



# KITSAP COUNTY PARKS ADVISORY BOARD MEETING

**DATE:** Wednesday, June 15, 2022

**TIME:** 6:00 PM - 8:00 PM

**LOCATION:** This meeting will be conducted via **Zoom**.

Zoom link will be posted on the [home page](#) of Kitsap County Parks website on the day of the meeting. The link is the bottom right-hand side under the heading: **Upcoming Parks Advisory Board Meeting**.

Pre-Meeting: Virtual meeting format, information, and instructions

- I. Welcome & Introductions
- II. Adoption of the May 18, 2022 meeting minutes
- III. Public Comment (3-minute limit/person)
- IV. Special Presentations/Reports
  - a. None
- V. Parks Report
  - a. Wicks Lake Forest Stewardship Plan *Arno Bergstrom*
  - b. Director's Report *Alex Wisniewski*
- VI. Sub Committee Appointments *Board*
- VII. Sub Committee Reports *Board*

Sub Committee	Type	Focus Area	PAB Members	Parks Staff (may vary by topic)
Finance & Budget	Standing (per by laws)	<ul style="list-style-type: none"> <li>• Operating Budget</li> <li>• Funding Opportunities</li> </ul>	Linda Berry-Maraist Grady Martin	Parks Director
Capital Projects & Parks	Standing (per by laws)	<ul style="list-style-type: none"> <li>• Capital Projects Program</li> <li>• M&amp;O Program</li> </ul>	Larry Walker Nancy Whitaker Grady Martin	Capital Projects Planner M&O Supervisor
Community Outreach & Visitor Services	Ad Hoc	<ul style="list-style-type: none"> <li>• Events and Rentals Program</li> <li>• Marketing</li> <li>• Volunteer Program</li> <li>• Youth Engagement</li> </ul>	Nancy Whitaker Amy Lawrence Amy Smalley	Marketing & Events Supervisor Natural Resources Supervisor
Planning & Property	Ad Hoc	<ul style="list-style-type: none"> <li>• Planning Program</li> <li>• Natural Resources Program</li> <li>• Land Acquisition &amp; Divestiture</li> <li>• Park Code</li> </ul>	Larry Walker Linda Berry-Maraist Amy Lawrence Amy Smalley Joanne Clark	Parks Planner Natural Resources Supervisor

- VIII. District Representative Reports:
  - a. Old Business
  - b. New Business
- IX. Adjournment

# KITSAP COUNTY PARKS ADVISORY BOARD

## May 18, 2022

### MEETING MINUTES

Remarks for the beginning of the remote Advisory Board Meeting were read.

The meeting was called to order at 6:03 PM by the Parks Advisory Board Chair, Joanne Clark.

Introductions were conducted around the room.

#### APPROVAL OF MINUTES

**ACTION:** *Grady Martin moved for the approval of April 20, 2022, meeting minutes. Linda Berry-Marist seconded the motion. MOTION CARRIED.*

#### PUBLIC COMMENT

- Hank Anderson- Inquired about the operations and management of the rental properties owned by Kitsap County Parks Department.
- Beverly Parsons- Raised concerns over the master plan recommendations for development, the environmental impacts, the plans for the STO trail, the plans focus on the mountain biking community, and concerns over the tribe's involvement in the master plan development.
- Carol Price – Raised concerns over the master plan recommendations for development, the environmental impacts, the plans for the STO trail, the plans focus on the mountain biking community, and concerns over the tribe's involvement in the master plan development.
- Joe Lubischer- Raised concerns over Pulte Homes not adequately resolving the issue of removing timber from North Kitsap Heritage Park.
- Steve R – Raised awareness over the positive impacts the master plan will bring to Port Gamble Forest Heritage Park.

#### SPECIAL PRESENTATION

None

#### PARKS REPORT

- a. Director's Report  
*Parks Director, Alex Wisniewski, presented the May 2022 Directors Report.*
- b. Restoration Projects  
*Parks Director, Alex Wisniewski, updated the board on the restoration projects taking place at the Estuary at Point No Point Park and Finn Creek at Norwegian Point Park*
- c. Hybrid Meeting Discussion  
*After a brief discussion, the board decided to continue hosting its monthly meetings remotely but going to a hybrid meeting will remain an option.*

#### SUB COMMITTEE APPOINTMENTS

Parks Advisory Board members volunteered for the subcommittees as follows:

Proposed Structure	Type	Focus Area	PAB Members
Finance & Budget	Standing (per by-laws)	<ul style="list-style-type: none"> <li>• Operating Budget</li> <li>• Funding Opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Linda Berry-Marist</li> <li>• Grady Martin</li> </ul>
Capital Projects & Parks	Standing (per by-laws)	<ul style="list-style-type: none"> <li>• Capital Projects Program</li> <li>• M&amp;O Program</li> </ul>	<ul style="list-style-type: none"> <li>• Larry Walker</li> <li>• Nancy Whitaker</li> <li>• Grady Martin</li> </ul>

Community Outreach & Visitor Services	Ad Hoc	<ul style="list-style-type: none"> <li>• Events and Rentals Program</li> <li>• Marketing</li> <li>• Volunteer Program</li> <li>• Youth Engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Nancy Whitaker</li> <li>• Amy Lawrence</li> <li>• Amy Smalley</li> </ul>
Planning & Property	Ad Hoc	<ul style="list-style-type: none"> <li>• Planning Program</li> <li>• Natural Resources Program</li> <li>• Land Acquisition/Divestiture</li> <li>• Park Code</li> </ul>	<ul style="list-style-type: none"> <li>• Larry Walker</li> <li>• Linda Berry-Marist</li> <li>• Amy Lawrence</li> <li>• Amy Smalley</li> <li>• Joanne Clark</li> </ul>

## SUB COMMITTEE REPORTS

This topic was tabled until the June meeting.

## DISTRICT REPRESENTATIVE REPORTS

- Grady Martin: Provided an update on the field visit conducted for the STO trail route planning.
- Linda Berry-Marist: Provided an update on the various projects and work parties occurring at Port Gamble Forest Heritage Park, including the upcoming West Fest event, the fundraising efforts from the Gamble Graveler, and the efforts to update trail signs.
- Nancy Whitaker: Provided an update on the recent event the Newbery Park Stewards participated in with Wild Society.
- Larry Walker: Provided an update on the work the stewards are performing at Banner Forest Heritage Park, including removing invasive plants and improvements to the trail system.

## OLD BUSINESS

Anderson Point Park – Parks Department staff are coordinating with Public Works and DCD to track down permit information and coordinate the completion of the parking lot at Anderson Point Park.

## NEW BUSINESS

No new business was discussed.

## ADJOURNMENT

***ACTION:** Larry Walker moved to adjourn the meeting. Linda Berry-Marist seconded the motion. The meeting was adjourned at 8:06 PM.*

## PARKS ADVISORY BOARD ATTENDANCE

PAB MEMBERS	STAFF	PUBLIC
Joanne Clark, Chair	Alex Wisniewski	Lynn Schorn
Linda Berry-Maraist	Brian Hauschel	Carol Price
Larry Walker	Alex Hardy	Joe Lubischer
Amy Smalley	Arno Bergstrom	Kim Greenwood
Grady Martin		Hank and Susan Anderson
Nancy Whitaker		Beverly Parsons
Amy Lawrence		Sue Dearman



**Parks Department**  
1195 NW Fairgrounds Road, Bremerton, WA 98311  
Mailing address: 614 Division, MS-1, Port Orchard, WA 98366  
Phone (360) 337-5350 • Fax (360) 337-5385  
www.kitsapgov.com/parks

Alex Wisniewski, Director

# Director's Report

**Date:** 6/15/2022  
**To:** Parks Advisory Board  
**From:** Alex Wisniewski, Parks Director

## Administration Program

### Staffing

Current status of hiring vacant positions:

	<b>Position</b>	<b>Status</b>
1.	Office Support Specialist	Hired. Start Date: 7-19-2021
2.	Events Coordinator	Hired. Start Date: 8-16-2021
3.	Volunteer Coordinator	Hired. Start Date: 9-13-2021
4.	Parks M&O Supervisor	Hired. Start Date: 9-13-2021
5.	Fiscal Support Tech	Hired. Start Date: 9-20-2021
6.	Events Specialist	Hired. Start Date: 1-3-2022
7.	Office Support Specialist	Hired. Start Date: 1-24-2022
8.	Public Relations & Communications Coordinator	Hired. Start Date: 2-22-2022
9.	M&O Crew Supervisor	Hired. Start Date: 2-28-2022
10.	M&O Crew Supervisor	Hired. Start Date: 2-28-2022
11.	Parks Planner	Hired. Start Date: 7-18-2022
12.	Capital Projects	Need to repost
13.	Volunteer Coordinator	Hired. Start Date: 4-25-2022
14.	M&O Lead	Hired. Start Date: 5-9-2022
15.	M&O Lead	Hired. Start Date: 5-9-2022
16.	M&O Lead	Hired. Start Date: 5-9-2022
17.	M&O Lead	Hired. Start Date: 5-9-2022
18.	Office Support Specialist	Hired. Start Date: 7-5-2022
19.	M&O Worker (Parks)	Hiring in-process
20.	M&O Worker (Parks)	Hiring in-process
21.	M&O Worker (Parks)	Hiring in-process
22.	M&O Worker (Parks)	Need to repost
23.	M&O Worker (Parks)	Need to repost
24.	M&O Worker (Events)	Hired. Start Date: 6-13-2022
25.	M&O Worker (Events)	Hiring in-process
27.	Office Support Assistant	Interviews held on 6-13 and 6-14-2022

### Grants

#### *Illahee Forest Preserve Heritage Park*

The Illahee Forest Preserve non-profit is submitting for a grant through the Recreation and Conservation Office for land acquisition funds in hopes of adding property to the park. The acquisition parcels are targeted because they would help further protect and preserve the Illahee Creek watershed or are desirable wildlife corridors. While the specific parcel selection has evolved over the years, the preservation concept has been backbone of the park since the County passed Resolution 38-2003 creating the Illahee Preserve Stewardship Plan.

## Capital Projects Program

### Port Gamble Forest Heritage Park – ride park and parking lots

Phase 1 of ride park construction is about 90% complete but won't finish until it can be tied-into the Phase 2 trails; phase 2 trails construction is currently underway. In conjunction with this weekend's West Fest event at Port Gamble, a portion of the ride park trails are scheduled to open to the public at the event. These trails are fully complete, will be signed, and have been reviewed by Risk Management.

The SDAP permit for the Stottlemeyer parking lot and trailhead remains in DCD's review process.

The SDAP permit for the ride park parking lot and trailhead have been submitted to DCD.

## Events and Facilities Rental Program

### Events and Rentals

Upon an internal review of staffing capacity following recent hirings and promotions of employees into different positions, the Parks department has adjusted services for the near future – through July 30 – at which time operations will be reassessed. Parks M&O Worker position vacancies have been posted and once filled, we should be positioned to increase service levels. In the meantime, temporary service changes include:

- **Picnic Shelters.** *Not reservable*; available on a first-come, first-serve basis only.
- **Athletic Fields.** Prepare fields before first rental only; *"turnovers" in between multiple rentals not available.*
- **Community Buildings.** Accepting *only 2-3 rentals per week.* This is a continuation of current and on-going reduced service.

### Fall Athletic Scheduling

Requests for field usage for August – December 2022 is underway. The following represents current and upcoming milestones:

- May 6, 2022: Parks Department started accepting requests for priority consideration for fall field usage
- June 3, 2022: Cutoff date for submitting requests for priority field scheduling
- July 1, 2022: The field schedule for August – December 2022 will be finalized and published by the Parks Department.
- July 1 – December 21, 2022: Additional field requests will be processed on a first-come, first-served basis

### BoCC-Sponsored Events

<b>Event</b>	<b>Status</b>
<i>Martin Luther King Jr. Day</i>	Placeholder on the calendar for 2023.
<i>Military Appreciation Day</i>	Placeholder on the calendar for 2023
<i>FARM Days</i>	CANCELED – 2022, event request submitted for 2023
<i>United Way Day of Caring</i>	This event has indicated they will not use the Fairgrounds facilities in 2022 as they have in past years.
<i>Veterans Day Ceremony</i>	Placeholder on the calendar for November 2022; event application not yet submitted.
<i>Toys for Tots</i>	Placeholder on the calendar for December 2022; event application not yet submitted.



## **Parks Department**

1195 NW Fairgrounds Road, Bremerton, WA 98311  
Mailing address: 614 Division, MS-1, Port Orchard, WA 98366  
Phone (360) 337-5350 • Fax (360) 337-5385  
[www.kitsapgov.com/parks](http://www.kitsapgov.com/parks)

Alex Wisniewski, Director

## **Maintenance & Operations Program**

### **Anderson Point Park**

The contract for the gate replacement is complete, Parks is working with the contractor on the scheduling and installation of the gate system.

### **Buck Lake**

All County Septic was hired to map out the septic tanks and drain field locations for the Hansville Community Center. During the mapping/inspections, necessary repairs were discovered that may require a complete re-build of the system. All County Septic is now working with the Greater Hansville Community Center (GHCC) board to facilitate the repairs since this system services the community center building only. GHCC will hire an engineer to assist with designing the new system.

### **Pavilion**

Staff are currently working with a local electrician and Puget Sound Energy (PSE) to craft a scope of work and cost estimate to upgrade existing parking lot and exterior building lighting. Staff are also securing bids to add GFI breakers to the indoor electrical distribution system.

## **Natural Resources Program**

### **Forest Stewardship Program**

#### *Square Lake Park*

- Ecologically based selective thinning has begun at Square Lake Park. Completion is anticipated in August

#### *Wicks Lake*

- Community review of the Wicks Lake Park Forest Stewardship Plan is underway. A community meeting at the park on June 7, 2022, to discuss the plan and forest thinning project. The plan will be shared with the Parks Advisory Board in June and brought before the Commissioners in July.

### **Volunteer Program**

#### ***Recent Activity***

##### *Port Gamble Forest Heritage Park*

- Trail construction project underway.
- Continuation of invasive vegetation removal dubbed the "Scotch Broom Brigade."

##### *Hansville Greenway*

- Invasive species removal and trail widening of the connector trail to the new neighboring parcel recently acquired by Great Peninsula Conservancy.

##### *North Kitsap Heritage Park*

- Trail development along the powerline trail corridor.
- Removal of old abandoned Volvo from deep in the woods.

##### *Newberry Hill Heritage Park*

- Construction of a replacement trail puncheon began with support from students from Klahowya Secondary School.
- Staff prepared two park benches for dedication to honor a former Rotary Club member and Central Kitsap High School Principal.
- Installed split rail fencing to discourage use of an unauthorized access point.

#### *Banner Forest Heritage Park*

- Conducted trail brushing along the NE side of the park.
- Washington Trails Alliance completed a trail re-route of trail that was mistakenly built on private property before the park was owned by Kitsap County.

#### *South Kitsap Regional Park*

- Installation of a new footbridge across a creek and construction of turnpikes with help from Youth Build is in progress.

#### *Chico Salmon Park*

- Invasive weed removal and trail work performed.

#### *Elrands Point Preserve*

- Removal of invasive plants to allow tree saplings to grow and trail brushing was performed.

#### *Howe Farm*

- Students from South Kitsap High School's Club Interact program continue to work installing an ADA trail and removed invasive weeds in the park. The project was assisted by Port Orchard Rotary Club.
- New split-rail fencing in the parking lot was installed.

#### *Keyport Saltwater Park*

- New gravel was added to the parking lot area.

#### *Anderson Landing Preserve*

- Volunteers performed trail brushing work and added gravel to improve trail surfaces.

#### *Guillemot Cove*

- Trail brushing and trail drainage work performed

#### *A Quiet Place Park*

- Trail maintenance and brushing work

## **Planning Program**

### **Port Gamble Forest Heritage Park - framework**

Comments from the public about the project have slowed in recent weeks but continue to come in. Incoming responses to the draft plan are being compiled and considered for edits to the document. A response matrix, FAQ document, and proposed changes to the plan is being drafted and will posted to the public and presented to the Commissioners and the Parks Advisory Board in July. The remaining timeline milestones presented last month have slipped a bit further due to workload capacity issues and a desire to slow down the approval process to allow for additional opportunity for the public to review the draft framework. The updated tentative timeline includes:

- July (early): framework to BoCC at a Work Study Session
  - Public Hearing process begins
- July (mid): framework to BoCC at a Work Study Session
- July (late): framework to BoCC at a Business Meeting

### **Sound To Olympics Trail**

Parks staff have participated in two field visits to walk various potential routes for the Sound to Olympics trail through North Kitsap Heritage Park and the "divide property" owned by Great Peninsula Conservancy. Both parcels have challenging terrain that is



**Parks Department**

1195 NW Fairgrounds Road, Bremerton, WA 98311  
Mailing address: 614 Division, MS-1, Port Orchard, WA 98366  
Phone (360) 337-5350 • Fax (360) 337-5385  
[www.kitsapgov.com/parks](http://www.kitsapgov.com/parks)

---

Alex Wisniewski, Director

being evaluated for the trail. The first public meeting for the route feasibility study is on July 21, 2022.





# Forest Stewardship Plan for the Ecological Restoration of Wicks Lake Park

**June 2022**

Prepared by:

Arno Bergstrom, Kitsap County Community Forester

June 13, 2022

---

## ACKNOWLEDGEMENTS

---

### **Kitsap County Staff**

Jim Dunwiddie, Director of Parks

Arno Bergstrom, Community Forester

### **Contributing Community Partners, Park Stewards and Stakeholders**

Roger Gay

Rachel and Ken Brown

Kim and Tom Dodd

Jim Avery

Joel Bolin

Roland Null

Larry Walker

Vivienne Clemen – GIS mapping

### **Forest Stewardship Committee (a sub-committee of the Parks Advisory Board)**

Paul Larson

Frank Stricklin

### **Other Partners & Stakeholders**

Washington DNR Forest Practices, Forester – Aileen Nichols

Washington DNR Forest Practices, Forester – Richard Woods

Washington Department of Fish & Wildlife, Biologist – Brittany Gordon

Washington Department of Ecology, Water Quality – Bob Penhale

American Forest Management, Forester – Gus Gerrits

Suquamish Tribe – Debbie Kay

---

## FOREST RESTORATION - VISION FOR WICKS LAKE PARK

---

**VISION:** Wicks Lake Park is an ecologically complex, diverse, and healthy forest that provides optimum wildlife habitat for a wide range of animal species.

Wicks Lake Park is a 170-acre park composed of simple Douglas fir plantations between 44 and 77 years old. The approach will be to use ecological forest management, a restoration process that considers the forest ecosystem as a complex system functioning in its entirety. Because this park is seeing increased use by the surrounding community, restoration must also consider the social values of the community. Forest ecosystem restoration will rely heavily on partnership with community members as well as private, tribal, local, and state government stakeholders. The ecosystem restoration approach will be to:

- **Work *with* nature:** Work with native plant species that have evolved and adapted to our temperate climate and are competitive and resistant to disease and insects.
- **Enhance fish and wildlife habitat:** Structurally diverse forests provide the best habitat for the greatest number of wildlife species. A diverse forest habitat also includes dead and dying tree for snags and large woody debris.
- **Diversify plant species:** Forests comprised of mixed native tree species improve habitat, aesthetics, and the value of both timber and non-timber assets and better support diverse wildlife populations.
- **Recognize the connection between all plants, fungi and animals:** all creatures contribute to a healthy and dynamic forest ecosystem.
- **Protect water as a vital resource:** Healthy, vibrant forest ecosystems are the best and least costly option for maintaining high water quality and for the management of surface and storm water runoff.
- **Consider that human park users are part of the system and critical to the decision making about the future of the park.**

### WICKS LAKE FOREST RESTORATION GOALS

A successfully implemented forest restoration program for the Wicks Lake Park will need to meet four basic goals, established in the 2012 Kitsap County Resolution 169 – Integrated Forest Stewardship Plan, and which are closely related and not mutually exclusive. These program goals are:

- Enhance natural forest ecosystem complexity and health
- Protect and enhance soil, forest hydrology, and fish and wildlife habitat
- Be biologically, socially and economically self-sustaining
- Provide safe, reasonable and appropriate public access to County forestlands

The long-range outcome of the forest restoration program is: Kitsap County will realize the full range of benefits and values of Wicks Lake Park in a manner consistent with the County's overarching goal of a growing community where natural resources and systems are sustained for the benefit of current and future generations. Because multiple funding sources were used for the acquisition of Wicks Lake Park, all grant requirements, including any deeds of right to land use with covenants that must be followed. Every effort should be made to minimize the potential for human-wildlife conflicts. This can be done through appropriate siting of trails (away from areas likely to be frequented by bear and maintenance of wildlife corridors and buffers, appropriate maintenance of trailheads, parking lots and requirements to keep dogs on-leash.

### WICKS LAKE FOREST ECOSYSTEM RESTORATION STRATEGY

The forest stands in Wicks Lake Park are the result of logging activity since the early 1900's and lack the vegetative diversity of a naturally developed forest in Western Washington. There are dense over-stocked stands with a significant

absence of vigorous understory vegetation needed for wildlife. The restoration strategy is to increase the amount of light reaching the forest floor, enhance wildlife habitat and forest health by mitigating past management practices. This will be accomplished by:

- Non-conventionally (restorative) thinning the over-stocked conifer stands.
- Planting a variety of shade tolerant tree species to improve forest habitat diversity.
- Controlling invasive species and noxious weeds.
- Monitoring and managing areas with diseased and danger trees.
- Upgrading culverts to larger sizes to restore hydrologic connectivity.
- Abandonment of trails/roads that are not needed.

Wicks Lake Park contains a high percentage of Douglas fir trees in the young, stem exclusion development stage (40-90 years). This is a critical growth period where the trees are under extreme stress and are vulnerable to root rot, insect infestations and catastrophic fire. Restoration thinning operations will retain the largest trees, reduce stand density, and improve habitat diversity, tree health, resilience, longevity, and reduce wildfire risk.

---

### WHY USE RESTORATION THINNING?

---

Restoration thinning, also called selective thinning, is a recommended restoration practice for overstocked conifer plantations including those within riparian and wetland management zones in Western Washington<sup>1</sup>. Operationally called variable density thinning (VDT), restorative thinning is specifically recommended for young dense Douglas fir plantations.

Restoration thinning is most beneficial in Douglas fir stands that are up to 50 years of age because of anticipated high growth rates<sup>2</sup>. Unlike conventional thinning, restoration thinning can maintain or accelerate dead wood production<sup>1</sup>. This is accomplished by leaving all or most of the dead wood as part of the thinning prescription. The approach is to use VDT to create variation in the forest landscape by selecting strong individual trees, crafting tree clumps, skips and openings that closely mimic natural forest conditions<sup>2</sup>. As much as possible, hardwoods and non-Douglas fir conifer tree species will be reserved as leave trees. Older (60 to 120 years) overstocked (150+ TPA) stands can also benefit from restoration thinning. As Douglas fir and other conifer trees get larger, they need more space to thrive.

Healthy, diverse forests contain dead trees. Properly implemented, VDT will result in continued stand mortality that will continue to contribute dead wood within the forest uplands, riparian and wetland areas. Thinning prescriptions will also call for the artificial creation of snags. Snags can be potentially hazardous to park patrons in high use areas and require attention. However, downed trees and logs on the forest floor and remote snags provide important food, protective cover, and nesting sites for wildlife and are essential components of a forest ecosystem.

---

1 Spies, Thomas, Michael Pollock, Gordon Reeves and Tim Beechie. 2013. Effects of Riparian Thinning on Wood Recruitment: A scientific Synthesis. Science Review Team Wood Recruitment Subgroup, Forest Sciences Laboratory, Corvallis, OR

2 Kerr, Andy, and Derek Churchill. 2012. Ecological Appropriate Restoration Thinning in the Northwest Forest Plan Area. Conservation Northwest, Geos Institute, Klamath-Siskiyou Wildlands Center and Oregon Wild. Seattle, WA.

---

## RESOURCE CATEGORY I: FOREST HEALTH

---

- a) Existing resource condition: As indicated, historic management practices in the park have greatly diminished overall habitat and species diversity in over half of the park. In addition, laminated root rot, pine blister rust, bark beetle infestation, armillaria root rot, and heart rot can be found in scattered areas of the park. Invasive plant species, notably Scotch broom, holly and Himalayan blackberry infect some areas of the park.
- b) Resources protection measures: Plot analyses identified areas that need prophylactic care and/or diseased tree removal. Fire risk will also be addressed, see Appendix 5: Fire Risk Reduction.
- c) Stewardship practice recommendations: Measurement and identification of root rot pockets is ongoing. With the help of the Kitsap County Noxious Weed Control Program, staff and stewards will manage invasive species. Refer to Appendix 2: Forest Stand Conditions/Prescriptions for detailed information about the health of individual mapping units (stands) in the park. Restoration thinning will be employed to diversify most of the park's nearly pure 40 to 75 year-old Douglas fir stands.

---

## RESOURCE CATEGORY II: FOREST TREE INVENTORY

---

- a) Existing resource condition: Mapping unit inventory data was collected in 2018/19. Some minor tree species that were not noted in the inventory occur in small patches and in riparian areas.
- b) Resources protection measures: Replanting/under-planting will continue to occur in areas where it is deemed appropriate. For instance, in a root rot pocket, after diseased trees are removed, rot resistant species will be planted. After the selective thinning is completed shade tolerant trees will be planted to increase tree species diversity. If a meadow is desired, little replanting of trees would occur in that area.
- c) Stewardship practice recommendations: Restoration thinning will be required in most areas of the park due to the nature and condition of the Douglas fir plantations. The goal of the restoration thinning is to achieve more complex and diverse forest. There are currently five forest habitat conditions in the park setting the stage for future ecological forest management.

## CURRENT ECOLOGICAL CONDITION

All four forest mapping units have been delineated within Wicks Lake Park are segmented based on age, species composition and past harvest history (Appendix 1). Walking through the forest, the changes in forest structure are sometimes subtle due to soils change or where human or natural disturbances have occurred. All of stand has been mapped, documented, inventoried and given an ecological classification/habitat as simple. All the forest ecological classification/habitats are listed in the following Table 1:

**Table 1 – Forest Ecological Classification/Habitats**

Simple Canopy	Trees of uniform age, spacing, height with a single canopy and lacking tree species diversity. Often single species plantations.
Complex or Differentiated Canopy	Trees of different height, age, species and spacing. Canopy stratification to some extent, some mature trees (70-200 years old)

Old Growth - Legacy	Defined as trees 200 years and older. Mix of shade tolerant understory trees and shrubs, decadent trees, snags, logs on the forest floor and canopy stratification
Meadow	Existing open areas, sometimes artificially maintained, as an ecotone for raptors and bats. Size often limited to 1-2 acres.
Hardwood Patch	Clumps of hardwood trees species including Red Alder, Big Leaf Maple, birch, Madrona, cascara, aspen and willow. Patches are small (1/4 to 1 acre) where conifers are removed to benefit wildlife.
Wetlands (WA Forest Practices wetland typing system) – Management Zone (WMZ)	TYPE A: An area of 1/4 <sup>th</sup> acre or more covered by open water seven consecutive days between April 1 and October 1 <sup>st</sup> TYPE B: An open area of 1/4 <sup>th</sup> acre or more that is vegetated with water tolerant plants and or shrubs. Forested Wetland: A wetland with tree crown closure of 70% or more with mature trees.
Riparian - Management Zone (RMZ)	Those areas that interface land to streams. There are multiple unnamed stream, springs and tributaries in the park.

Restoration thinning is recommended for 3 of the 4 map units in the park due to the current overstocked condition of these Douglas fir in these stands. Appendix 2 provides specific stand data, describes the current condition and provides a prescription.

---

### RESOURCE CATEGORY III: PROTECTING SOILS

---

- a) Existing resource condition: Soils vary greatly throughout the park. Refer to Appendix 3 for Soil Types for specific stand maps and information. This inventory shows that most of the park has average soil site quality.
- b) Resources protection measures: Specify the use of low ground pressure harvesting equipment to minimize site disturbance and soil compaction during restoration thinning. Monitor and maintain roads, ditches and culverts to protect against erosion. Use only existing roads; no new road construction. All the park soils are gravely sandy loam with less than 15 percent slop that will hold up well to the low-impact thinning operation.
- c) Stewardship practice recommendations: Disturbance of the forest floor and surrounding trees is inevitable during restoration thinning. But all care will be taken to minimize these occurrences by utilizing preexisting forest roads and skid trails. Harvest contractors will be required to use low impact felling and forwarding methods to minimize damage to forest soils.

Restoration thinning will be done using low ground pressure harvesting equipment to minimize site disturbance and soil compaction. Roads, ditches and culverts will be monitored and maintained to guard against erosion. Operations will use only existing roads; no new roads will be constructed; and some old roads may be removed/abandoned. See Appendix 4 – Roads and Culverts.

---

## RESOURCE CATEGORY IV: WATER QUALITY, RIPARIAN, AND WETLAND AREAS

---

The Kitsap Peninsula needs to maintain open spaces, wetlands and forest for aquifer recharge. The parks' forests and small wetlands absorb rain water, thereby reducing run off, and slowly releasing this water into a large 22-acre lake and associated wetland complex.

### Streams

- a) Existing resource condition: Wicks Lake Park has one unnamed fish bearing stream that includes the lake. See Appendix 4 for official (WA DNR FPARS Map) information. The lake has an active beaver colony and their dams have raised the level of the lake approximately 6 feet over the past 20 years.
- b) Resource protection measures: The Washington Forest Practices Act requires riparian buffers, called Riparian Management Zones (RMZs), to protect riparian functions and resources along Type F (fish-bearing), Type Np (non-fish-bearing, perennial) and Type Ns (non-fish-bearing, seasonal) streams.
- c) Stewardship practice recommendations: Follow the policy adopted by resolution by the Kitsap Board of Commissioner in June 2015: Policy for the Protection and Restoration of Riparian and Wetland Management Zones in Kitsap County Parks (Appendix 6).

### Wetlands

- a) Existing resource condition: The wetlands in Wicks Lake Park have been influenced by an active population of beaver. The forests surrounding these wetlands are dominated by Douglas fir, western red cedar and red alder. See Appendix 4 – FPARS Map of historic service roads and wetlands.
- b) Resource protection measures: The Washington Forest Practices Act requires wetland buffers, called Wetland Management Zones (WMZs), to protect wetlands greater than one-half acre with open water (Type A wetlands), and non-forested wetlands greater than one-half acre that are vegetated with water-tolerant plants (Type B wetlands). The act does not require a WMZ for forested wetlands. Additional resources protection will be provided to all wetlands in the park while encompassing the minimum requirements under Washington State Forest Protection rules.
- c) Stewardship practice recommendations: Follow the policy adopted by resolution by the Kitsap Board of Commissioner in June 2015: Policy for the Protection and Restoration of Riparian and Wetland Management Zones in Kitsap County Parks (Appendix 6).

---

## RESOURCE CATEGORY V: FISH AND WILDLIFE HABITAT

---

- a) Existing resource condition: Mapping Units 1,2 and 4 have large diameter conifers (>20 inches) considered priority habitats by the Washington State Department of Fish and Wildlife, most being located close to the lake. Map unit 4 is dominated by a less dense 74-year-old Douglas fir stands. Significant beaver activity since 1965 has raised the level of Wicks Lake 5 feet expanding the lake area into areas that were previously shallow Type A wetlands. There are also multiple type A, B and forested wetland with flagged wetland management zone (WMZ) buffers. Units 1,2 and 3 all have dense simple forest canopy that limits light penetration and is suppressing the vigor of understory vegetation and production of mast.
- b) Resources protection measures: Wicks Lake is designated as a natural shoreline with priority habitat will be left undisturbed. A 200-foot shoreline buffer will exclude all thinning operations. Restoration thinning (non-conventional) will be used exclusively outside of the upland WMZ buffers. The flagged shoreline buffer will exceed the minimum requirements in most cases due to the shape of the lake. Non-conforming culverts will be replaced or remove during road/trail abandonment; new trails will be sited outside buffers.
- c) Stewardship practice recommendations: The science behind the State's and County's protection of sensitive areas is adequate in most locations; however, we have the luxury of exceeding minimum requirements in the park. It is better to err on the side of caution when sensitive fish and wildlife habitat is at risk. Therefore, restoration thinning will be conducted using a cut-to-length (CTL) harvesting system. CTL is ecologically the best harvesting system available; yet is less efficient and produces less net revenue return compared to conventional thinning systems.



## RESTORATION THINNING FOR WILDLIFE

Selective thinning for wildlife involves creating more space between individual and groups of leave trees. The final number of leave trees per acre is based on established thinning guidelines (Table 1) for optimum wildlife habitat enhancement.

The number of leave tree per acre (range 80 to 110 TPA) will be determined in the field using the quadratic mean diameter of the leave trees to calculate the relative density (RD) to optimize the desired wildlife habitat condition. Larger trees need more space; and wide-spacing provides increased light to the forest floor stimulating understory plants and creating a more diverse habitat for wildlife. Vigorous understory vegetation produces more mast over a longer period during the growing season; thus, more food for wildlife.

RD will be used to determine the thinning density or the number of leave trees per acre. The goal will be an average RD of 35. Leave trees will be sampled and measured to determine the RD using the following guideline and methodology:

**Table 1: Thinning guidelines for Wildlife**  
**Relative Density (RD) for Wildlife**

Avg. Leave Tree DBH (inches)	Lower Limit – RD 25		Upper Limit – RD 45	
	Trees/Acre (TPA)	Avg. Tree Spacing (Feet)	Trees/Acre (TPA)	Avg. Tree Spacing (Feet)
6	312	11	561	8
7	248	13	446	8
8	203	14	365	10
9	170	16	306	10
10	145	17	261	11
11	126	18	226	12
12	110	19	198	13
13	98	21	176	14
14	88	22	158	15
15	79	23	142	15
16	72	24	129	16
17	65	25	118	17
18	60	26	108	18
19	55	28	100	18
20	51	29	92	19
21	48	30	86	20
22	44	31	80	21
23	42	32	75	21

Relative Density (RD) is a descriptive term that relates to the density of a timber stand to a fully stocked level. An ideal RD for wildlife habitat is between 25 and 45. Mathematically,  $RD = \text{Standing Basal Area (BA) in square feet per acre} \div \text{the square root of the quadratic average of DBH in inches}$ . The quadratic average is the square root of the average squared diameters. For smaller areas, a simple average DBH can work about as well as the quadratic average in calculating RD. Basal area (BA) is equal to the sum of the cross-sectional area of trees at breast height on an acre of land. It is also equal to the BA of the average diameter multiplied by the trees per acre (TPA). To convert tree DBH to BA, square the DBH and multiply by 0.0054. Thus, an average tree diameter of 10 inches would have a basal area equal to  $(10 \times 10 \times 0.0054)$  or 0.54 square feet. Excerpted from Washington State University Extension EB2000 "Silviculture for Washington Family Forest"<sup>3</sup>

<sup>3</sup> Hanley, Donald P. and David Baumgartner. *Silviculture for Washington Family Forests*. 2005. Washington State University Extension Bulletin 2000. Pullman, WA.

---

## RESOURCE CATEGORY VI: THREATENED AND ENDANGERED SPECIES

---

- a) Existing resource condition: No threatened or endangered species have been observed in the park at this time. However, there are areas of the park that may have been designated by the state as potential marbled murrelet habitat. There are older, larger legacy conifers within the lake shoreline management zone that are priority habitat.
- b) Resources protection measures: Restoring the health of the park forests may provide scarce habitat for endangered or threatened species. The shoreline management zone surrounding the lake will provide large diameter legacy trees; eventually growing branches large enough to support Marble Murrelet nesting.
- c) Stewardship practice recommendations: As per county policy, restoration thinning is recommended along with the management of diseased trees, under-planting with native tree species and removal of invasive species to improve forest health and to create habitat for endangered or threatened species. The RMAPS will be used to maintain forest roads and replace and repair culverts and provide further protection to critical habitat in WMZs. Some existing forest spur roads in the park may be abandoned with culverts removed to restore natural water flows.

---

## RESOURCE CATEGORY VII: HISTORIC AND CULTURAL RESOURCES

---

- a) Existing resource condition: The first humans to enjoy the beauty and natural resources of the Wicks Lake Park were Native Americans, who arrived sometime between 10,000 and 15,000 years ago. While no evidence of Native American habitation has been found in the park, but it is likely that local tribes used the park for hunting and gathering. Hunters, trappers, and local outdoors enthusiasts have taken advantage of the service roads to access this former privately managed property that is now a public park.
- b) Resources protection measures: No evidence of sensitive historical or cultural use has been found in the park. Local Tribes have expressed interest in the management and harvesting of traditional plants and cedar bark.
- c) Stewardship practice recommendations: Metal debris has been found and disturbed land harkening back to the early days of logging in what is now a park. If the debris is innocuous, it is usually left in place as a reminder to visitors of the working forest that once echoed to the sounds of misery whips and double-bit axes. Other debris including garbage and abandoned vehicles, tires and parts that are uncovered will be removed.

---

## RESOURCE CATEGORY VIII: AESTHETICS AND RECREATION

---

- a) Existing resource condition: Besides being a sanctuary for wildlife, a valuable aquifer regenerator, and a protected place to grow late seral stage forests, Wicks Lake provides various opportunities for citizens to enjoy their park. Fishing, mushroom and berry picking, hiking and swimming in the lake are historic and current recreational uses.

- b) Resources protection measures: Informational signs exist in the parking lot that cover park code and policies. Forest roads will be maintained or abandoned according to state standards including culvert replacement or removal for abandoned sections. There are less than 1 mile of forest roads, so maintaining the integrity of the culverts, water bars and ditches is critical for good surface water management. Existing trails are subject to the same standard of public resource protection. Any new trails in the park will be built and maintained to trail standards per the Kitsap County Parks Department.
- c) Stewardship practice recommendations: Continue to develop public access and parking at entry points to the park. Service roads will be maintained for use during forest restoration thinning projects, and for fire safety and emergency response. Efforts to control invasive and noxious weeds along park roads/trails is a priority and will continue. The Parks Department will work with the Kitsap County Noxious Weed Control Program to create an invasive species management plan.

---

## **RESOURCE CATEGORY IX: SPECIAL FOREST PRODUCTS**

---

- a) Existing resource condition: Brush harvesting of salal and evergreen huckleberry provide a source of revenue for Kitsap County Parks, specifically park specific volunteer projects. Kitsap County maintains a contract with a brush harvesting company, which is up for bid every three years. Following County Policy, citizens can also harvest mushrooms in the park for personal use.
- b) Resources protection measures: Activities of illegal, non-permitted brush pickers have occasionally caused problems in the park. Litter and debris from pickers will to be managed through the enforcement of guidelines and rules by lease holder and the Kitsap County Community Forester.
- c) Stewardship practice recommendations: One of the best safeguards against illegal brush picking is to have an active contract with a legitimate brush harvesting company. After all, legitimate pickers only make money if the resource their company has paid for is not abused, which often happens in the case of illegal picking. Contractor activities will be monitored for impact on the park environment.

---

## **STEWARDSHIP TIMELINE**

---

The goal is to conduct and monitor forest restoration practices over a twenty-year period. The first phase of this ecological silviculture treatment will over half of the park and wildlife will benefit significantly from the habitat restoration. Under planting shade tolerant native conifers will be done in areas that have been restoratively thinned to diversify the forest.

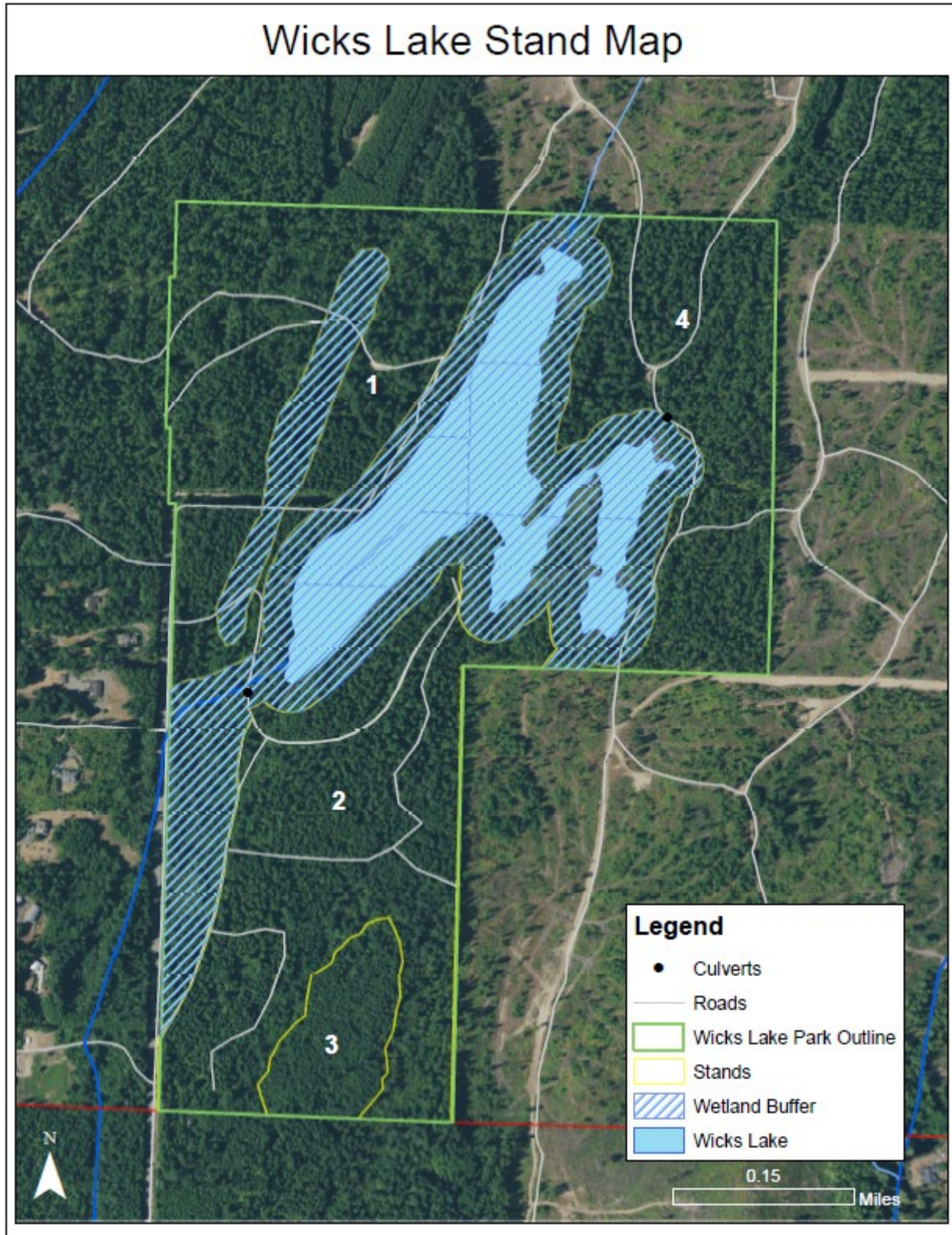
## **RESTORATION THINNING OPERATIONS**

Kitsap County and its consultant, American Forest Management, work closely together to manage all aspects of the restoration thinning operations including estimating yield projections, selecting subcontractors and marketing the logs. The harvest contractors that work in the park will be selected based on several criteria including their ability to extract the logs with the least amount of disturbance to forest and existing forest road system. Contractors will exclusively use low-impact harvest machinery which will tread lightly on the forest floor. Logs will be harvested using the cut-to-length method which leaves tree slash evenly spread on the forest floor to decay. The slash also serves as a “carpet” for the machinery to drive on thus reducing soil disturbance and compaction.

All sensitive areas such as park trails, riparian areas, and wetlands will be marked with boundary tape. Blue paint will be used mark the trees for harvest. Parks staff and stewards will mark 100% of the take trees with the goal of leaving the best and strongest trees which will improve the overall health and habitat of the forest.

To enhance and preserve habitat the contractor will be required to leave snags, avoid disturbing stumps, and large woody debris that exist in the Park. The harvest contractor will also be required to create five snags per acre by topping trees at the maximum height their equipment will reach. Ideal snags will be at least 16" in diameter and a minimum of 20 feet tall.

# APPENDIX 1 - MAPPING UNIT



## APPENDIX 2: CURRENT FOREST - CONDITIONS/PRESCRIPTIONS

Map Unit #	Species	Age	Net Acres	Trees/Acre
1	Douglas Fir	77	33	178

Basal Area/Acre In Square Feet	Site Index	Volume MBF Per Acre	Relative Density (RD)	(QMD) Diameter Douglas fir
185	111	23	50	13.6

Forest Ecological Classification - Simple Canopy

This stand is an early Douglas fir plantation with an average tree DBH approaching 14 inches. It still is in a stem exclusion stage of forest development and should have been thinned 20 years ago. The stand doesn't provide optimum habitat for wildlife or tree health. The relative density (RD) exceeds optimum level for a healthy stand condition.

Restoration Prescription

With a RD of 50, implement restoration thinning to release the biggest and best trees and bring the RD down to between 30 and 35.

Map Unit #	Species	Age	Net Acres	Trees/Acre
2	Douglas fir	77	29	241

Basal Area/Acre In Square Feet	Site Index	Volume MBF Per Acre	Relative Density (RD)	(QMD) Diameter Douglas fir
136	111	23	42	10.4

Forest Ecological Classification - Simple Canopy

This stand is a dense Douglas fir stand with an average DBH of just over 10 inches. It is in the stem exclusion stage of forest development. Ideal relative density would be between 30 and 35. This stand doesn't provide the best habitat for wildlife or tree health.

Restoration Prescription

With a RD of 42, implement restoration thinning to release the biggest and best trees and bring the RD down to between 30 and 35.

Map Unit #	Species	Age	Net Acres	Trees/Acre
3	Douglas fir	44	7	279

Basal Area/Acre In Square Feet	Site Index	Volume MBF Per Acre	Relative Density (RD)	(QMD) Diameter Douglas fir
131	111/105	21	43	9.3

Forest Ecological Classification - Simple Canopy

This stand is a densely stocked Douglas fir stand with QMD of 9.3 inches with a single/simple canopy.

Restoration Prescription

Implement restoration thinning to release the biggest and best trees and bring the RD down to 30

<b>Map Unit #</b>	<b>Species</b>	<b>Age</b>	<b>Net Acres</b>	<b>Trees/Acre</b>
4	Douglas Fir	77	25	148
<b>Basal Area/Acre In Square Feet</b>	<b>Site Index</b>	<b>Volume MBF Per Acre</b>	<b>Relative Density (RD)</b>	<b>(QMD) Diameter Douglas fir</b>
101	111	23	33	9.4

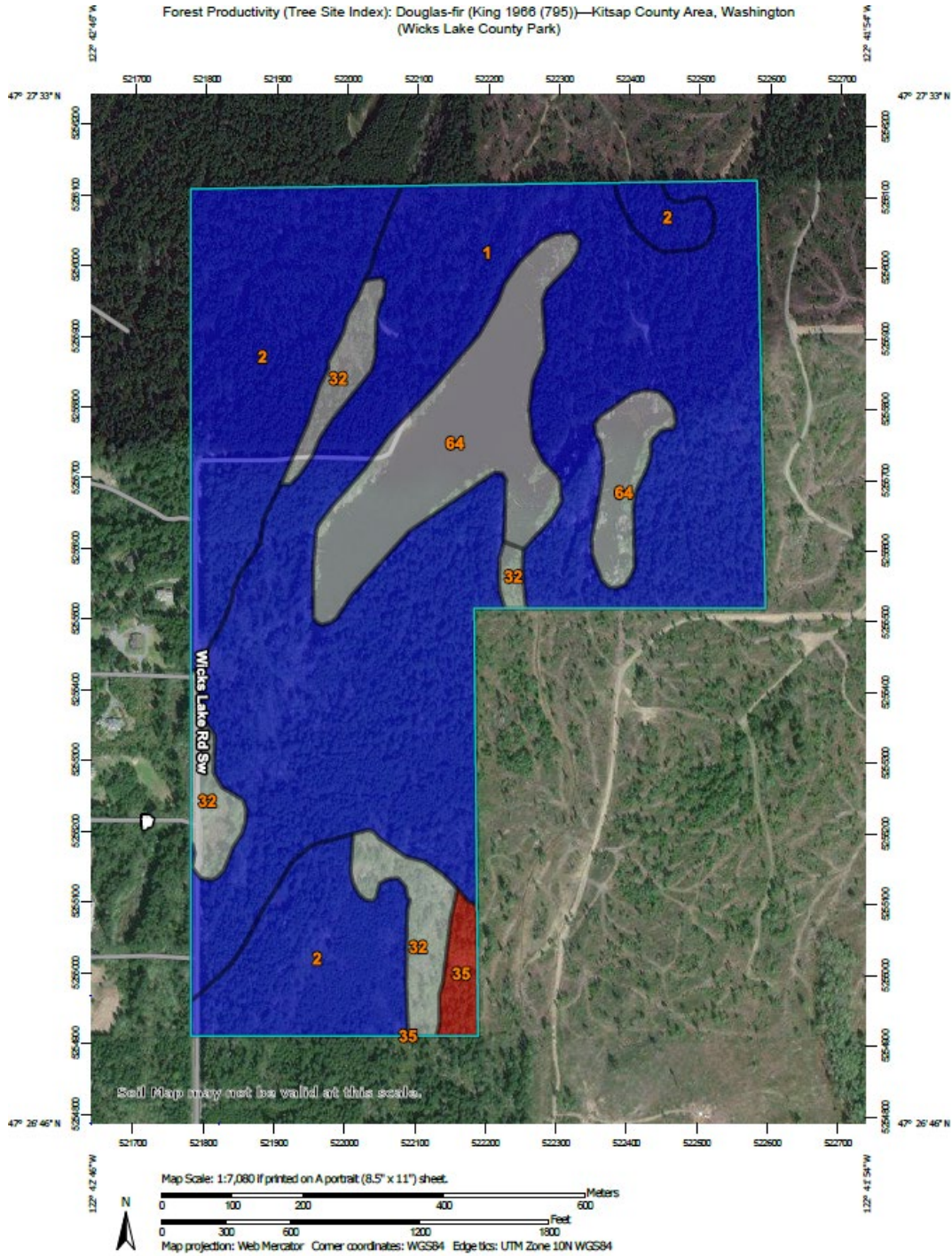
Forest Ecological Classification - Simple Canopy

This Douglas fir stand has an average QMD of just over 9 inches. It is more open and mixed with lodgepole pine and red alder. The relative density is well within the ideal range that supports wildlife. The unit contains a diverse understory of woody shrubs and herbaceous plants.

Restoration Prescription

With a RD of 33, no restoration thinning is necessary.

# APPENDIX 3 - SOILS





**Table—Forest Productivity (Tree Site Index): Douglas-fir (King 1966 (795)) (Wicks Lake Park)**

Map unit symbol	Map unit name	Rating (feet)	Acres In AOI	Percent of AOI
1	Aldenwood gravelly sandy loam, 0 to 8 percent slopes	111	101.9	50.7%
2	Aldenwood gravelly sandy loam, 8 to 15 percent slopes	111	48.6	24.1%
32	McKenna gravelly loam		12.1	6.0%
35	Nelton gravelly loamy sand, 3 to 15 percent slopes	105	16.1	8.0%
64	Water		22.5	11.2%
<b>Totals for Area of Interest</b>			<b>201.2</b>	<b>100.0%</b>

## APPENDIX 4: FOREST ROADS, RMAP'S

### Forest Roads

Owners of forestland are responsible for properly constructing and maintaining forest roads to protect fish habitat and water quality. Kitsap County has inherited the forest roads in the Wicks Lake Park that were constructed by McCormick Timber Company and Alpine Evergreen for commercial timber and Christmas tree operations. To keep these forest roads, most which are also used as trails, we must comply with state law. The Forest and Fish law is part of the Forest Practices Regulations of Washington State. The intent of the law is the reduction of silt pollution and runoff into park wetlands. Forest road prisms are hard on wetlands when forgotten culverts become plugged creating wash out forest roadbeds, and deposit tons of silt.

The goal is to keep most of the existing forest roads in the park for natural resource management and use as trails: providing access for people with disabilities, running trails, and access routes for ingress/egress during emergencies. To do this, we must comply with the law by having approved RMAPs check list in accordance with the small landowner rules. The unit map show locations of existing forest roads.

### FOREST ROAD MAINTENANCE PLAN (RMAP)

There are approximately 2 miles of forest roads within the project area that will need to be maintained or formally abandoned. Public use of motorized vehicles is not allowed in the park. The only motorized traffic on the forest roads will be authorized maintenance vehicles (tractors, graders etc.), contractor vehicles (brush pickers and harvest contractors for example) and emergency vehicles. Where possible, runoff will be quickly returned to the forest floor as sheet flow by emphasizing out-sloping.

The following activities are necessary under DNR RMAPs rules.

1. An inventory of all park culverts will be maintained. This inventory has been completed.
2. GPS coordinates will be noted for each culvert. This has been completed
3. Culvert location monuments/markers will be placed at each culvert crossing be tall enough to be visible from the forest road prism and be inscribed with a unique ID #.
4. Forest road prism culvert inspection will occur each August/September to prepare for winter rains.
5. Ditches along all maintained forest roads shall be freed from obstructions that impede water flow.
6. Moss, duff, and grasses in ditches should remain undisturbed: for added water energy distribution, water absorption, and head cut reduction.
7. Forest roads shall be sloped so that water is directed to the forest floor. See WAC 222-24
8. Where beaver activity is present, frequent checks must be made to prevent washouts.
9. Where possible, roads in beaver-frequented areas will be abandoned, removed, and/or relocated.
10. As forest roads are needed for scheduled forest restoration thinning projects, they will be prepared to withstand use by trucks or other equipment.
11. Forest roads that are scheduled to be abandoned will follow FPA rules.

### Culverts to be replaced

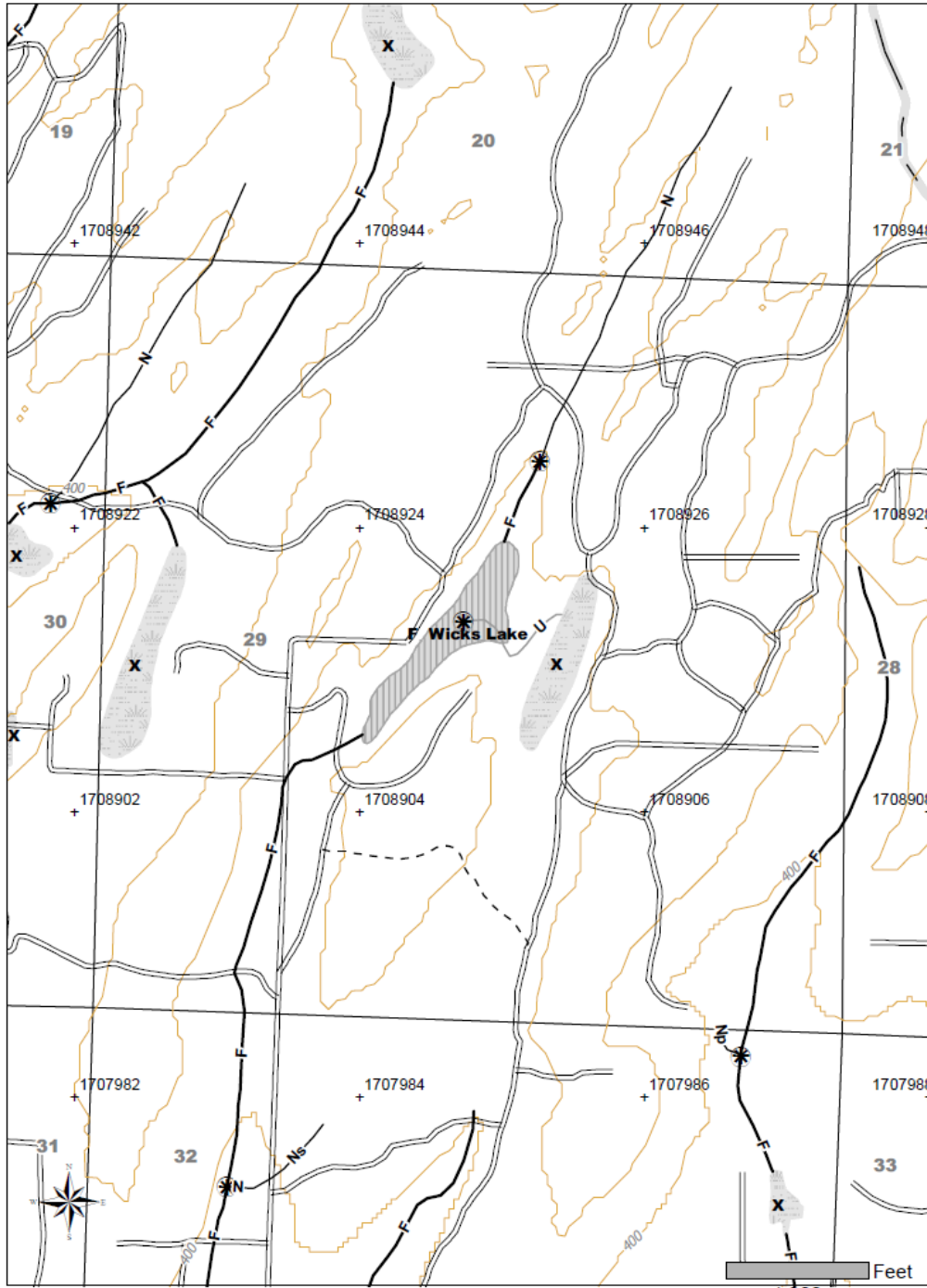
Culverts must be a minimum of 18" in diameter and must meet current WDFW and DNR design standards. Currently, no anadromous fish are present in the park and are utilizing the park's wetland habitat; other smaller wetlands in the park may also provide critical habitat for amphibians and wildlife.

All forest roads and culverts need annual maintenance. Maintenance typically consists of clearing and cleaning culverts and ditches of debris and vegetative growth. Graded forest road surfaces restore the proper movement of water off the forest road surface and to prevent rutting and head cuts. Forest roads and culverts should be inspected before the fall rainy season and after any periods or record rainfall. A spring inspection will help identify problems that need attention during summer dry season.

**FOREST PRACTICE ACTIVITY MAP**

TOWNSHIP 23 NORTH HALF 0, RANGE 01 EAST (W.M.) HALF 0, SECTION 29

Application #: \_\_\_\_\_



Please use the legend from the FPA Instruction or provide a list of symbols used.

Date: 8/27/2018 Time: 1:24:51 PM  
NAD 83  
Contour Interval: 40 Feet

Existing Historic Service Roads at Wicks Lake Park

## APPENDIX 5: FIRE RISK REDUCTION

### Fire Risk Reduction Strategies for Wicks Lake Park

The objective of fire risk mitigation in the park is to reduce the potential for a crown fire. Because we cannot control the weather or change the topography of the park we are left with control and distribution of fire fuels as our only viable option for reducing the intensity of a fire. If successful, this strategy would not prevent fire, which is a natural part of the environment, but reduce the fire's intensity by limiting it to a ground fire or surface fire. Reducing the potential for a fire to occur and creating a defensible space are other options that are compatible with long range goals and objectives for this park.

**Ground fires:** least damaging and limited to duff with no visible flames (smoldering)

**Surface fires:** produce a flame front and can be destructive

**Crown fires:** most destructive with flames spreading from tree crown to tree crown

### Recognition of the role of fire in maintaining natural ecosystems

Historical records show that wildfires have been a part of the natural environment for many centuries before the arrival of Europeans. A single fire that occurred on the Olympic Peninsula circa 1700, burned from near the Elwha southerly to the Hood Canal as far south as Belfair. Wildfires create new forests and contribute to the diversity of plants and habitats.

### Integrating Fire Management with Ecosystem Management

In addition to increasing plant and habitat diversity, employing Variable Density Thinning (thinning from below) reduces the potential for a crown fire by increasing the spacing between tree crowns. Thinning from below canopy retains larger more vigorous and fire-resistant trees and raises the base of tree crowns reducing ladder fuels.

“The common denominator is fuel

- Reduce surface fuels.
- Increase the height to the base of tree crowns.
- Increase spacing between tree crowns.
- Keep larger trees of more fire-resistant species.
- Promote more fire-resistant forests at the landscape level by reducing fuels both vertically and horizontally.”

Following these principles accomplishes three goals:

1. Reduces the intensity of a fire, making it easier for firefighters to suppress.
2. Increases the odds that the forest will survive a fire. Small trees, shrubs, and other understory vegetation may be injured or killed, but larger trees in the stand will only be scorched, and soil damage also will be reduced.

3. Reduces the extent of restoration activities needed, such as replanting or erosion control measures.

Specifics:

1. Access.

Maintain access for firefighting personnel and equipment.

2. Fuel Reduction Zones

Reduce fuel loading along trails by chipping or scattering. Control Scotch broom along existing service forest roads and the power line right-of-way.

3. Shaded Fuel Breaks

Take advantage of topography and enhance moist areas by removing dead wood and ladder fuels while leaving groundcover to increase moisture retention reducing the potential for a fire.

4. Mineral Soil Firebreaks

Maintain a minimum of 30-foot crown separation across existing forest roads and reduce fuels (noxious weeds and dead wood).

## **Appendix 6: Policy for the Protection and Restoration of Riparian and Wetland Management Zones in Kitsap County Parks**

The Kitsap County Forest Stewardship program is conducting restoration thinning in County parks within 200 feet of streams and wetlands; for that reason, it is important to establish a program specific policy for the protection and restoration of riparian and wetland management zones (RMZ/WMZ).

Non-conventional thinning in overstocked stands is a recommended practice within riparian and wetland management zones in Western Washington<sup>4</sup>. The Kitsap County Forest Stewardship program exclusively uses non-conventional thinning. Operationally called variable density thinning (VDT), this type of ecological restoration thinning is specifically recommended for young dense Douglas fir plantations and advances the forest health and habitat goals of the Kitsap County Forest Stewardship program.

### **Why Use Ecological Restoration Thinning?**

Restoration thinning is most beneficial in young (typically less than 50 years of age) dense conifer stands because of anticipated high growth rates<sup>2</sup>. Unlike conventional thinning, restoration thinning can maintain or accelerate dead wood production<sup>1</sup>. This is accomplished by leaving all or most of the dead wood as part of the thinning prescription. The approach is to use VDT to create variation in the forest landscape by crafting tree clumps, skips and openings that closely mimic natural forest conditions<sup>5</sup>. Additionally, non-Douglas fir tree species in the management zones are reserved as leave trees.

Healthy, diverse forests contain dead trees. Properly implemented, VDT will result in continued stand mortality that will continue to contribute dead wood to streams and wetlands. Thinning prescriptions will also call for the artificial creation of snags. Studies show that ninety-five percent of near-stream wood inputs come from within 82 to 148 feet of a stream; shorter distance occur in young, shorter stands and longer distances occur in older and taller stands<sup>1</sup>. Therefore, RMZs will increase over time.

The Washington Forest Practices Rules do address the RMZ and WMZ requirements for Western Washington but given the ecological health and habitat goals for county parks, the Forest Stewardship Program elects to increase protection for both wetlands and riparian areas. The Kitsap County Forest Stewardship Program policies for RMZ and WMZ are to be followed unless a site specific adaptive management prescription is approved by the Forest Stewardship Committee and the Kitsap County Community Forester. Under no circumstance can the WMZ or RMZ be less than what is required under the Washington Forest Practice Rules.

---

<sup>4</sup> Spies, Thomas, Michael Pollock, Gordon Reeves and Tim Beechie. 2013. Effects of Riparian Thinning on Wood Recruitment: A scientific Synthesis. Science Review Team Wood Recruitment Subgroup, Forest Sciences Laboratory, Corvallis, OR.

<sup>5</sup> Kerr, Andy, and Derek Churchill. 2012. Ecological Appropriate Restoration Thinning in the Northwest Forest Plan Area. Conservation Northwest, Geos Institute, Klamath-Siskiyou Wildlands Center and Oregon Wild. Seattle, WA.

## Wetland Management Zones

In Kitsap County Parks, all wetlands are important regardless of their size and will be protected by a minimum buffer, with no harvest or use of equipment within the wetland management zone. Within wetland management zones all restoration thinning will be limited to low-impact harvest systems, specifically a cut-to-length (CTL) harvest system.

The WMZ will be measured horizontally from the edge or the point where the non-forested wetland becomes a forested wetland as determined by the method described in the Forest Practices Board Manual, Section 8 – Guidelines for Wetland Delineation. The delineation shall be of an average width as described per wetland type in the red columns. Forest Practices require that the WMZ not be less than the minimum nor more than the maximum (as shown in the red columns of Table A).

For Kitsap County Parks, the minimum WMZ for Type A and B wetlands (blue column of Table A) is basically equal to the WA FPA average width; thereby providing twice the protection. In WMZ's that exceed the KC Parks Minimum width, a total of 100 to 140 leave trees per acres greater than six inches dbh will remain; fifty of which will be greater than twelve inches DBH including 10 trees greater than twenty inches DBH, where they exist.

For Kitsap County Parks, Type B wetlands under ¼ acre and all forested wetlands will be protected with the no-harvest WMZ widths shown in the blue column of Table A.

**Table A: Policy for Wetland Management Zone (WMZ) Protection**

**Forest Practices – Wetland Type with buffers showing additional park requirements.**

Wetland Type	Acres	WA FPA Maximum Width	WA FPA Average Width	WA FPA Minimum Width No Harvest	KC Parks Minimum Width No Harvest
A (including bogs *)	Greater Than 5	200'	100'	50'	100'
A (including bogs *)	.5 to 5	100'	50'	50'	100'
A (Bogs only)	.25 to .5	100'	50'	25'	50'
B	Greater than 5	100'	50'	25'	50'
B	0.5 to 5	No WMZ	No WMZ	25'	50'
B	0.25 to 0.5	No WMZ	No WMZ	25'	50'
B	< 0.25	No WMZ	No WMZ	No WMZ	50'
Forested	n/a	No WMZ	No WMZ	No WMZ	50'

The columns highlighted in red represent WMZ no harvest zones under Forest Practices; the blue columns specify the Kitsap County Forest Stewardship Program WMZ policy for enhanced wetland management zone protection in Kitsap County Parks.

## Riparian Management Zones

Decisions regarding Riparian Management Zone (RMZ) are more complicated than WMZ's as there are many options based on the presence or absence of: fish, cultural resources, threatened or endangered species, seasonal or perennial stream flow and stand age and density. Generally, rules in the Washington Forest Practices law protect fish bearing waters (Type F and S) quite well. The 4a Option (Tables B), no harvest within the inner zone or a small landowner "Alternative Plan" (Table C) will be used by the Forest Stewardship Program for the young plantation stands bordering streams in Kitsap County Parks.

The Kitsap County Forest Stewardship Program manages park forests for forest health and wildlife, as opposed to previous management for fiber production. With the exclusive use of restoration thinning (thinning from below) and leaving more trees per acre than the required minimums, the prescription will significantly preserve forest hydrology and provide for the recruitment of deadwood. By more than doubling the leave trees, required under Forest Practices Rules, beyond the no harvest in the Inner Zone (Option 4a in Tables B) there is no need to increase the core and inner zone buffers.

The columns highlighted in red represent FPA no harvest zones; blue columns indicate the Kitsap County Forest Stewardship Program policy for enhanced riparian management zone protection in Kitsap County Parks.

### Tables B: Policy for Type S/F Stream Protection - No-Harvest Inner Zone

#### Type "S" (Shoreline) and "F" (Fish bearing) Streams

##### 4a No Inner Zone Harvest - Buffer Width by Site Class (Stream <10 feet)

Site Class	WA FPA Core Zone No Harvest	WA FPA Inner Stream < 10' No Harvest	Total Buffer Width No Harvest	WA FPA Outer Zone TPA Minimum	Kitsap County Forest Stewardship Program Outer Zone Average TPA
I	50'	83'	133'	20	100 to 140
II	50'	63'	113'	20	100 to 140
III	50'	43'	93'	20	100 to 140
IV	50'	23'	73'	20	100 to 140
V	50'	10'	60'	20	100 to 140

##### 4a No Inner Zone Harvest - Buffer Width by Site Class (Stream > 10 feet)

Site Class	WA FPA Core Zone No Harvest	WA FPA Inner Stream > 10' No Harvest	Total Buffer Width No Harvest	WA FPA Outer Zone TPA Minimum	Kitsap County Forest Stewardship Program Outer Zone Average TPA
I	50'	100'	150'	20	100 to 140
II	50'	78'	128'	20	100 to 140
III	50'	55'	105'	20	100 to 140
IV	50'	33'	83'	20	100 to 140
V	50'	18'	68'	20	100 to 140



**Table C: Policy for Type S/F Stream Protection Using Alternate Plan**

**Small Landowner Alternate Plan – Type S & F Stream Fixed Width, No Harvest, by Site Class**

Site Class	WA FPA - No Harvest Core Zone	Kitsap County Forest Stewardship Program - Minimum No Harvest Core Zone	Kitsap County Forest Stewardship Program Average TPA For Outer Zone
I	145'	145'	100 to 140
II	118'	118'	100 to 140
III	101'	101'	100 to 140
IV	82'	82'	100 to 140
V	75'	75'	100 to 140

Both perennial and seasonal streams need protection. Because the Kitsap County Forest Stewardship Program manages park forests for ecological diversity and wildlife, restoration thinning will significantly enhance forest hydrology and provide for the recruitment of deadwood into Type Np and Ns streams. The blue column in Table(s) D indicate the buffer widths for Type Np and Ns streams under the Kitsap County Integrated Forest Stewardship Policy for Kitsap County Parks.

**Tables D: Policy for Np/Ns Stream Protection No-Harvest Buffer**

**Type “Np” (Non-Fish Perennial) Streams**

From S or F Stream Length of Np Stream	WA FPA- No Harvest Width Np	Kitsap County Forest Stewardship Program – Minimum No Harvest Buffers
Length > 1000, First 500'	50'	50'
Length <1000, First 300'	50'	50'
Length < 300'	50'	50'
Beyond 1,000'	0' with 30' ELZ	50'
All Sensitive Sites	50 to 56'	50 to 60'

**Type “Ns” (Non-Fish Seasonal) Streams**

WA FPA- No Harvest Buffer Width for Ns Stream	WA FPA Type Ns Restriction	Kitsap County Forest Stewardship Program Buffer Minimum No Harvest Buffer
0'	30' ELZ	50'

## Glossary

<b>Bogs</b>	A unique wetland with peat or muck to 16 inches or more and vegetation, such as sphagnum moss, Labrador Tea, Bog Rosemary and other hydrophilic plants, requiring acidic soils. True bogs are rare on the landscape and included here as bogs are Poor Fens for purposes of Forest Practices.
<b>Complex Canopy</b>	A forest canopy with multiple canopy layers; trees of different heights forming multiple canopy layers; typically made up of multiple tree species, each with a different tolerance for shade
<b>Culvert</b>	Pipes, typically made of corrugated plastic, used to convey water under service roads. Minimum diameter is 18 inches.
<b>Cut-to-length</b>	Timber harvested and cut into marketable log lengths, usually 16 to 24 feet in length, throughout the harvest unit. Also referred to as short log logging.
<b>DBH</b>	The Diameter of tree at Breast Height (4.5 feet)
<b>ELZ</b>	Equipment limitation zone on type Np/Ns streams
<b>Forest Practices Application</b>	Washington Department of Natural Resources timber harvest permitting system. Also referred to as an FPA most forest practices including road work requires a permit.
<b>Forest Restoration</b>	Replanting indigenous forest trees, typically Douglas fir, western hemlock and western red cedar seedlings.
<b>Forested Wetland</b>	A wetland with a tree crown closure of 30% or more, if trees are mature.
<b>GPC</b>	Great Peninsula Conservancy, a regional land trust that covers Kitsap, Mason and portions of Pierce Counties.
<b>Large woody debris</b>	Fallen trees, and scattered logs and wood chunks that provide habitat for wildlife.
<b>Noxious Weed</b>	A high invasive non-native plant that is legally designated as a weed requiring control/management to prevent the production of seeds and or vegetative spreading.

<b>Overstocked stand</b>	A forest unit with so many trees that crowding causes a tree stress, lack of vigor and increased susceptibility to disease, insects and fire.
<b>Prophylactic Care</b>	Guarding from or preventing the spread or occurrence of disease or infection.
<b>QMD</b>	Quadratic Mean Diameter – is the measure of average tree diameter conventionally used in forestry, rather than arithmetic mean diameter.
<b>Relative Density</b>	A descriptive term that relates to the density of a timber stand to a fully stocked level. An ideal RD for wildlife habitat is between 25 and 45.
<b>Restoration Thinning</b>	The thinning of stands of trees to improve tree health, vigor and resistance to insects, disease and fire. Thinning also improve wildlife habitat by improving the diversity of forest trees, shrubs and herbaceous plants.
<b>Riparian Mgt. Zone</b>	RMZ - Protective buffer bordering fish bearing streams, lakes and shorelines.
<b>RMAP'S</b>	Road Maintenance and Abandonment Plan: and plan for the long terms maintenance and possible abandonment of service roads.
<b>Simple Canopy</b>	A forest with one canopy, typically made up of pioneer tree species that are planted or naturally seeded.
<b>Snags</b>	Standing trees that have died. Snags provide habitat for all kinds of wildlife.
<b>Stem Exclusion</b>	A forest condition were the forest trees are so numerous that all the trees lack the light, moisture and nutrients needed to thrive.
<b>Thinning - Conventional</b>	A thinning that spaces the leave trees out as equally as possible and is designed as a method to produce the highest quality wood for an eventual final harvest.
<b>Thinning - Non-Conventional</b>	A thinning where the smallest trees are removed first, thinning from below leaving the largest trees and clumps of trees along with skips and small openings; thereby creating a highly varied forest landscape. Often referred to as Variable Density Thinning.

<b>Type “A” Wetland</b>	An area of ½ acre or more covered by open water seven consecutive days between April 1 <sup>st</sup> and October 1 <sup>st</sup> . This includes forested and non-forested bogs that are greater than ¼ acre.
<b>Type “B” Wetland</b>	An open area of ¼ acre or more that is vegetated with water tolerant plants and/or shrubs.
<b>Type “S” Shoreline</b>	Shorelines of Washington State
<b>Type “F” Stream</b>	Streams and associated ponds that are used by fish
<b>Type “Np”</b>	Non-fish Perennial, year-round stream flow (sometimes below the surface)
<b>Type “Ns”</b>	Seasonal streams that may or may not be non-fish
<b>Variable Density Thinning</b>	Forest thinning where approximately 20 percent of the unit is left or skipped; 20 percent of is opened, creating gaps; and the remaining 60 percent is thinned to density that improves tree vigor. Typically, the smaller trees are remove first followed by intermediate sized and some larger trees.
<b>Wetland Mtg. Zones</b>	WMZ – A buffer bordering wetlands designed to protect the wetland and provide large conifers for habitat, snags and large-woody-debris.