins (see Map 4.1), most of which are open for recreational fishing of Coho Salmon, Steelhead, and Trout (Kronsberg, et al. 2018: 25).



Fig. 4.1. Antonio Salgado Describes Millicoma Hatchery Classroom Use. Photo by Hunter Black-Priest, April 30, 2019.

Logs, boulders, and natural debris has been removed from spawning grounds in the streams and rivers to encourage the flow of water. Previously diverted streams had been set back to their natural course by adding (1) logs for habitat and gravel for spawning in Joe’s Creek, (2) willow trees to stabilize the bank and slow sediment flow on Big Creek, and (3) fish ladders for access on Elk Creek (Kronsberg, et al. 2018: 25).



Map 4.1. Elliott State Forest 13 ODF Planning Subbasins (Decker, et al. 2011: xix).

Species	J	F	M	A	M	J	J	A	S	O	N	D
Winter Steelhead		X	X									
Rainbow Trout			X	X	X	X						
Cutthroat Trout			X	X	X							
Yellow Perch			X	X	X	X	X	X	X	X	X	
Largemouth Bass			X	X	X	X	X	X	X	X		
Catfish				X	X	X						
Coho Salmon										X	X	X

Table 4.1 Oregon Fishing Seasons for Elliott Area Fish (ODFW 2019b: 12-21).

Fish hatcheries, where artificial breeding, hatching, and rearing occurs, are used to encourage the recreational activity of fishing in the Elliott. The Millicoma hatchery provides Chinook to the river. Fisherman with proper tags and licenses may fish year long with salmon in the winter and spring, steelhead in the winter, and trout in the spring and summer.

Current Use in the Elliott

Most people go to the West Fork Millicoma Hatchery to fish (Antonia Salgado, personal communication, April 15, 2018). Additional rivers and streams are much more remote and difficult to get to. Although some fishing does occur within the forest, the rivers and streams mainly contain native fish which cannot be kept. According to Hofenbredl, et al., during the winter, steelhead attract nearly 50 people at a time. In the following seasons, only about four to five people a week can be found fishing in the river. There is a pond behind the Millicoma hatchery that parents can bring their kids to for easier fishing that is stocked with fish year round and can be used for sightseeing as well as educating elementary school kids about the various types of fish, the fish hatchery itself, and how hatcheries can be beneficial for both the Elliott State Forest and the ecosystem Kronsberg, et al. 2018: 24-27).

Barriers to Accessibility

Although the Millicoma Hatchery is the most established and popular fishing spot within the Elliott, an annual fishing tournament occurs on Ten Mile Lake brings nearly several hundred people to the Elliott each year (Amelia Harvey, personal communication, June 4, 2019). There are many different barriers that make it hard for people to access. Roads, which can be steep in some places and are uneven in others, are difficult to drive on. Another barrier is the lack of posted signs to assist in guiding people to the hatchery and to warn people of what areas they are allowed to fish and what areas they cannot.

Recommendations for Improvement

The state should continue to improve fish habitats within the Elliott to help establish fish populations. With regards to fishing access, the state should encourage recreational fishing at the Millicoma Hatchery/Boy Scout Camp since there is little that can be done to improve the accessibility of other fishing spots within the Elliott. Some recommendations to help improve the development and use of the recreation area in the Elliott State forest is to put up directional signs to assist in guiding people to the hatchery. If we can eliminate the problems outlined above, more people would be able to make their way to the hatchery and be able to enjoy their experience fishing in the Elliott.

Funding

Because federal and state agencies encourage fish habitat restoration, there are many grant opportunities that will assist with funding. A controversial topic regarding funding is issuing a "Fishing Pass." Contrary to previous recommendations, I recommend that issuing a small fee of \$5 per person would be a reasonable price to pay for a day's worth of fishing access within the Elliott. Although the fee would not generate a substantial income, the small profit would be enough to assist in the upkeep of popular fishing spots.

Part 5: Wildlife Recreation: Hunting, Trapping, and Birdwatching

By: Amelia Harvey, Hunter Black-Priest, and Kelsey Morrison

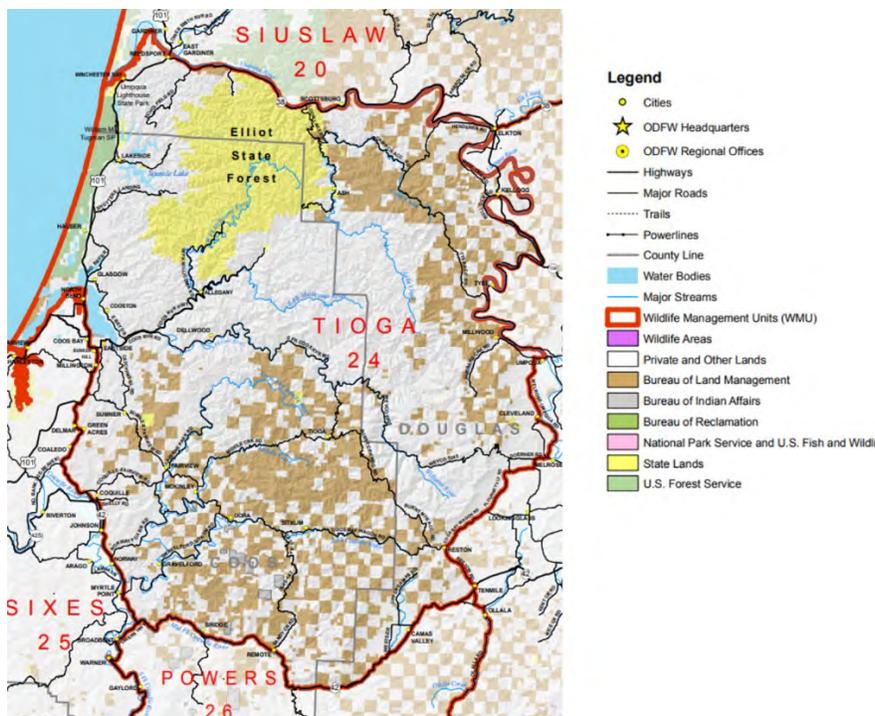
This chapter is built upon chapter 9 “Birds and Birding” By Matthew Smith, Daniel Patton, and Tara Boyd (Kronsberg, et al. 2018: 31-36) and chapter 10 “Hunting and Trapping” By Abigail Richards, Cody Harkins, and Matthew Hofenbredl (ibid.: 37-40) in the *2018 Draft Elliott State Forest Recreation Plan*.

Hunting

Hunting is the activity or sport of perusing wild game; it has been a tradition in the Elliott for many years and will continue for years to come. The Gould family that lived on Elkhorn Ranch in the 1960’s has used hunting as a means for survival as well as many other families including my own do today. Big game is most commonly hunted which includes bear, elk, deer, cougar, etc. Small game is less common but still occurs, this includes, coyotes: rabbit, squirrel. Birds such as quail, grouse and turkey can also be hunted in the Elliot.



Fig. 5.1. Amelia Harvey and Black Bear. Johnson Creek, Elliott State Forest, May 24, 2018 photograph by Alex Harvey.



Map 5.1. Elliott State Forest in Relation to Tioga Hunting Unit (Kronsberg, et al. 2018: 38).

Big Game

Bear, elk and deer are the most common big game animals found in the Elliott. Hunting in the Elliott is challenging due to the fact that there is no logging or clearcutting, which means that it is very dense forests making it hard to spot animals. Compared to other areas of the Tioga unit the Elliott is much less desirable because it is much harder hunting.

Table 5.1. Oregon Big Game Hunting Seasons, Jan. 2019- Feb. 2020 (ODFW 2019a: 24-62) .

Species	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Elk (Rifle)											X			
Elk (Bow)													X	
Deer (Rifle)									X		X			
Deer (Bow)								X	X					
Bear								X				X		
Cougar	X											X		

Small Game

Small game species provide a variety of hunting opportunities throughout the state and are an excellent way to introduce new hunters to hunting . . . There are three major categories of small game in Oregon, Western Gray Squirrel, unprotected mammals, and furbearers.” (ODFW 2019a: 63).

Table 5.2. Oregon Small Game Hunting Seasons, Jan. 2019-Feb. 2020 (ODFW 2019a: 63).

Species	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Squirrel								X			X			
Rabbit/Hare	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Coyotes	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Birds



Fig. 5.2. Jenna Goin with grouse, near Elkhorn Ranch, September 22, 2018. Photo by Amelia Harvey.

Bird hunting in the Elliott is a great recreational activity already used by “regulars”. Although it is not well known in the Elliott, there is that opportunity. Many people hunt near elkhorn for game birds such as grouse and quail. Others hunt for waterfowl down at the mouth of 10-mile lake.

Table 5.3. Oregon Game Bird Seasons, Jan. 2019- Feb. 2020 (ODFW 2018b: 17-22).

Species	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Grouse									X				X	
Turkey				X	X					X		X		
Quail									X			X	X	
Banded-Tailed Pigeon									x					
Duck/ Coot										x	x	x	x	
Goose	x	x	x							x	x	x	x	x

Trapping

Although trapping in the Elliott is unfrequently done there are plenty of opportunities for recreationists to pursue many different types of wildlife trapping. “By action of the 1985 Oregon Legislature, all trappers born after June 30, 1968, and all first-time Oregon trappers of any age are required to complete an approved trapper education course.” (ODFW 2018b: 4). All trappers must also acquire a Fur taker’s license or a hunting license.

Table 5.4. Oregon Furbearer Trapping Seasons, Jan. 2019-Feb. 2020 (ODFW 2018a: 4).

Species	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Badger	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Beaver											X		X	
Bobcat												X		X
Coyote	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gray Fox											X			X
Marten											X		X	
Mink											X			
Muskrat											X			
Opossum	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Porcupine	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Raccoon											X			
Red Fox										X			X	
River Otter											X			
Skunk	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Potential for School Trust Advantage

Hunting and trapping can possibly bring money in for the School trust fund. This would allow further enhancements in the forest such as creating or vehicle accessible roads, hiring experts for private/controlled hunts, and ultimately creating revenue. Building hunting/trapping camps inside the Elliott for the public will help create even more revenue. By charging the public to use these places, such as a campground, it could put money into the school fund. In Coos County, there are several successful campgrounds (e.g., Laverne or Tenmile County Park) that charge the public for use, and run it based off of those funds (Kronsberg, et al. 2018: 40).

Recommendations

There are issues that have arisen within the Elliott in terms of hunting. The Elliott State Forest currently lies within the Tioga Unit, “unit twenty-four” (see Map 5.1). In terms of hunting, the Elliott could be one of the best hunting locations but road conditions are undesirable. Hunters have a difficult time finding the animals, which could be caused by the thick brush, lack of clear-cuts, and vast area with little access (Kronsberg, et al. 2018: 40). To improve habitat conditions throughout the Elliott ideas such as: selective clear cutting, commercial spraying, brush clearing and controlled burns need to be considered. This will help minimize the unnecessary amount of brush, invasive plant species, and timber damage within the forest. The State Land Board should be contacted in order to research the possibility of guided hunts within the Elliott. A plan could be created for implementing access permits for specific hunting areas and installing gates to help control access and damage to the roads. Contacting the Oregon Hunters Association to set up fundraisers aimed toward local hunters could help raise money for road and trail improvements.

Birdwatching

Currently, birding in the Elliott is just used as a recreational activity, however, there is little to no precise data on locations of bird nesting grounds or migration patterns in the Elliott which make these activities difficult.

Income / School Trust Fund Potential

According to Richards, et al. There is potential for School Trust Funds by selling birding merchandise and memorabilia (i.e. magnets, coffee cups, posters, etc.) could be another potential, however the margin may not be as great. There would need to be an area to purchase said merchandise such as a gift shop. Another option for distribution could be a partnership with a local business in exchange for advertisement. Birding passes could be a possibility that could potentially become profitable. The “Oregon Birding Association” awards grants up to \$750 for each project that promotes “education, enjoyment, conservation, and science of birds and birding in Oregon”. This could be a great opportunity for income to at least start a birding project for the Elliott. (Kronsberg, et al. 2018: 36)

Barriers to Development

Due to the conditions of the road ways going into the Elliot it is hard for individuals to access

most of the prime areas for bird watching. With the steep terrain and poorly maintained roadways and the Lack of signage to know where to find certain bird habitat people are often deterred from using this as a birding site. Another concern is the lack of any trail systems and the trails that are in place have not had any upkeep.



Fig. 5.3. Two Barn Swallows. Photo by Daniel Patton, BLM Elk Viewing Area, May 22, 2018.)



Fig. 5.4. Red-Winged Blackbird. Photo by Daniel Patton, BLM Elk Viewing Area, May 22, 2018.

Recommendations for/against Development

To improve birding and bird habitat throughout the Elliott, the Audubon Society should be contacted to consider doing studies on bird nesting location and migration patterns. Planning recreational development around the nesting seasons of sensitive bird species should also be implemented. Adding educational signs for specific nesting areas, habitats, and trails specifically for bird watching would be beneficial. Road maintenance also needs to be done to make it accessible for everyone to have easier access to birding areas.

Part 6: Recreation Economics in the Elliott

By Sebastian Bartlett, Koby Etwiler, Gabriella Jones

This chapter assimilates work done in chapter 12 by Scott Guthrie, Amy Kronsberg, Maggie Boone in the *2018 Draft Elliott State Forest Recreation Plan* (Kronsberg, et al. 2018: 44-46).



Second growth timber stand two miles upstream from the Elkhorn Ranch. Photo by Sebastian Bartlett, October 23, 2018.

Current Recreational Uses

Traditionally managed from a harvest perspective, no research has been done the recreational uses and attractions found on the Elliott. Due to the harvest centric model for the forest no plans have ever been applied towards managing and capitalizing on recreation in the Elliott. According to Jerry Phillips (personal communication, June 3, 2019), this was by design in order to concentrate on timber sales and in order not to incur related expenses, such as maintaining portable toilets, processing garbage, or monitoring campsites.

The Elliott is used only occasionally for recreational use, and mostly by local residents who hunt and fish at certain times of the year, depending on legal seasons, fish runs, and the availability of

game animals. Elk and deer populations are seen as in decline, possibly due to conifer growth, while black bear populations remain high, according to Amelia Harvey (see Fig. 5.1).

Direct Income vs. Economic Impact

In order to discuss potential areas of profit it is important to differentiate between direct income and economic impact. Direct income is the money that is generated by sale of goods, services and experiences. Economic impact involves assessing an attraction's effect on local economies; e.g. the sale of gasoline, food and places to stay while travelling to and visiting:

“Typically, revenue is tied to fees or licenses (and sometimes taxes such as hunting and fishing equipment), which will best relate to camping, hunting, fishing, and general day use. Another meaning could be based on economic impact analysis where direct spending by visitors (food, gas, lodging, fees, clothes, souvenirs, etc.) generates income for people that work in related sectors (restaurants, hotels, gas stations, retail outlets, etc.)” (Randy Rosenberger: personal communication, May 27, 2019)

The Elliott has the potential to be used for a variety of recreation resources, generating income such as user fees from camping and hiking, as well as timber harvests and leasing land. In order to determine how the Elliott would maintain itself, first we must know what uses are best suited to the local population and what could draw people in from out of the area.

Here is a breakdown of the average revenue generated per activity per day compared with estimated gross annual receipts for the same activities for Douglas and Coos Counties. This data is inclusive of indirect profits generated in the surrounding area. Information was gathered from Forest Service regional and national data and from statewide OSU research for Oregon.

Table 6.1 National average revenue per activity per day, compared with economic impact of Elliott State Forest counties (Rosenberger et al. 2017: 06-19; Rosenberger 2018: 35-44).

Activity	US Daily Gross Income Per Person Per Day	Douglas Co. Annual Income	Coos Co. Annual Income
Backpacking	\$17.04	\$5,059,069	\$4,978,610
Biking	\$98.94	\$8,227,807	\$25,686,761
Cross-Country skiing	\$36.84	\$2,762,239	\$2,502,179
Developed camping	\$22.99	\$35,929,674	\$26,501,535
Fishing	\$72.59	\$66,525,354	\$78,245,564
Hiking	\$78.19	\$35,395,299	\$54,927,213
Hunting	\$76.72	\$46,902,763	\$34,339,693
Motorized boating	\$42.48	\$10,953,278	\$8,034,470
Nature related	\$63.46	\$81,712,262	\$65,412,195
Off-highway vehicle use	\$60.61	\$30,569,298	\$34,902,815
Other recreation	\$62.06	N/A	N/A
Picnicking	\$31.98	\$23,564,694	\$17,559,556
Non-motorized boating	\$114.12	N/A	N/A

The top generators for income would be non-motorized boating, biking, hiking, hunting and fishing. Since these are all activities occurring in the Elliott, I believe they should be promoted in order to help generate money for the Common School Fund

“Economic impacts or outcomes are typically associated with changes in sales, tax revenues, income and jobs due to spending on outdoor recreation activity.” (Rosenberger et al. 2017: 6)

This information correlates to an assessment done in 2014 on the economic opportunities in the Elliott. The paper, titled *Options for the Monetization of the Elliott State Forest*, determines several options for the forest. It states that recreation opportunities will not provide more income than logging, due to a lack of special attractions and low surrounding population (Simms et al. 2014: 31). While recreation would provide an influx of money into the community, the amount that it could generate directly for the Common School Fund would be minimal in contrast to logging.

While there is significant income generated from several of these activities, the money generated is widespread across various entities such as local business and government. This makes it difficult to justify recreation as a primary income generator. While the overall economic impact is positive, the direct income generated for the Common School Fund would be limited.

Potential for school trust advantage

Although it may be difficult to generate significant direct income for the common school fund, with selective logging to cover maintenance and installation costs of signage and facilities, the Elliott can be self-sufficient at a minimum. The value of well-educated students with even a minimal understanding of nature should not be underestimated, and the Elliott could be an outdoor and/or online classroom for K-12 and higher education alike. Therein lies its true value, one that is hard to attach a monetary value to.

The Elliott could generate revenue for the Common School Fund if it is managed from a perspective of multiple use. The forest was set aside to provide for the students of Oregon, and it should do so via monetary contributions to the Common School Fund or by providing education opportunities for school children, college students and the general populace while funding its own maintenance.

Barriers to development

Startup costs for certain venues would consist of creating pull-offs and vistas on the roads, developed campgrounds, visitor signs for navigation and education and the creation of trails. To provide access for students and people wishing to recreate roads must be passable, which means gravel, ditches, brushing sides of roads, culverts, signage and downed trees. This all requires not only man hours but material, and in most cases the operation of heavy machinery. There also needs to be areas created for use such as trails, camping and vistas.

The cost liability of the forest over the past 20 years must be taken into consideration. Due in part to the listing of several endangered species, significant decline in timber revenue occurred beginning in the 1990's. Alternative sources of funding are a necessity.

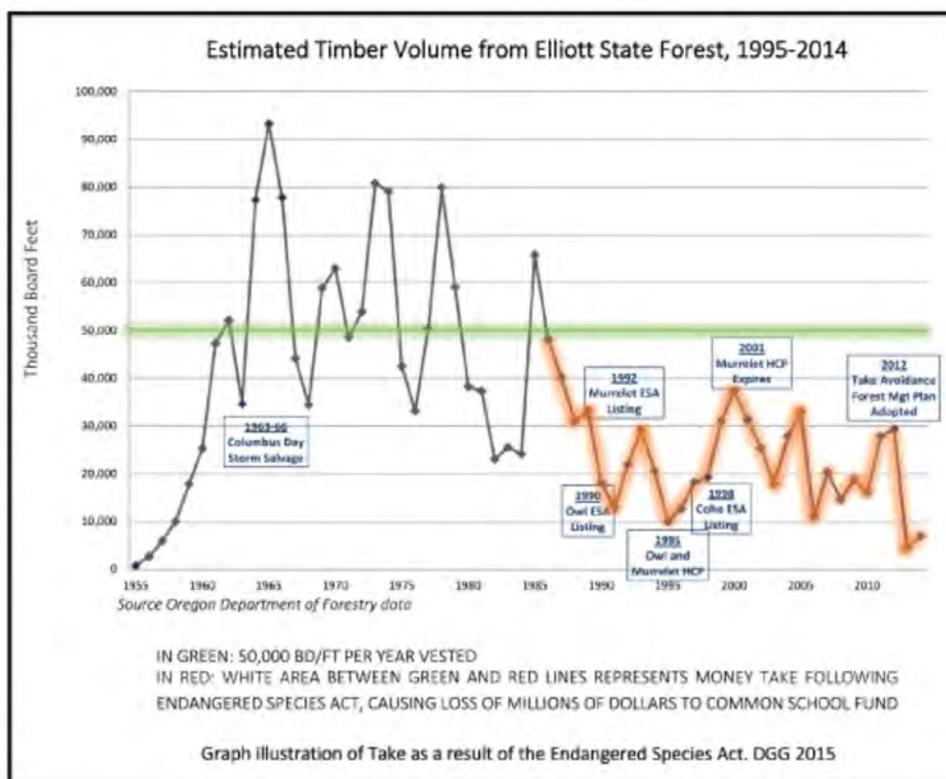


Fig. 6.2. Elliott Timber Volumes and Endangered Species Act, 1955-2014 (Kronsberg, et al. 2018: 44)

Recommendations

I recommend strategically logging areas in the Elliott, maintaining its productivity and increasing recreational value in certain areas by opening vistas to see the ocean and dunes, as well as creating early seral habitat for ungulates. These cuts will generate money for management costs, and any excess should go to the Common School Fund.

Surveys are another thing that needs to have urgent consideration and implementation. Surveys may be passive or active, either providing them at entrances or going out in person to talk to users. Planning for recreation cannot occur without the who, what, when, where, and why. User groups need to be accounted for and intensively trafficked roads identified.

Creating ATV trails would provide additional areas for people attracted to the area for riding on the dunes and Coos County Forest. The trails would provide a different experience, providing a sharp contrast to how hectic riding on the sand can be. The trails would appeal to subgroups of ATV riders that want to enjoy views, have privacy and more family-oriented fun. Trails could be created on recent timber cuts, including their construction in the logging plan. Providing more

area to ride would help minimize impact and user density in the surrounding area, leading to a generally better user experience.

In order to generate money, the Elliott should apply special fees and licenses within its borders, capitalizing on camping, hiking and hunting opportunities. Timber harvests provide the most viable opportunity to generate revenue. Many areas would experience extensive improvements from logging such as viewpoints and campsites. Logging also provides an educational and recreational opportunity by having a working forest that can be observed by college and K12 students alike. People will have the opportunity to visit a forest that has stands ranging from recent disturbance to trees in excess of 80 years old.

Before any of this can be implemented, the forest must have several improvements made to it. The priority is immediate action installing directional signage, as well as an inventory of roads and making sure they are being maintained. These should happen this summer, along with surveys on current use.

Recommendations: Elliott Recreation Timeline Priorities

By Sebastian Bartlett

Students recommended improvements that require immediate attention, as well as potential sources of revenue for the Common School Fund. Students were encouraged to recommend when these actions should occur, either immediately or short and long term.

The Common School Fund needs to maintain its properties for the safety of its users. Continued use without maintenance and management will lead to further degradation of this asset.

Recreational activities in the forest would help finance the Common School Fund or at least help to alleviate the costs of recreational opportunities. Primary funding is found in the Elliott's timber stocks and capability to continue growing new trees for eventual harvest. A tourist attraction could be the fact that the Elliott is a working forest, working directly for Oregon's school children, and that it has 550 miles of historic roads and trails for management access, education, and recreation.

Here is a prioritized summary of the 2018 and 2019 SWOCC F251 student recommendations:

Table 6.2. Prioritized Timeline of Recommendations, June 21, 2019.

Immediate Action	This summer	Next year	Long Term
Directional signage	Road and trail inventory	Hiking, horse, and ATV trail planning	Develop trails and campgrounds
	Road maintenance	Campsite inventory	Fishing and hunting improvements
	Maps	Visitor Surveys	Local schools and businesses involved
			Educational signs and guided tours

For recreation to occur and be promoted in the boundaries of the Elliott, signage was the primary recommendation. This is the same as last year and is being recommended again because no signage has been installed or planned.

We recommend that first signage be made a priority. For interested parties to pursue development in the forest they must be able to navigate the Elliott. Right now, this is very difficult due to no road signs, an extensive historical road system and outdated maps. A few signs at key points would go a long way toward helping emergency response teams find people in distress, as well as encourage recreation. Funding for signage should come immediately from the Common School Fund.

Secondly, the group recommended various permits for harvest and access that could generate revenue directly for the Common School Fund and maintenance of the forest, as well as gather user data and regulate access. These permits could limit use in certain areas adding to their value or generate income from current harvest practices of berries and mushrooms and game.

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Appendix A. Animals: Native and Exotic Mammals of the Elliott
 By Daniel Patton, Tara Boyd, and Matthew Smith (Kronsberg 2018: 18-19)



Fig. A.1. Bull Elk, BLM Elk Viewing Area, June 21, 2018. Photo by Bob Zybach.

Common Name	Latin Name	Status
Bear, Black	<i>Ursus americanus</i>	Game Animal
Cougar	<i>Felis concolor</i>	Game Animal
Deer, Black-Tailed	<i>Odocoileus hemionus columbianus</i>	Game Animal
Elk, Roosevelt	<i>Cervus elaphus roosevelti</i>	Game Animal
Squirrel, Gray	<i>Sciurus griseus</i>	Game Animal
Nutria	<i>Myocastor coypus</i>	Introduced Exotic
Opossum	<i>Didelphis virginiana</i>	Introduced Exotic
Bat, Big Brown	<i>Eptesicus fuscus</i>	Native Wildlife
Bat, Little Brown	<i>Myotis lucifugus</i>	Native Wildlife
Beaver	<i>Castor canadensis</i>	Native Wildlife
Bobcat	<i>Felis Rufus</i>	Native Wildlife
Chipmunk	<i>Tamias townsendii</i>	Native Wildlife
Coyote	<i>Canis latrans</i>	Native Wildlife
Ermine	<i>Mustela erminea</i>	Native Wildlife
Fox, Gray	<i>Urocyon cinereoargenteus</i>	Native Wildlife
Hare, Snowshoe	<i>Lepus americanus</i>	Native Wildlife
Mink	<i>Mustela vison</i>	Native Wildlife

Mole, Coast	<i>Scapanus orarius</i>	Native Wildlife
Mole, Shrew	<i>Neurotrichus gibbsii</i>	Native Wildlife
Mole, Townsend's	<i>Scapanus townsendii</i>	Native Wildlife
Mountain Beaver	<i>Aplodontia rufa</i>	Native Wildlife
Mouse, Deer	<i>Peromyscus maniculatus</i>	Native Wildlife
Mouse, Jumping	<i>Zapus trinitatus</i>	Native Wildlife
Muskrat	<i>Ondatra zibethicus</i>	Native Wildlife
Otter, River	<i>Lutra canadensis</i>	Native Wildlife
Porcupine	<i>Erethizon dorsatum</i>	Native Wildlife
Rabbit, Brush	<i>Sylvilagus bachmani</i>	Native Wildlife
Raccoon	<i>Procyon lotor</i>	Native Wildlife
Ring-Tailed Cat	<i>Bassariscus astutus</i>	Native Wildlife
Shrew, Fog	<i>Sorex sonomae</i>	Native Wildlife
Shrew, Pacific	<i>Sorex pacificus</i>	Native Wildlife
Shrew, Marsh	<i>Sorex bendirii</i>	Native Wildlife
Shrew, Trowbridge's	<i>Sorex trowbridgii</i>	Native Wildlife
Shrew, Vagrant	<i>Sorex vagrans</i>	Native Wildlife
Skunk, Spotted	<i>Spilogale gracilis</i>	Native Wildlife
Skunk, Striped	<i>Mephitis mephitis</i>	Native Wildlife
Squirrel, Douglas'	<i>Tamiasciurus douglasii</i>	Native Wildlife
Squirrel, Ground	<i>Spermophilus beecheyi</i>	Native Wildlife
Squirrel, Flying	<i>Glaucomys sabrinus</i>	Native Wildlife
Vole, Creeping	<i>Microtus oregoni</i>	Native Wildlife
Vole, Long-Tailed	<i>Microtus longicaudus</i>	Native Wildlife
Vole, Townsend's	<i>Microtus townsendii</i>	Native Wildlife
Vole, Red-Backed	<i>Clethrionomys californicus</i>	Native Wildlife
Weasel	<i>Mustela frenata</i>	Native Wildlife
Woodrat, Bushy-Tailed	<i>Neotoma cinerea</i>	Native Wildlife
Woodrat, Dusky-Footed	<i>Neotoma fuscipes</i>	Native Wildlife
Bat, California	<i>Myotis californicus</i>	Oregon Species of Concern
Bat, Hoary	<i>Lasiurus cinereus</i>	Oregon Species of Concern
Marten	<i>Martes americana</i>	Oregon Species of Concern
Fisher	<i>Martes pennanti pacifica</i>	US Candidate Species
Bat, Fringed	<i>Myotis thysanodes</i>	US Species of Concern
Bat, Long-Eared	<i>Myotis evotis</i>	US Species of Concern
Bat, Long-Legged	<i>Myotis volans</i>	US Species of Concern
Bat, Silver-Haired	<i>Lasionycteris noctivagans</i>	US Species of Concern
Bat, Big-Eared	<i>Corynorhinus townsendii</i>	US Species of Concern
Bat, Yuma	<i>Myotis yumanensis</i>	US Species of Concern
Vole, Red Tree	<i>Phenacomys longicaudus</i>	US Species of Concern
Vole, White-Footed	<i>Phenacomys albipes</i>	US Species of Concern

Appendix B: Birds: Native and Exotic Birds of the Elliott

By Matthew Smith, Tara Boyd, and Daniel Patton (Kronsberg, et al. 2018: 33-35).



Fig. B.1. Two Barn Swallows, BLM Elk Viewing Area, May 22, 2018. Photo by Daniel Patton,

Common Name	Species Name	Status
Chickadee, Black-Capped	<i>Poecile atricapillus</i>	Endemic Native
Chickadee, Chestnut-Backed	<i>Poecile rufescens</i>	Endemic Native
Corvus Crow	<i>Corvus brachyrhychos</i>	Endemic Native
Corvus Raven	<i>Corvus corax</i>	Endemic Native
Creep, Brown	<i>Certhia americana</i>	Endemic Native
Crossbill, Red	<i>Loxia curvirostra</i>	Endemic Native
Dipper, American	<i>Cinclus mexicanus</i>	Endemic Native
Finch, Purple	<i>Carpodacus purpureus</i>	Endemic Native
Flicker, Northern	<i>Colaptes auratus</i>	Endemic Native
Grosbeak, Evening	<i>Coccothraustes vespertina</i>	Endemic Native
Heron, Great Blue	<i>Ardea herodias</i>	Endemic Native
Jay, Gray	<i>Perisoreus canadensis</i>	Endemic Native
Jay, Steller's	<i>Cyanocitta stelleri</i>	Endemic Native
Jay, Western Scrub	<i>Aphelocoma californica</i>	Endemic Native
Junco, Dark-Eyed	<i>Junco hyemalis</i>	Endemic Native
Kinglet, Golden-Crowned	<i>Regulus satrapa</i>	Endemic Native
Nuthatch, Red-Breasted	<i>Sitta canadensis</i>	Endemic Native
Owl, Barred	<i>Strix varia</i>	Endemic Native

Owl, Great Horned	<i>Bubo virginianus</i>	Endemic Native
Owl, Northern Pygmy	<i>Glaucidium gnoma</i>	Endemic Native
Owl, Northern Saw-Whet	<i>Aegolius acadicus</i>	Endemic Native
Owl, Western Screech	<i>Otus kennicottii</i>	Endemic Native
Siskin, Pine	<i>Carduelis pinus</i>	Endemic Native
Sparrow, Fox	<i>Passerella iliaca</i>	Endemic Native
Sparrow, Song	<i>Melospiza melodia</i>	Endemic Native
Thrush, Varied	<i>Ixoreus naevius</i>	Endemic Native
Towhee, Spotted	<i>Pipilo erythrophthalmus</i>	Endemic Native
Vireo, Hutton's	<i>Vireo huttoni</i>	Endemic Native
Woodpecker, Downy	<i>Picoides pubescens</i>	Endemic Native
Woodpecker, Hairy	<i>Picoides villosus</i>	Endemic Native
Woodpecker, Pileated	<i>Dryocopus pileatus</i>	Endemic Native
Wren, Winter	<i>Troglodytes troglodytes</i>	Endemic Native
Wrentit	<i>Chamaea fasciata</i>	Endemic Native
Sparrow, House	<i>Passer domesticus</i>	Exotic
Starling, European	<i>Sturnus vulgaris</i>	Exotic
Dove, Rock	<i>Columba livia</i>	Exotic Oregon Game
Blackbird, Red-Winged	<i>Agelaius phoeniceus</i>	Migratory
Bunting, Lazuli	<i>Passerina amoena</i>	Migratory
Cowbird, Brown-Headed	<i>Molothrus ater</i>	Migratory
Flycatcher, Hammond's	<i>Empidonax hammondii</i>	Migratory
Flycatcher, Pacific-Slope	<i>Empidonax difficilis</i>	Migratory
Goldfinch, American	<i>Carduelis tristis</i>	Migratory
Grosbeak, Black-Headed	<i>Pheucticus melanocephalus</i>	Migratory
Hawk, Cooper's	<i>Accipiter cooperii</i>	Migratory
Hawk, Red-Tailed	<i>Buteo jamaicensis</i>	Migratory
Hawk, Sharp-Shinned	<i>Accipiter striatus</i>	Migratory
Heron, Green	<i>Butorides virescens</i>	Migratory
Hummingbird, Anna's	<i>Calypte anna</i>	Migratory
Hummingbird, Rufous	<i>Selasphorus rufus</i>	Migratory
Kestrel, American	<i>Falco sparverius</i>	Migratory
Killdeer	<i>Charadrius vociferus</i>	Migratory
Kingfisher, Belted	<i>Ceryle alcyon</i>	Migratory
Nighthawk, Common	<i>Chordeiles minor</i>	Migratory
Oriole, Northern	<i>Icterus galbula</i>	Migratory
Osprey	<i>Pandion haliaetus</i>	Migratory
Pewee, Western Wood	<i>Contopus sordidulus</i>	Migratory
Robin, American	<i>Turdus migratorius</i>	Migratory
Sapsucker, Red-Breasted	<i>Sphyrapicus ruber</i>	Migratory
Solitaire, Townsend's	<i>Myadestes townsendi</i>	Migratory
Sparrow, Chipping	<i>Spizella passerina</i>	Migratory
Sparrow, White-Crowned	<i>Zonotrichia leucophrys</i>	Migratory
Swallow, Barn	<i>Hirundo rustica</i>	Migratory
Swallow, Cliff	<i>Petrochelidon pyrrhonota</i>	Migratory

Swallow, Tree	<i>Tachycineta bicolor</i>	Migratory
Swallow, Violet-Green	<i>Tachycineta thalassina</i>	Migratory
Swift, Vaux's	<i>Chaetura vauxi</i>	Migratory
Tanager, Western	<i>Piranga ludoviciana</i>	Migratory
Thrush, Hermit	<i>Catharus guttatus</i>	Migratory
Thrush, Swainson's	<i>Catharus ustulatus</i>	Migratory
Vireo, Cassin's	<i>Vireo cassinii</i>	Migratory
Vireo, Warbling	<i>Vireo gilvus</i>	Migratory
Vulture, Turkey	<i>Cathartes aura</i>	Migratory
Warbler, Black-Throated Gray	<i>Dendroica nigrescens</i>	Migratory
Warbler, Hermit	<i>Dendroica occidentalis</i>	Migratory
Warbler, MacGillivray's	<i>Oporornis tolmiei</i>	Migratory
Warbler, Nashville	<i>Vermivora ruficapilla</i>	Migratory
Warbler, Orange-Crowned	<i>Vermivora celata</i>	Migratory
Warbler, Townsend's	<i>Dendroica townsendi</i>	Migratory
Warbler, Wilson's	<i>Wilsonia pusilla</i>	Migratory
Warbler, Yellow	<i>Dendroica petechia</i>	Migratory
Warbler, Yellow-Rumped	<i>Dendroica coronata</i>	Migratory
Waxwing, Cedar	<i>Bombycilla cedrorum</i>	Migratory
Wren, House	<i>Troglodytes aedon</i>	Migratory
Yellowthroat, Common	<i>Geothlypis trichas</i>	Migratory
Nuthatch, White-Breasted	<i>Sitta carolinensis</i>	Oregon Endemic Sensitive
Duck, Merganser	<i>Mergus merganser</i>	Oregon Game
Grouse, Blue	<i>Dendragapus obscurus</i>	Oregon Game
Grouse, Ruffed	<i>Bonasa umbellus</i>	Oregon Game
Dove, Mourning	<i>Zenaida macroura</i>	Oregon Game Migratory
Duck, Hooded Merganser	<i>Lophodytes cucullatus</i>	Oregon Game Migratory
Duck, Wood	<i>Aix sponsa</i>	Oregon Game Migratory
Duck, Harlequin	<i>Histrionicus histrionicus</i>	Oregon Game US Concern
Pigeon, Band-Tailed	<i>Columba fasciata</i>	Oregon Game US Concern
Quail, Mountain	<i>Oreortyx pictus</i>	Oregon Game US Concern
Bluebird, Western	<i>Sialia mexicana</i>	Oregon Migratory Sensitive
Falcon, Peregrine	<i>Falco peregrinus</i>	Oregon Migratory Strategic
Eagle, Bald	<i>Haliaeetus leucocephalus</i>	Oregon Threatened Strategic
Goshawk, Northern	<i>Accipiter gentiles</i>	US Concern
Flycatcher, Little Willow	<i>Empidonax trailii brewsteri</i>	US Migratory Concern
Flycatcher, Olive-Sided	<i>Contopus cooperi</i>	US Migratory Concern
Martin, Purple	<i>Progne subis</i>	US Migratory Concern
Murrelet, Marbled	<i>Brachyramphus marmoratus</i>	US Threatened
Owl, Northern Spotted	<i>Strix occidentalis</i>	US Threatened

Appendix C: Elliott Forest Educational Field Trips

By Koby Etwiler

The Southwestern Oregon Community College spring term Recreation Resource Management class went on five field trips this year, where we gathered information and knowledge on which much of this report was based on. On each field trip, Dr. Bob Zybach provided the students with 10- to 20-page handouts detailing the stops we made and a little bit of information about them. A summary of each field trip as well as recommendations for future trips are included, along with a map outlining the path of the trip constructed by Koby Etwiler using the AllTrails App on his smartphone. Recommendations were written with the help of Kelsey Morrison and Kainoa Altier.



Fig. C.1. “Below the Falls” Photo taken during Golden and Silver Falls Field Trip by Koby Etwiler.

1. Elliott History Field Trip (April 23, 2019)	44
2. Millicoma Fish Hatchery Field Trip (April 30, 2019)	45
3. Deans Mountain Field Trip (May 14, 2019)	46
4. Loon Lake Field Trip (May 21, 2019)	47
5. Golden and Silver Falls Field Trip (May 28, 2019)	48

1. April 23rd, 2019 Elliott History Field Trip

During the first field trip of the year, our class gained insight into Elliott’s history with the one who knows it best: Jerry Phillips. The trip was largely a “windshield cruise” with a few stops for explanations and a couple opportunities to get out of the car. For several of us, it was our first time in the Elliott, for others, their hundredth. We stopped at the entrance to the forest and Trail Butte, but didn’t get out of the bus. Instead, we learned a bit about the history before proceeding to the next spot. We did, however, get out at a camping spot along the river (**Fig. 1**) and accompanied Jerry for his first time to the newly renamed Jerry Phillips Reserve. For those of us on the trip, our favorite parts were learning the history of the places we looked at, seeing the amount of pure nature, and when we were able to get out and experience everything hands on. On the other hand, we noted the complete lack of signage, labels of locations, and we all wished we got to spend more time in each of the locations. This was a good field trip, but if Jerry hadn’t been there to give a lot of background, the lack of signage would have made it hard. No AllTrails map was available for this trip.



Fig. C.2. “Jerry Phillips Reserve.” Jerry Phillips, Bob Zybach, and SWOCC F251 Forest Recreation students on “Elkhorn Ranch” Elliott State Forest history field trip. Photo by Hunter Black-Priest, April 23, 2019.

2. April 30th, 2019 Millicoma Fish Hatchery Field Trip

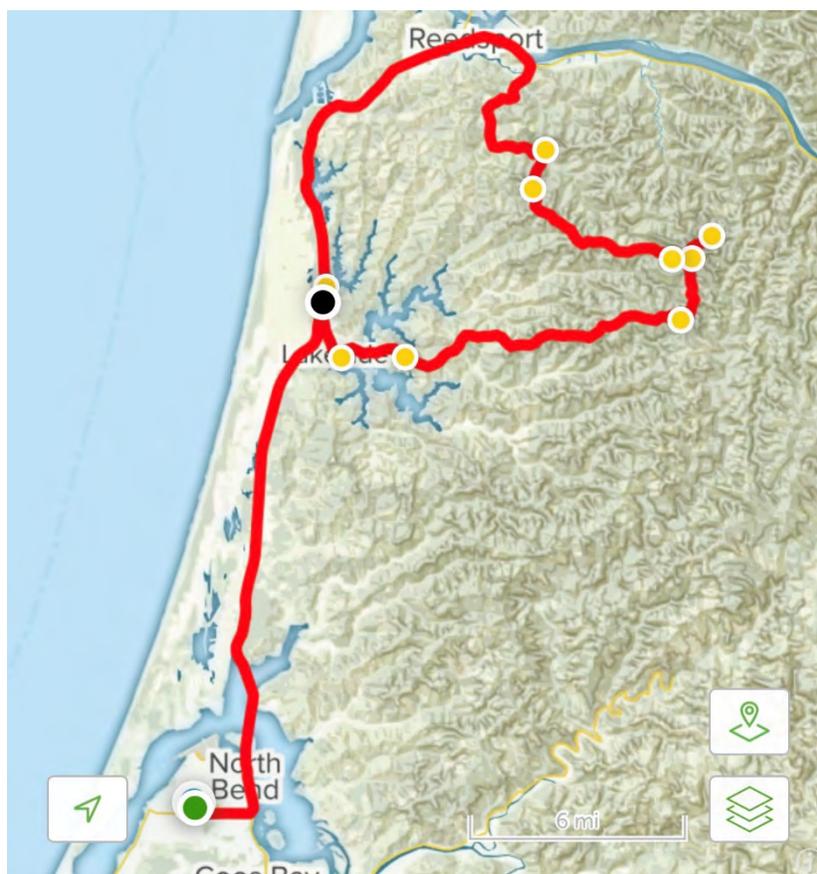
On this field trip we went to fewer locations, but we got to spend more time out of the bus which was much better. We took a different route to the Elliott, driving by the Allegheny Historical Steamboat landing and discussing its history before stopping at the Boy Scout Camp. There we learned about its history, current situation, and what ideas they have to fund it moving forward. We spent a little bit of time by the water's edge with Antonio Salgado talking about the salmon smolt in there before walking over to the fish hatchery, looking at the facility and learning more about what they do there. In a personal communication, Kelsey Morrison stated that, "Antonio has a great program for education at the fish hatchery and I really feel if they were able to expand what they currently have with funding, it would lead to even more of a desire for people to come visit." After that, we made our way through the forest, stopping again at the Trail Butte, but this time getting a chance to get out and enjoy the view before proceeding onwards. We exited through a gated part of the forest, driving through the Kenstone Quarry before leaving the forest. Once again, everyone wished we had more time out of the vehicles because the places we did stop were really wonderful and the things we learned were very helpful in coming up with possible management plans for later. None of the places we stopped were marked by any kind of signage (once again) and you'd have no idea they were out there unless you'd already been there. Students interested in fisheries will really benefit from this trip. All of these areas offer huge possibilities for recreation.



Map C.1. Millicoma Fish Hatchery Field Trip, April 3, 2019. By Koby Etwiler (AllTrails App).

3. May 14, 2019 Deans Mountain Field Trip

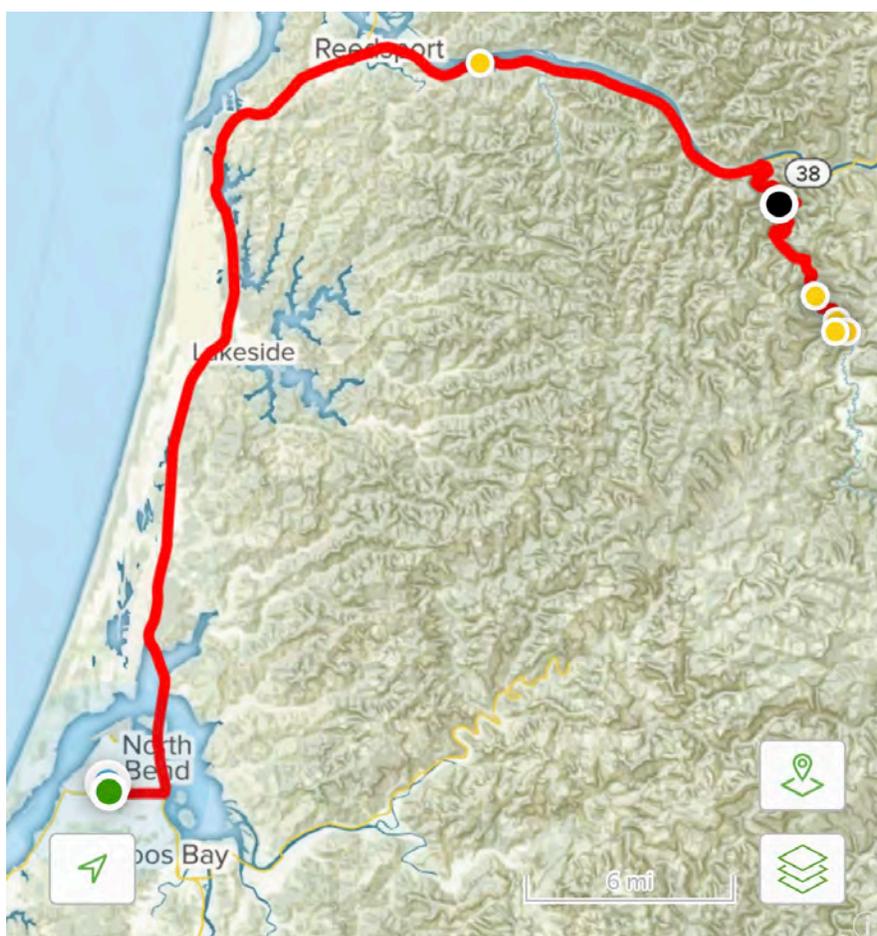
On the 2019 Deans Mountain field trip, we got to look at several different aspects of recreation. The first stops were Tugman and Tenmile Parks, where we looked at how each were managed, compared their funding, and usage. In a personal communication with Kainoa Altier, he stated, “If I would change anything about this trip for future classes, I would have liked to talk to managers at the parks or on-site representatives of the park to have them further explain cost and details of these campgrounds. That way we could have a better understanding of the differences between these campground beyond just their appearance.” Afterwards, we drove to the top of Deans Mountain, taking a couple window tour stops along the way, looking at School Land Bay, Divide Spring, the CCC Mud Flat Camp, Old-Growth Mix, Scholfield Ridge Road, and Camp Walker. Once we reached the peak, accessible by key, we were able to get out and almost enjoy the view (if it weren’t for the fog). There we talked about the history and significance of the location. Everyone enjoyed spending time on the peak and being out of the vans. This trip was very beneficial for students who are looking into camps and the economic side of recreation management.



Map C.2. Deans Mountain Field Trip, May 14, 2019. By Koby Etwiler (AllTrails App).

4. May 21, 2019 Loon Lake Field Trip

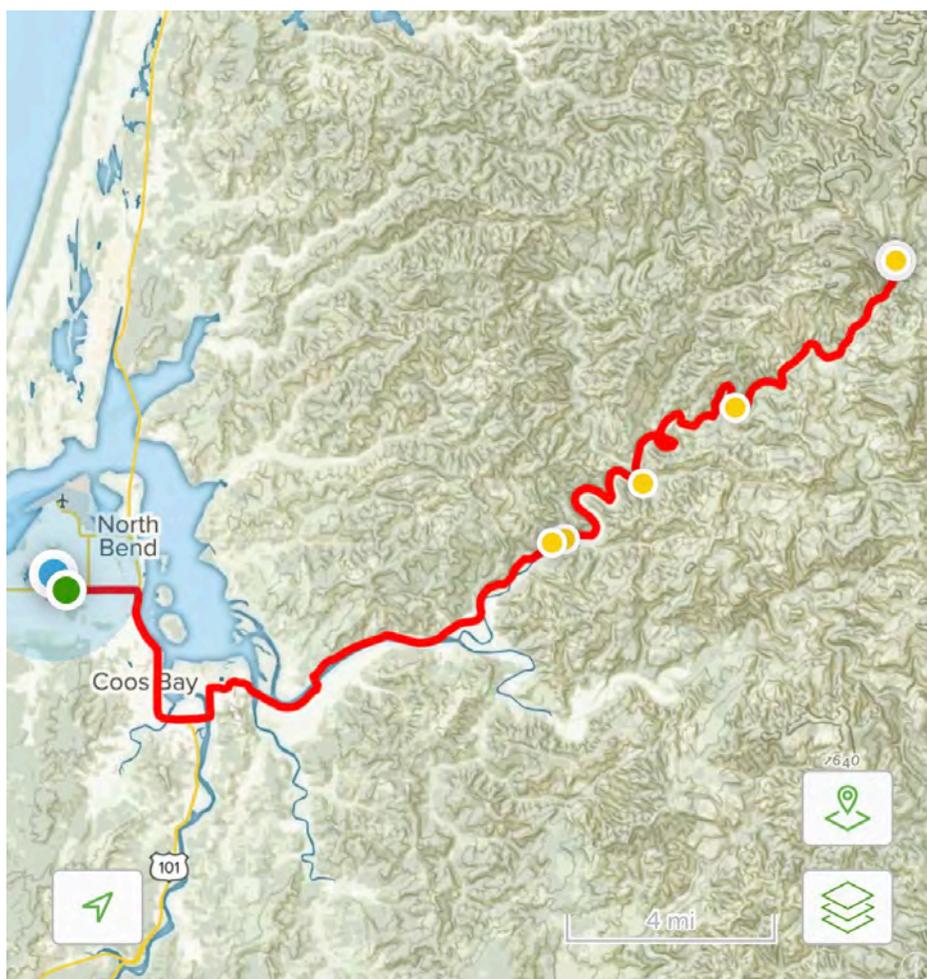
On the Loon Lake Field Trip, we started by looking at the Elk Viewing Area, discussing it's economics and the potential for similar sites around the Elliott. Kelsey Morrison stated, "Having an opportunity to see what other types of informative and interpretive signs located at the Elk View point was a good inspiration as to what could be done at the Elliott Forest." We were unable to stop at the Rhododendron Garden due to construction, but what we saw from the road looked beautiful. Next we drove through several campgrounds around Loon Lake, comparing them with private campgrounds in the area. After that, we pulled off at Huckleberry Point, and several of us took a small hike through thick brush to determine if it would be a good area for development. We concluded that due to the landscape, the most that could be put in there is a small trail, if that. Lastly, we stopped at the Indian Point Trail. A few of us once again traveled down the trail, coming out at a river, a site which could be great as a potential campground. This trip was great for students to look at different camp sites/recreation areas and critically think about their application into other parts of the Elliott.



Map C.3. Loon Lake Field Trip, May 21, 2019. By Koby Etwiler (AllTrails App).

5. May 28, 2019 Golden and Silver Falls Field Trip

The Golden and Silver Falls field trip is the most fun field trip of the year. We started by driving by Rook-Higgins County Park and boat launch, talking about the history and how the area is used. Next we pulled into the parking lot of the Allegany School and discussed the possibility of using it as a base of operations for activities in the Elliott. We were also able to talk to Sam Schwarz about his work in the Elliott and upcoming events regarding the forest's future. After that, we walked through the Nesika County Park and admired the scenery and setup before moving to our final location: Golden and Silver Falls. For many of us, this location was the highlight of our trips. We spent some time by the base of Silver Falls, and then hiked to the top of Golden Falls and enjoyed the view. We finished the day with some donuts on the way home. This field trip is great for any student who cares about nature. Golden and Silver falls is a great example of a location that needs to be kept in pristine condition, but signage or facilities at the base could really benefit the area and possibly be a great source of revenue for the Elliott.



Map C.4. Golden and Silver Falls Field Trip, May 28, 2019. By Koby Etwiler (AllTrails App).