KITSAP COUNTY
PARKS ADVISORY BOARD MEETING

DATE: Wednesday, November 19, 2025

TIME: 6:00 PM - 8:00 PM

LOCATION: This is a hybrid meeting. It will be held in-person at the Eagle's Nest Community Center (1195 Fairgrounds Road, Bremerton) and on 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 October 22, 2025 meeting minutes

III. Public Comment (3-minute limit/person)

Public comments are welcome at this time. If you have questions or are seeking information from the Parks Department, please contact us at parks@kitsap.gov so that your inquiry may be directed to the appropriate Parks Department staff for a response.

IV. Special Presentations/Reports

a. Board Position Elections (Chair, Vice Chair) — Chair/Nominating Committee/Board

b. Forest Restoration and Stewardship Policy and Stragegic Plan — Irene Weber

V. Parks Report

a. Director's Report — *Alex Wisniewski, Alex Hardy, Irene Weber, Carmen Smith, Bre Ganne*

VI. Sub-Committee Meetings (since last PAB meeting)

a. None

VII. District Representative Reports

VIII. Public Comment (3-minute limit/person)

IX. Adjournment

KITSAP COUNTY
PARKS ADVISORY BOARD MEETING

2025 Sub Committee Assignments

Sub Committee	Type	Focus Area	PAB Members	Parks Staff *(may vary by topic)*
Finance & Budget	Standing (per by laws)	• Operating Budget • Funding Opportunities	Linda Nancy Larry	Parks Director
Capital Projects & Parks	Standing (per by laws)	• Capital Projects Program • M&O Program	Lisa Dawn Jon Amy	Parks Planner M&O Supervisor
Community Outreach & Visitor Services	Ad Hoc	• Events and Rentals Program • Marketing • Volunteer Program • Youth Engagement	Nancy Jessica	Marketing & Events Supervisor Natural Resources Supervisor
Planning & Property	Ad Hoc	• Planning Program • Natural Resources Program • Land Acquisition & Divestiture • Park Code	Lisa Dawn Linda Jon	Parks Planner Natural Resources Supervisor

2025 Agenda Items and Sub-Committee Meetings

Month	Task or Agenda Item	Board or Sub-Committee Assignment
January	Board Chair and Vice Chair Elections	Board (completed in October 2024)
	PAB Annual Workplan	Board
	Sub-Committee Assignments	Board
	Events Year in Review	Board
February	PROS Plan	Board
	PAB Annual Workplan	Board
	Sub-Committee Assignments	Board
March	PROS Plan	Board
	Sub-Committee Assignments	Board
April	PROS Plan	Board
May	CIP Priority Methodology Development	Capital Projects & Parks
	Maintenance & Operations Study	Board
June	CIP Priority Methodology Development	Capital Projects & Parks
	Forest Restoration & Stewardship Policy	Planning & Property
	Draft CIP Development	Capital Projects & Parks
July	Forest Restoration & Stewardship Policy	Board
	Events Policy and Fee Schedule	Community Outreach & Visitor Services
August	Draft CIP Development	Board
	Forest Restoration & Stewardship Policy	Board
	Events Policy and Fee Schedule	Community Outreach & Visitor Services
September	2026 Budget Development	Board
October	Nominating Sub-Committee (appointed by Chair)	Chair
	Events Policy and Fee Schedule	Board
November	Forest Restoration & Stewardship Policy	Board
December		

KITSAP COUNTY PARKS ADVISORY BOARD
DRAFT October 15, 2025
MEETING MINUTES

The meeting was called to order at **6:00 PM** by Vice-Chair **Larry Walker**. Meeting guidelines were read aloud.

I. WELCOME AND INTRODUCTIONS

II. ADOPTION OF MINUTES - September 17, 2025, PAB Meeting Minutes

- **Motion**: Dawn Dockter moved to adopt the minutes.
- **Second**: Lisa Hurt
- **Discussion**: None
- **Vote**: Unanimous approval. No opposition.
  → **September minutes approved.**

III. PUBLIC COMMENT PERIOD –

- Rebecca Wood
  Comments and concerns regarding the Forest Stewardship and Restoration updates at Banner Forest.
- Joe Lubischer
  Comments and concerns were raised regarding the lack of specifics, details, and sentiment for public comments during Parks Dept Parks Advisory Board meetings.
- Alan Marshall
  1. Propose that no heavy equipment be used at Banner Forest
  2. Comments that the 2025 draft Forestry Plan does not align with 2015 Banner Forest Management Plan.
  3. Community wants to assist the county and help steward Banner Forest.

IV. SPECIAL PRESENTATIONS/REPORTS –

a. Nominating Sub-Committee – Chair and Vice Chair position to be filled by January 2026. Jen and Dawn volunteered to be on committee. One vacancy remains.

b. Events Policies Update- Alex Hardy presented an overview of the 5 policies, a review of the changes compared to current rental rates.
   - Athletic Fields
   - Community Buildings
   - Fairgrounds and Events
   - Outdoor and Open Spaces
   - Special Events

   PAB asked questions and discussed rates and policies.

- **Motion**: Dawn Dockter moved to advance the policies.
- **Second**: Jen Skalbeck
- **Discussion**: No further discussion

- **Vote**: Unanimous votes to approve. No opposition.
  → **Advance Events and Fees Policy Updates to BoCC for approval**

c. Tidelands Easement **–** County is in discussion regarding the Port Gamble S'Klallam Tribe request for a conservation easement over County owned tidelands at Port Gamble Forest Heritage Park**.**
d. Olney Creek Fish Passage Project – WSDOT project to remove fish barrier and improve fish habitat. One of four alternative traffic routes during construction would create temporary bypass road through Veteran's Memorial Park.

V. PARKS REPORT

a. Director's Report – provided in writing
b. 2026 Budget Update – BoCC decision to restore all Park Seasonal positions that the department proposed to cut to meet 2026 budget cuts.

VI. SUB-COMMITTEE MEETING (since last PAB meeting) – None

VII. DISTRICT REPRESENTATIVE REPORTS –

- North District | Stottlemeyer parking lot
  - pothole issues,
  - No speed limit signs at trailhead
  - Trail construction debris by Coyote Trail
  - Appreciation for restoring toilets at Arness Park
- Central District | Trail improvements at Newberry Hill Heritage Park
- South District | New Stewardship Program to begin at Coulter Creek Park

VIII. PUBLIC COMMENT

- Joe Lubischer
  Comments and questions regarding Event fees and policies, concerns regarding fee schedule equitably reflecting impact and size of group, and concerns regarding safety and conflicts between fast bikers and pedestrians at PGFHP. Comment regarding RCO conversions.
- Carol Price
  Comments, concerns and questions about Eglon Park.
- Kathie
  Concerns regarding conversions of park lands and conservation easements.

IX. ADJOURNMENT

- **Motion:** Dawn Dockter moved to adjourn.
- **Second:** Lisa Hurt
- **Discussion:** None
- **Vote:** Unanimous approval. No opposition.
  → Meeting adjourned at **8:02 PM.**

PARKS ADVISORY BOARD MEETING |ATTENDANCE

PAB MEMBERS	STAFF	PUBLIC (Online Only)
Larry Walker - South	Alex Wisniewski - Director	Online public attendee names not captured
Dawn Dockter - South	Bre Ganne – M&O Supervisor	

Lisa Hurt - North	Alex Hardy – Admin and Events Supervisor	
Nancy Whitaker - Central	Chuck Cuzzetto – Communication and Public Relations Coordinator	
Jen Skalbeck - North	Irene Weber – Natural Resources Supervisors	

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Alex Wisniewski, Director

Director's Report

Date: 11/17/2025
To: Parks Advisory Board
From: Alex Wisniewski, Parks Director

Administration Program

All Staff Meeting

On November 12, 2025, the Parks department held its final staff gathering of the year at the Pavilion. The meeting had a dual purpose of reflecting on 2025 accomplishments and providing space for employee engagement and collaboration. Activities included department program updates, a Start/Stop/Continue exercise, accomplishment sharing, a trivia game about Kitsap County Parks, and staff discussing what they are excited about in 2026.

Maintenance Management Software

Kitsap County Parks and Facilities have been using a maintenance management software program called Asset Essentials. Use of the program began in 2018, but it was never set up correctly or completely and, because of this, has not been very functional for either Parks or Facilities. Over the past couple of years, staff have been evaluating Asset Essentials and comparing it to Cartegraph, a more robust software program used by multiple divisions in the Public Works department. The purpose of the evaluation was to determine if Parks should invest further in Asset Essentials to get it functioning properly or, instead, migrate to Cartegraph. Both software programs offer somewhat similar basic functions – asset tracking, work orders, preventative maintenance, etc. – but Cartegraph's platform has a more robust integration with GIS, which offers the ability to have greater cross-departmental information and data sharing between Parks, Public Works, and Facilities. Additionally, there is also some uncertainty surrounding the future of Asset Essentials and its continued support by its parent company. Given this, Parks and Facilities have been collaborating with each other and with IS and the Budget Office to develop a plan to transition to Cartegraph that includes a timing overlap with Asset Essentials and absorbing costs into current operational budgets. Public Works already has a contract with Cartegraph so Parks and Facilities would be added via a contract amendment. An amendment to add Parks and Facilities is currently in routing and will come to the Commissioners on November 24, 2025.

- *Supports PROS: Goal PR-6, Objective 6.1 (Action 6.1.1, 6.1.2, 6.1.3), Objective 6.2 (Action 6.2.2), Objective 6.3 (Action 6.3), Objective 6.4 (Action 6.4.1), Objective 6.5 (Action 6.5.2)*

Volunteer Program

Program Restructure Update

Park staff have been actively engaged in updating the Volunteer Program to enhance participation, coordination, and program effectiveness. As part of this process, meetings with park stewards were scheduled in late October and early November to gather feedback before presenting the revised program to the Board of County Commissioners.

To date, staff have met with three stewardship groups to review and discuss the draft update. Stewardship members have been invited to provide additional feedback on the draft proposal through November 21. Input received will be incorporated, as appropriate, into the final version of the Volunteer Program update to be presented to the Board of County Commissioners.

- *Supports PROS: Goal PR-1, Objective 1.6 (Action 1.6.3), Goal PR-1, Objective 2.2 (Action 2.2.1), Supports PROS: Goal PR-4, Objectives 4.2 (Action 4.2.1),*

Events Program

Event Policy Update

Kitsap County Parks has continually refined its event and facility management policies to enhance fairness, efficiency, and long-term sustainability across all park venues. The 2025 policy update reflects the culmination of a multi-year effort to align event procedures, rental fees, and community use standards countywide.

The Parks Advisory Board unanimously approved the updated Event Policies at its meeting on October 22, 2025 and the final policies are scheduled for consideration by the Board of County Commissioners on November 24, 2025. Upon approval, the policies will take effect on January 1, 2026.

- *Supports PROS: Goal PR-5, Objective 5.1 (Action 5.1.2)*

Events By the Numbers and Events Calendar

Data on the number of reservations at each of the Parks Facilities is attached; please see *Attachment A.*

- Outward-facing events calendar: Kitsap County Parks Event Calendar (kitsapgov.com)
- Online reservations and payment portal: Kitsap County Parks > Home (recdesk.com)

December Public Events		
Event	**Date**	**Location**
Big Top Gun Show	December 6-7	Van Zee at Fairgrounds & Events Center
Evergreen Artisan Exchange	December 12	Eagles Nest at Fairgrounds & Events Center
Washington Youth Academy Graduation	December 12	Pavilion at Fairgrounds & Events Center
Toys For Tots	December 13	Presidents Hall at Fairgrounds & Events Center
Hammerhead Wrestling Tournament	December 19-20	Pavilion at Fairgrounds & Events Center

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Alex Wisniewski, Director

BoCC-Sponsored Events

Event	Status	2025 Attendance
Martin Luther King Jr. Day	January 20, 2025	300
Military Appreciation Day	March 15, 2025	1,200
FARM Days	May 19-20, 2025	3,000
Veterans Day Ceremony	November 11, 2025	
Toys for Tots	December 13, 2025	

The Commissioner's Office and Parks are partnering on the implementation of 2024 Board-directed changes to the County's event support practices. Changes will be communicated to event organizers in early 2025 in close collaboration with Board members. Implementation of the changes will not take place until 2026.

Maintenance & Operations

Park and Facility Maintenance

In October, seasonal parks and facilities are closed for the winter months. This coincides with the loss of summer seasonal, part-time help and begins to shift focus for staff toward seasonal work. This includes closing gates and restrooms in select locations, winterizing restrooms and water systems, clearing storm drains, and maintaining drainage ditches and culverts. Staff also addressed hazardous or fallen trees and continued routine seasonal tasks such as leaf blowing and gutter clearing. Additional work included:

- The furnace at the Long Lake Park Community Center was repaired after a fan blower failed.
- The water well at Long Lake Park failed a 'total coliform' test for the second month in a row. Staff treated the well and distribution system and is contracting with a water system maintenance company to complete a State-mandated level 2 assessment and certification. Staff are exploring long-term solutions such as installing a chlorinator in the distribution system for consistent sanitization.
- Dozens of trees were cleared from parks and parking areas at Harper Park, North Kitsap Heritage Park, South Kitsap Regional Park, Island Lake, Wildcat Lake, Guillemot Cove, Anderson Point Park after recent storms.
- A new round rail fence was installed at the North Kitsap Heritage Park parking lot where previous split rail fencing was rotting and failing.
- The pier at Salsbury Point Park was removed for the winter season and will return in early April.
- A damaged gate and fencing at Bandix dog park were repaired.
- A large water leak was repaired in the Campground at the fairgrounds near the disc golf course. Three significant leaks in the last few months were also repaired and reported to the water company for leak adjustment credits.
- Emergency lights and door stoppers, as well as exterior lighting repairs were completed at Island Lake Community Center.

➢ *Supports PROS: Goal PR-6, Objective 6.1 (Action 6.1.2, 6.1.3), Objective 6.5 (Action 6.5.2)*

Trail Maintenance

- The Boundary trail boardwalk at North Kitsap Heritage Park was repaired.
- Fall trail maintenance continued in October, including corridor clearing at Port Gamble Forest Heritage Park and organic debris removal and leaf blowing on trails and boardwalks to help reduce mud buildup, at Guillemot Cove, Anderson Point, South Kitsap Regional Park, and Harper Park.
- Staff supported storm cleanup efforts by clearing downed trees over trails at Newberry Hill Heritage Park, Port Gamble Forest Heritage Park, Point No Point Park, Harper Park, and South Kitsap Regional Park.
- Staff supported Washington Trails Alliance in the completion of a turnpike and puncheon on Bobcat run trail at Newberry Hill Heritage Park.

➢ *Supports PROS: Goal PR-6, Objectives 6.3 (Action 6.3.1, 6.3.2), Objective 6.4 (Action 6.4.1)*

Ballfield Maintenance

South Kitsap Regional Park & Bloomquist Rotary Parks

Japanese Chafer beetles is an invasive turf pest newly detected in Washington State and are causing significant damage to athletic fields at South Kitsap Regional Park and have recently spread to Bloomquist Rotary Park. These beetles lay eggs in turfgrass, and their larvae feed on grass roots, leading to turf die-off, instability, and increased erosion risk. With few natural predators and limited established control methods in the region, their presence poses a serious threat to natural turfgrass. Parks staff have been battling this infestation for a year; actions taken and current status include:

- Field 1 at South Kitsap Regional Park has been closed due to severe root damage, making it unsafe for use.
- Turf quality and playability have declined, and beetle predator activity (e.g., raccoons, crows) is worsening the damage.
- The infestation is spreading and may affect additional fields if not contained.
- Insecticide treatment was applied in May, but the infestation proved more extensive than initially identified.
- Staff developed a monitoring program to track grub populations, define infestation boundaries, and evaluate treatment effectiveness.
- A multi-year management plan is underway, combining chemical treatment, turf restoration, and integrated pest management strategies to reduce grub populations and restore field conditions.

Other ballfield work in October included:

- Fall field maintenance has been completed, this includes top dressing, aeration and overseeding at all athletic fields, including those impacted by the Chafer beetle.
- The fields at Veterans Memorial Park and Gordon Park have been experiencing heavy use and wear this fall and both have poor water drainage. To support turf recovery, staff applied extra seed, sand, and performed aeration, particularly in drainage trenches and uneven playing areas. Mole activity at both sites has also been a challenge, as their tunnels create holes that require backfilling with soil and reseeding. South Kitsap Soccer Club, who uses these fields regularly, are also helping – Parks staff supplied them with extra seed and sand to assist with application as needed.

➢ *Supports PROS: Goal PR-6, Objective 6.1 (Action 6.1.2, 6.1.3), Objective 6.5 (Action 6.5.2)*

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Alex Wisniewski, Director

Unplanned Maintenance: Vandalism and HEART

Staff responded to multiple incidents of vandalism and encampment cleanup throughout the month:

- *Old Mill Park and Erlands Point Preserve:* Large abandoned camps were cleaned up in coordination with HEART. Maintenance is planned at Old Mill Park to improve sightlines and remove overgrown vegetation that creates concealment areas.
- *South Kitsap Regional Park:* Repeated graffiti removal was required at the restroom near the skatepark. Toilets were destroyed, doors were damaged, and extensive graffiti was found both inside and outside the building. Staff closed the restroom for the season and installed a portable toilet.
- *Calvinwood Lodge:* The lodge was broken into through the doors, with the hasp cut instead of the lock. The doors sustained significant damage, including a punched-out deadbolt. Staff have since boarded up the doors.
- *Coulter Creek Heritage Park, and Horseshoe Lake Park:* Gates at all three locations were vandalized—two were cut, and one appeared to have been struck by a vehicle. Repairs required welding and ground-work to restore them.
- *Wicks Lake Park:* Staff relocated eco blocks, dug a trench, and used stumps to block unauthorized access.
- *Illegal dumping:* Staff responded to several large item dumps across parks, including a truck canopy, multiple couches, and mattresses, using the SCF system.

Natural Resources Program

Forest Stewardship and Restoration Policy and 10-year Strategic Plan Update

See attached document for summary of updates to these documents based on commissioner feedback. *Staff will present on this topic.*

- *Supports PROS: Goal PR-2, Objective, 2.1 (Actions 2.1.2, 2.1.3, 2.1.4), Objective 2.2 (Action 2.2.1), Objective 3.2*

Forest Stewardship and Restoration Projects

Port Gamble Forest Heritage Park

These selective thinning 'treatments' remove trees in dense stands to create conditions that facilitate tree growth, increase resiliency to insects, disease, expected climate change, potential wildfires and improve habitat quality and overall ecological function of the forest. Reducing forest density also lessens competition between trees, lessens physiological stressors on the forest, and allows the remaining trees to become more resilient. Additionally, openings created in the canopy will allow light to reach the forest floor and encourage the reestablishment and growth of understory vegetation. Healthy, vigorous understory vegetation will improve wildlife habitats, resist invasive species establishment, and create more visually appealing conditions.

The restoration project at Port Gamble Forest Heritage Park is complete and has ended.

- *Supports PROS: Goal PR-2, Objective 2.1 (Actions 2.1.2, 2.1.3, 2.1.4)*

Environmental Assessments

Contracted environmental assessments have begun at the Eglon Forest property. Biologists and Ecologists from AECOM are performing vegetation mapping and wildlife habitat utilization surveys. This information will be used by Park staff to help identify natural resource management needs, sensitive areas, and inform planning processes. This work will continue in Port Gamble Forest and Coulter Creek Heritage Parks in 2026.

- *Supports PROS: Goal PR-2, Objective 2.1 (Actions 2.1.2, 2.1.3, 2.1.4), Objective 2.2 (Action 2.2.1), Goal PR-3, Objective 3.2 (Action 3.2.1)*

Point No Point Stormwater Drainage

Due to ongoing beaver activity within the stormwater drainage system at Point No Point Park, staff are continuing to notch and remove dams within the drainage channels in accordance with HPA permit guidelines. Notching will throughout the winter and staff will monitor water levels within the drainage channel.

- *Supports PROS: Goal PR-2, Objective 2.1 (Action 2.1.3), Objective 2.2*

Planning & Capital Program

Planning

Gordon Park Master Plan

Parks is beginning a master planning effort for Gordon Park. Through community engagement and site analysis, the Master Plan will establish a community vision for the future of the park and identify future development and amenities. Preliminary concepts include an accessible and inclusive playground with the potential to replace the current Kitsap Kids Playground and improvements to the Gordon 2 soccer field. Kitsap County released a Request for Qualifications (RFQ) in September, which received an overwhelming response of 14 submissions. Staff reviewed and evaluated all proposals and selected four firms to move forward to an interview. Work is expected to begin in 2026 and will include opportunities for public participation.

- *Supports PROS: Goal PR-1, Objective 1.3 (Action 1.3.2), Objective 3.2 (Action 3.2.1)*

Park Impact Fee Study

Parks is exploring financial options to conduct a Park Impact Fee (PIF) study. The last time Kitsap County conducted a PIF study was in 2003, and the rate was approved at 25% of the full rate the study indicated was necessary to keep up with population growth. An updated study and an increased rate approved by the BoCC could alleviate Parks would provide dedicated capital funding to Parks and could reduce the department's impact on REET funds for capital projects. Based on a review by the Prosecuting Attorney's Office, neither REET nor PIF funding can be used to pay for a new Park Impact Fee study. Cost estimate for the study is $50,000-$80,000.

- *Supports PROS: Goal PR-1, Objective 1.3 (Action 1.3.2), Objective 1.6 (Action 1.6.1)*

Dan Thompson Account Grant

In collaboration with the Kitsap Public Health District, Kitsap County Parks was awarded a Dan Thompson Account Grant. The grant, administered through Washington State Department of Social and Health Services, is intended to support programs and services for individuals with developmental disabilities. The project scope is to (1) improve the accessibility information listed on maps for outdoor trails and playgrounds throughout Kitsap; (2) refine a process for integrating accessibility into project planning and use that process to enhance accessibility and/or adaptive offerings at several parks or trails; and (3) conduct a targeted information campaign to publicize accessible outdoor locations and improve community engagement for children and adults with intellectual and developmental disabilities.

- *Supports PROS: Goal PR-1, Objectives 1.3, Objective 1.4 (Actions 1.4.1 & 1.4.2)*

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Alex Wisniewski, Director

Capital

Point No Point Park Beach and Shoreline Repair

The contract for construction services was approved on August 11, 2025 with Pacific Civil & Infrastructure Inc. Construction began on September 3, 2025, and completion is targeted for November.

- *Supports PROS: Goal PR-6, Objective 6.5 (Action 6.5.1)*

Port Gamble Forest Heritage Park – North Gateway Trailhead

Construction began on July 7, 2025, and completion is anticipated in November.

- *Supports PROS: Goal PR-4, Objective 4.1 (Action 4.1.2)*

Eagle's Nest Deck Replacement

FPH Construction was awarded the bid, and the contract was approved by BoCC on September 22, 2025. A pre-construction meeting was held on October 9, 2025. Construction has not yet begun but is anticipated to start in late November and last approximately 6 weeks.

- *Supports PROS: Goal PR-5, Objective 5.3 (Action 5.3.2), Goal PR-6, Objective 6.5 (Action 6.5.1)*

Suquamish Sport and Indianola Tennis Courts.

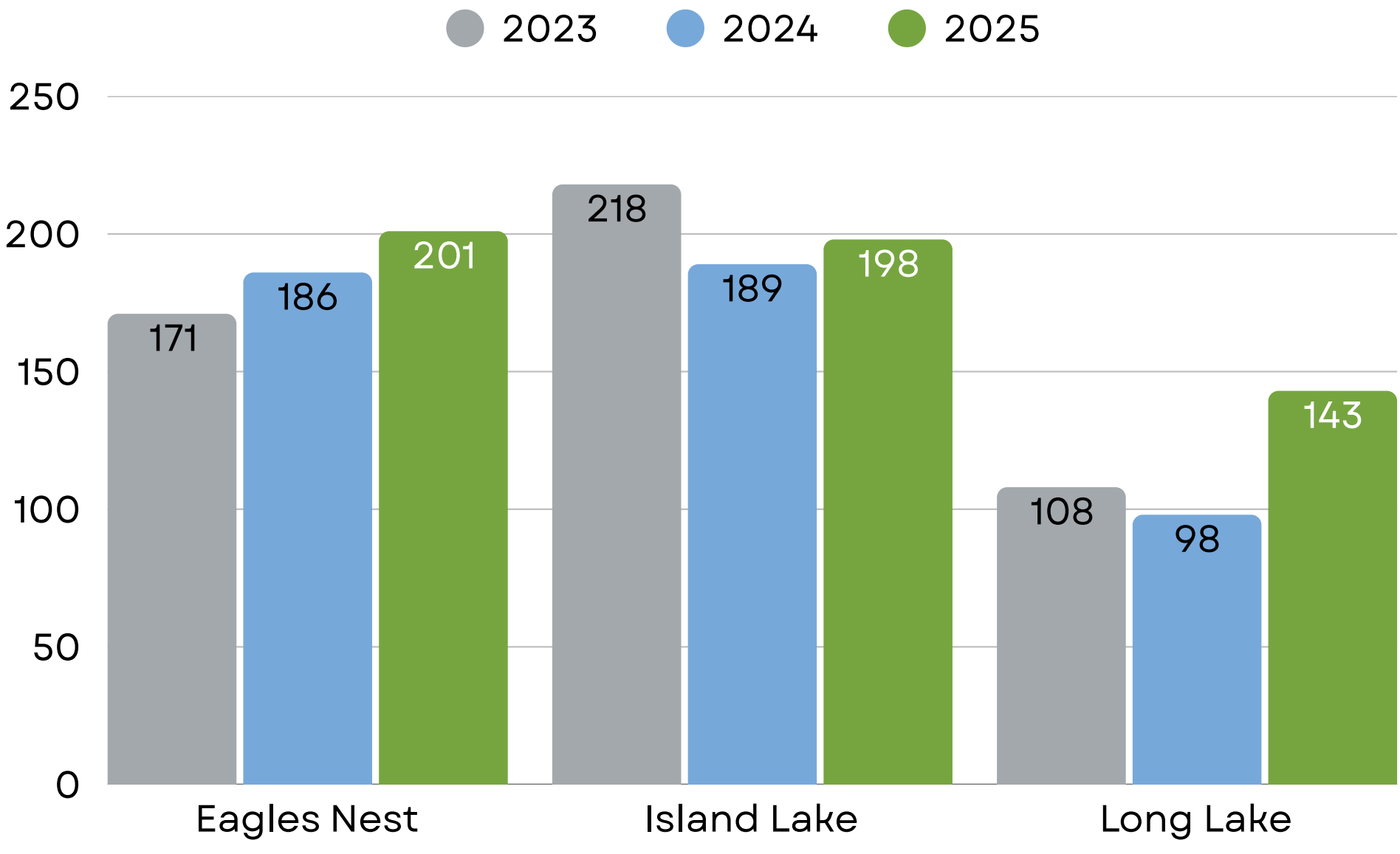
Securing a contractor to perform these projects has been challenging due to high cost estimates and contractor availability. Parks and Public Works CFD staff are pursuing other options to move these projects forward. Given this, these projects have been pushed to 2026.

- *Supports PROS: Goal PR-1, Objectives 1.3 (Action 1.3.1), Objective 1.4 (Action 1.4.1), Goal PR-5, Objective 6.5 (Action 6.5.1)*

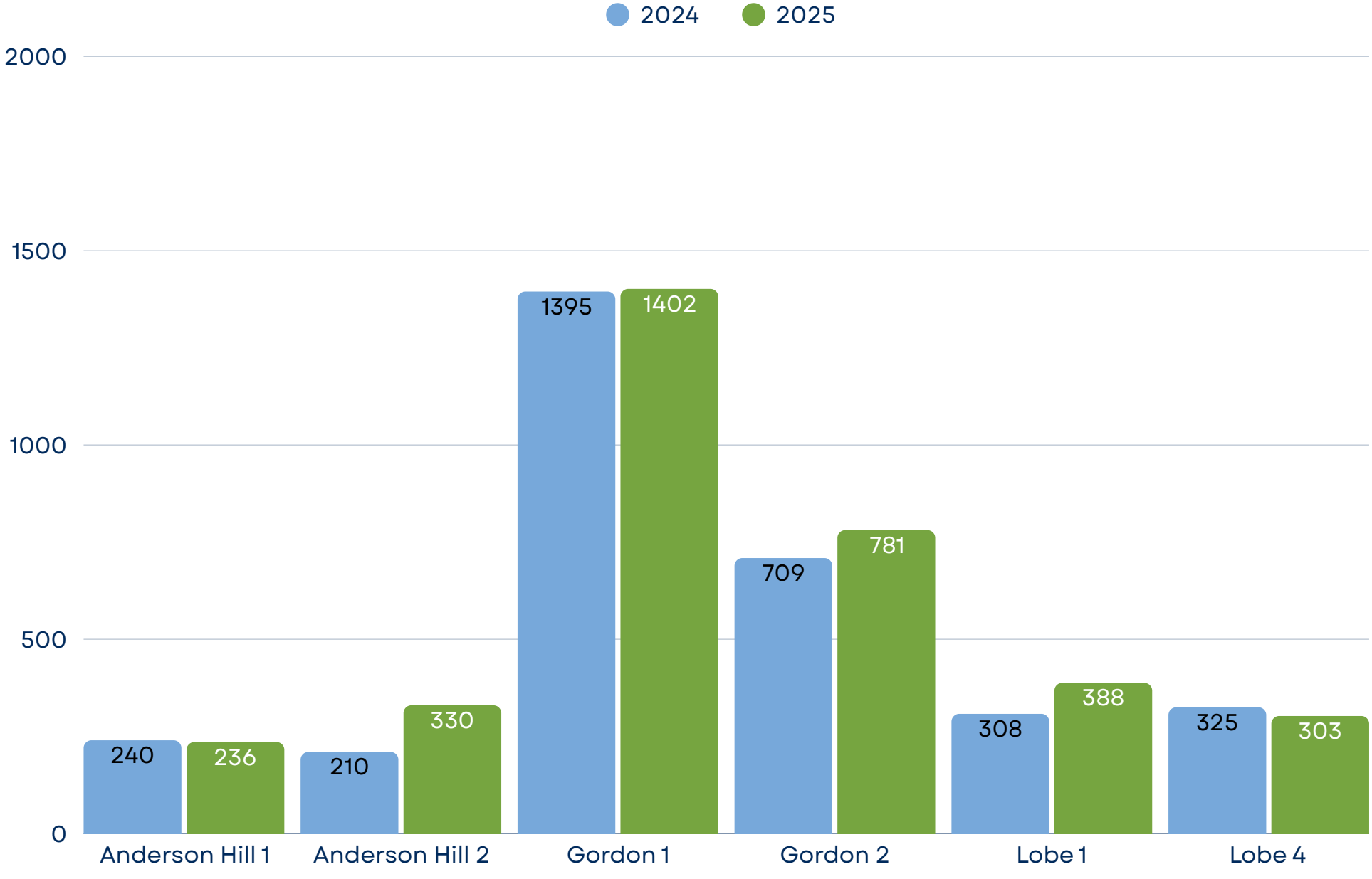
Attachments:

A. Events Data
B. Forest Stewardship and Restoration – Executive Summary
C. Forest Stewardship and Restoration – Policy – With Edits
D. Forest Stewardship and Restoration – Policy – Clean
E. Forest Stewardship and Restoration – Strategic Plan – With Edits
F. Forest Stewardship and Restoration – Strategic Plan – Clean

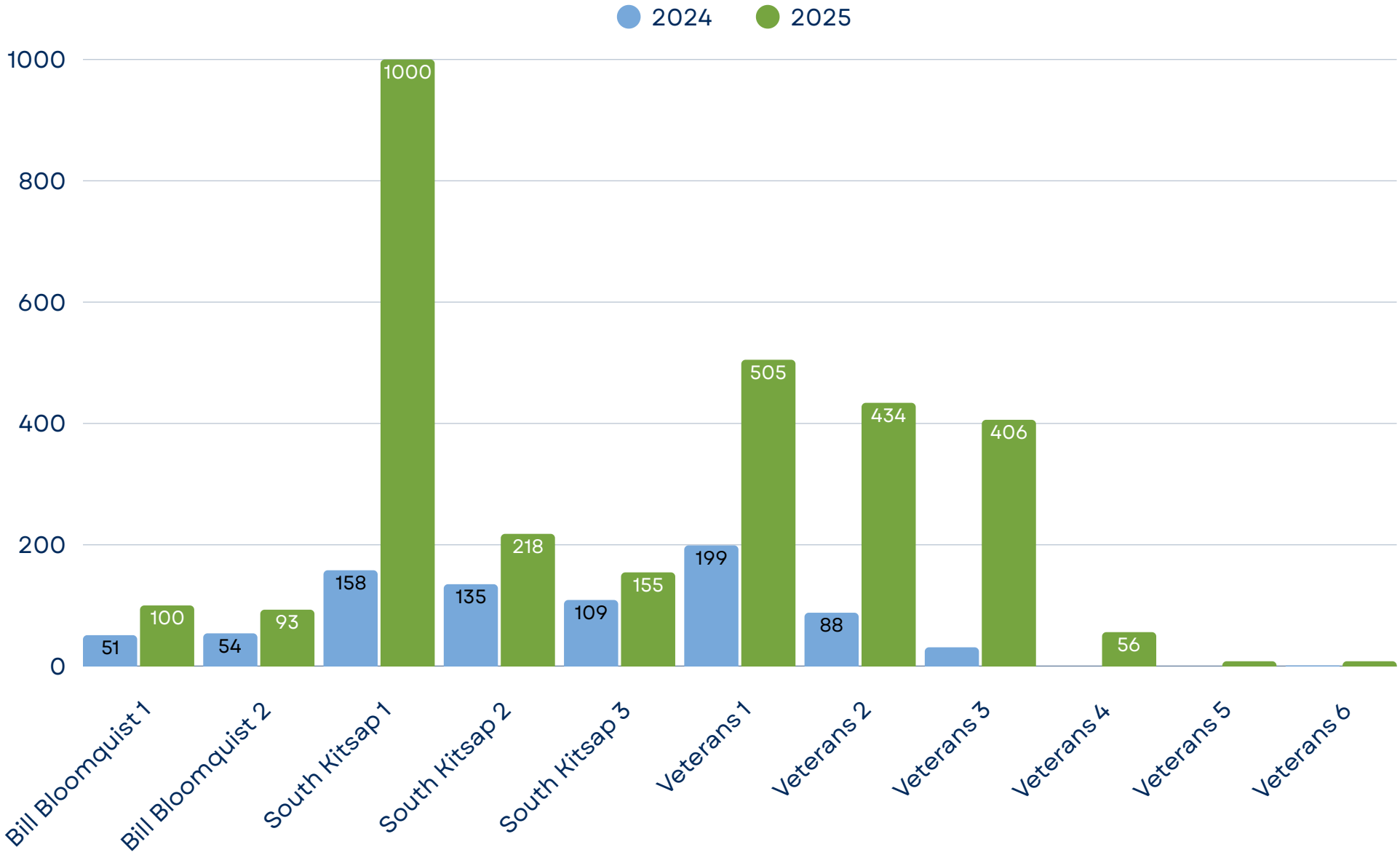
COMMUNITY BUILDING RENTALS



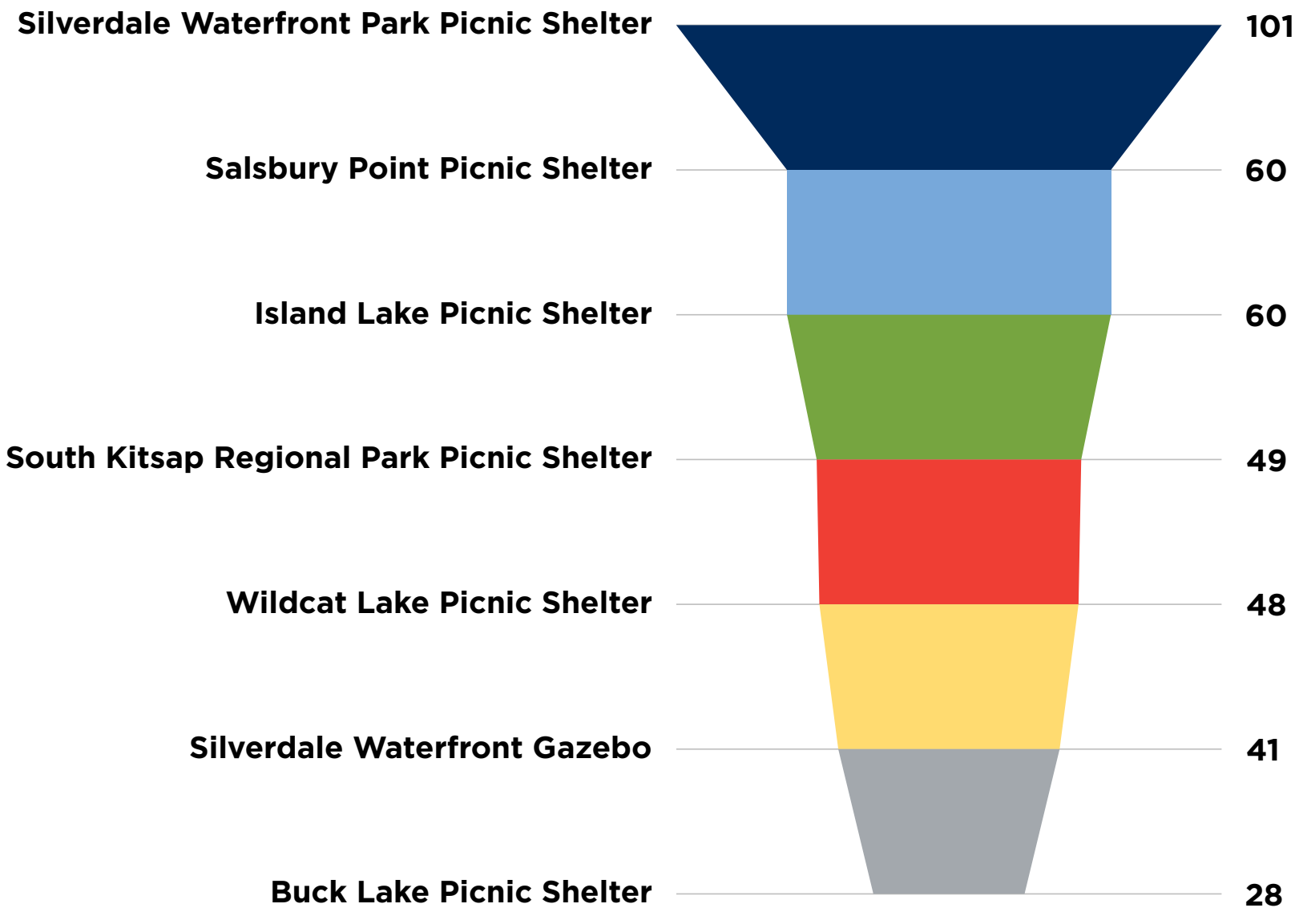
ATHLETIC FIELD USAGE IN HOURS CENTRAL



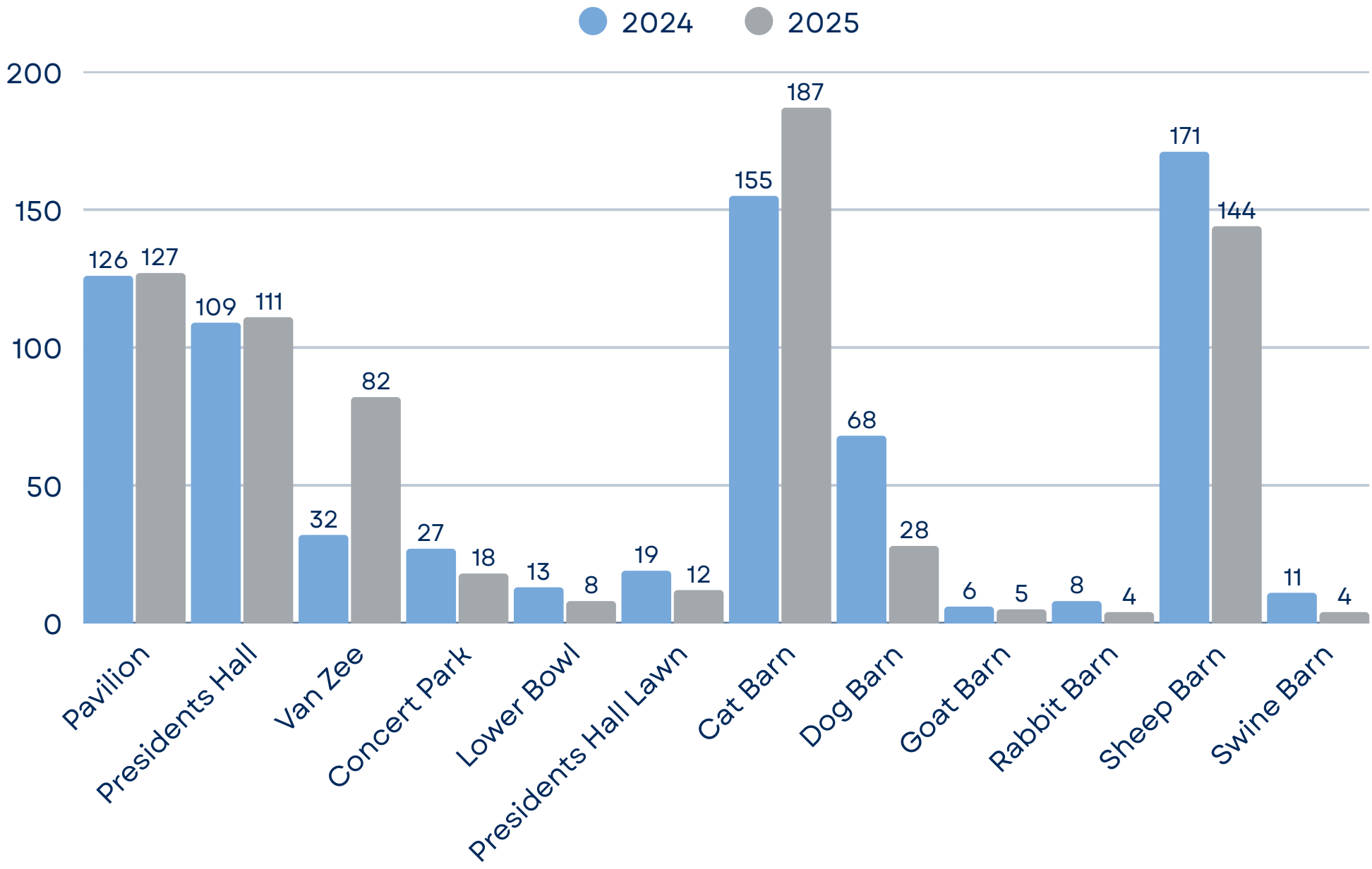
ATHLETIC FIELD USAGE IN HOURS SOUTH



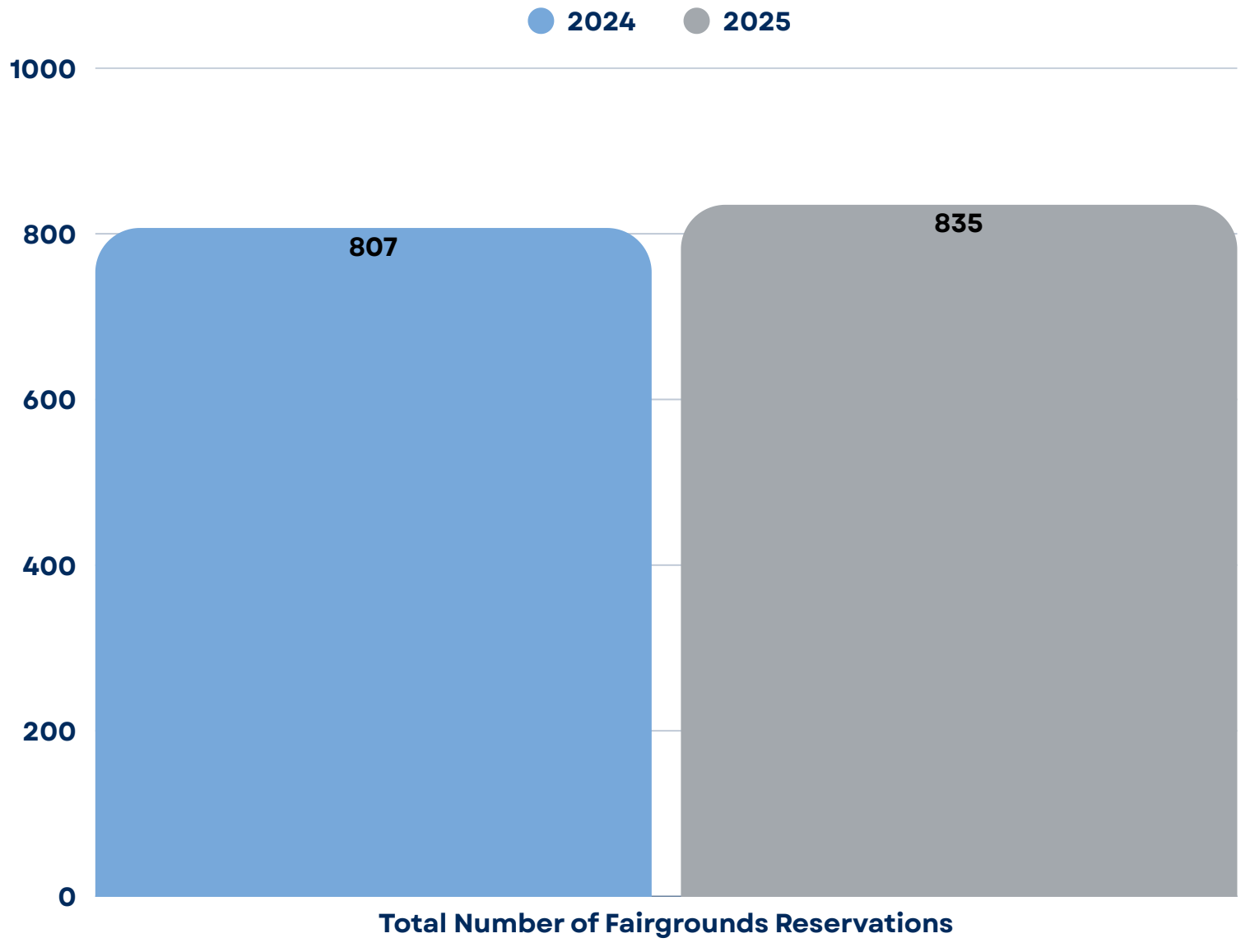
PICNIC SHELTER RENTAL DAYS



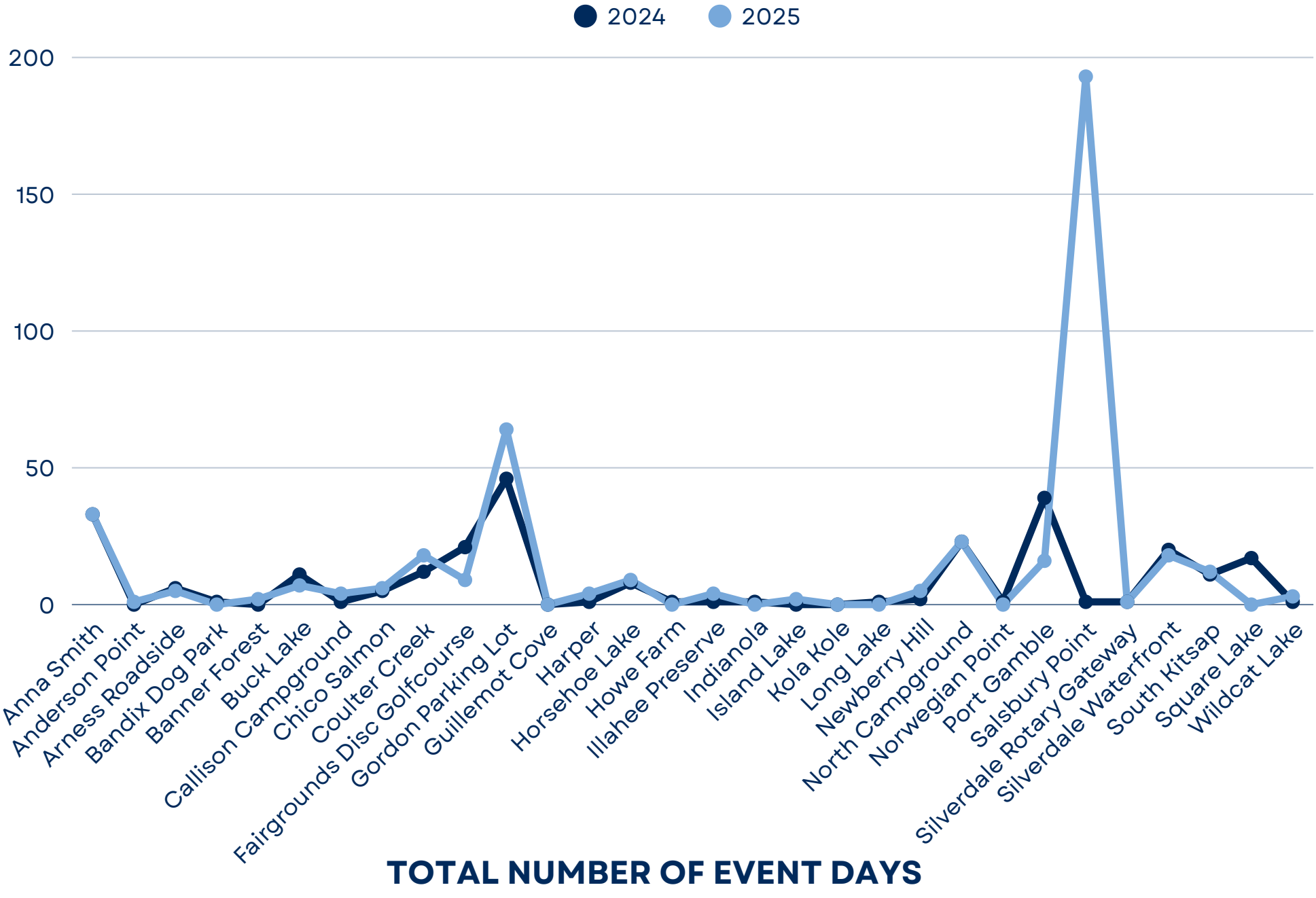
FAIRGROUNDS EVENT DAYS



FAIRGROUNDS EVENT DAYS

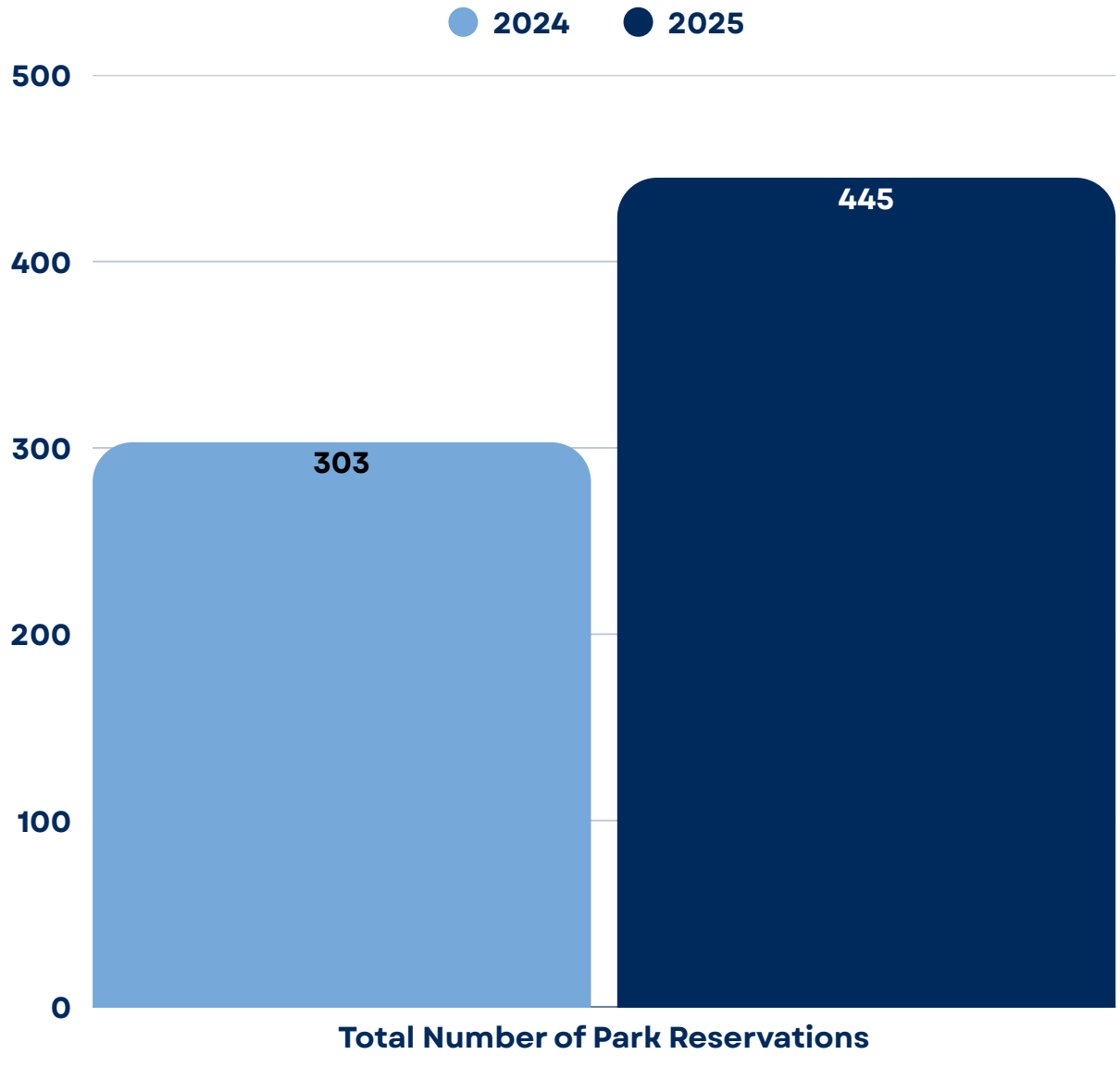


SPECIAL PARK EVENT DAYS



TOTAL NUMBER OF EVENT DAYS

SPECIAL PARK EVENT DAYS



TOTAL NUMBER OF EVENT DAYS

Executive Summary

Issue Description: Parks Forest Stewardship & Restoration Updates 2025.

Meeting Date: November 17, 2025

Attendee: **Kevin Ceder, Irene Weber**

Action Requested at This Meeting: This meeting is to brief the commissioners on the updates to the Parks Forest Restoration & Stewardship policy and implementation plan post public meetings and BOCC directives.

Background:

Many of the parks in our system are large, forested parcels, covering over 9,500 acres, that were acquired from state or private ownership and are the focus of the Forest Stewardship and Restoration Program. These were typically production tree farms that were logged at least once and densely replanted with the expectation of future logging. Conditions in these forests are departed from historic or desirable conditions leading to declines in forest health, resiliency, and habitat quality. The overarching goal of the Parks Forest Stewardship and Restoration Program is to restore these forests to a more healthy, resilient state and put them on a trajectory to develop towards mature forest conditions.

Parks Natural Resource Program staff have updated the Forest Restoration & Stewardship Policy (2012/2015) and Implementation Plan (2013) to reflect updated science, best management practices, additional park areas, and to include an analysis of past performance, and expected future actions. Periodic review and update of technical land management documents such as these are important to ensure goals and objectives are met and that our guiding documents utilize the best available science and management practices.

After presentation to the BOCC and extensive public outreach over the summer of 2025, the following updates have been made to these documents.

Forest Stewardship and Restoration Policy:

The updated policy document describes why stewardship and restoration activities are needed in Kitsap County Parks and how they would be accomplished. It outlines the purpose and need, goals and objectives, and high-level guidance for the program based on peer-reviewed scientific literature and accepted best practices.

This policy update maintains the primary goals and objectives of the original policy – maintain and enhance the ecological function and resiliency of the forests within parks – while also expanding upon them and add measurable criteria. It also tightens the focus of the policy to forest restoration and resiliency covering forest trees, vegetation, habitats, access roads, soils, riparian areas, wetlands, streams, and other aquatic resources. It *does not* address recreation, trails development, volunteer programming, education and outreach programming, etc. as these are beyond the scope of this document. This

updated policy was reviewed by external subject matter experts including representatives from tribes, county agencies, land trusts, and research institutions.

October 2025 updates:

- Changed language in Section Forest Stewardship and Restoration Goals and Objectives and throughout document to reflect change in funding structure.
- Added additional language to reflect invasive species and monitoring needs.
- Added information to more clearly explain planning process.
- In section describing activity types, additional information and references were added to explain treatment types.
- Section clarifying legacy tree retention was added.

Forest Stewardship and Restoration Strategic Plan:

The updated strategic plan document provides a high-level, system-wide plan to implement the updated Forest Stewardship and Restoration Policy for the next 10 years – 2025 through 2034. It is guided by the Society for Ecological Restoration (SER) restoration process, an internationally recognized method of planning and implementing ecosystem restoration and enhancement projects. Expected stewardship and restoration activities in the focus parks include assessment, monitoring, planning, permitting, implementation, and management are presented. Also included is an analysis of past financial performance and future sustainability of the program.

Expected stewardship and restoration activities during the next 10 years include:

- **Assessment and monitoring**: Collect information and data to describe and quantify forest conditions in each focus park. Assess conditions relative to desired conditions, based on the best available science and information, to determine departures from and/or progress toward the conditions.

- **Planning**: Following assessments and monitoring, update or develop forest stewardship and restoration plans for each focus park that provide treatment needs, proposed treatment specifications and schedules, and expected short- and long-term effects of the treatments. Desired conditions would be used to determine treatment needs and specifications. Public outreach and collaboration would provide information to the public about plans and allow public feedback.

- **Permitting, implementation, and management**: Following plan completion, acquire the necessary permits and implement management activities to address treatment needs. Management actions, primarily thinning and young stand thinning, would mechanically remove trees based on treatment specifications to help move the forest toward desired conditions. Currently foreseen management activities include approximately 1,445 acres of thinning, which would produce merchantable logs and provide revenue to offset costs, and approximately 655 acres of young stand thinning, which will require investments.

October 2025 Updates:

- Name was changed from implementation plan to strategic plan to provide clarity on the nature of the document.
- Language regarding new funding structure was added.
- Financial analysis was moved to an appendix.
- Language and figure regarding planning structure added for clarity.
- Language about project assessment, planning process added.

- Additional references to BMPs and studies added
- Additional language regarding monitoring and adaptive management schedule
- Comprehensive schedule of planning process for 10 years

Forest Stewardship and Restoration Policy

Forest Stewardship and Restoration Program, Kitsap County Parks

September~~October~~ 31~~30~~, 2025~~4~~

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Introduction

The Forest Stewardship and Restoration Program is an integral part of the Natural Resources Program within the Kitsap County Parks Department. A primary goal of the Natural Resource Program is to restore, protect, and manage Kitsap County Parks' natural resources for current and future generations using science-based approaches and solutions while collaborating and respecting all Kitsap County inhabitants and communities involved. Within this context, the Forest Stewardship and Restoration Program works to ensure the long-term health of the forests on Kitsap County parks by moving forest habitats, compositions, and structures toward desired conditions that include large trees and high-quality habitats. Stewardship actions and activities ensure that the forests on Kitsap County parks are maintained and enhanced so they are passed to future generations of Kitsap County residents in healthy conditions (*sensu* Helms 1998). Restoration is the process of altering the conditions of forests that have departed from desired conditions through the management by past landowners so they will more closely align with desired conditions in the future (*sensu* Helms 1998). Desired conditions are guided by historical conditions and tempered by past and expected future climate changes. Using both stewardship and restoration through adaptive management[1] over the coming years and decades, the Forest Stewardship and Restoration Program seeks to create conditions on Kitsap County parks that are resilient to current stressors and expected climate changes while providing high quality habitats that are refugia for wildlife and the people of Kitsap County.

This updated policy is a major revision and expansion of the current policy, (adopted in 2012, revised in 2015) to account for updated science, refocus the program on restoration, create a more wholistic and structured forest stewardship and restoration approach, and integrate expected climate changes. It is intended to replace the current policy. Maintained in the updated policy is the spirit of the goals and resource protections of the current policy including:

- Enhance natural[2] ecosystem complexity and health,
- Protect and enhance soil, water ~~quality, and~~quality, fish and wildlife habitat, and,
- Is biologically, socially, and ~~economically~~ operationally sustainable~~elf-sustaining~~.

These goals are enhanced and expanded within each area. For each goal, objectives are developed to provide specific, often measurable, elements for achieving each goal. Goals define overarching directions for the County's Forest Stewardship and Restoration program. Objectives are quantitively or qualitatively measurable elements used to assess forest conditions and track~~ing~~ forest development progress toward goals.

Beyond goals and objectives, policies for specific elements of forest restoration are presented that generally follow a conceptual framework based on restoration components presented by the

[1] "Adaptive management is a process of gathering and using scientific information to evaluate and improve forest management decisions and practices on the ground." Washington Forest Protection Association, https://www.wfpa.org/natural-resources-conservation/adaptive-management/ (last accessed 10/30/2024).
[2] Defined as: "vegetation where ecological processes primarily determine species and site characteristics". United States National Vegetation Classification. https://usnvc.org/about/plant-communities-and-vegetation-classification/natural-vegetation-classification/ (last accessed 10/22/2024)

Society of Ecological Restoration in the Standards of Practice to Guide Ecosystem Restoration[3]. These standards were developed to provide land managers with a solid framework for restoration projects that yield achievable, efficient, and scientifically sound results. The components of a restoration project as it applies to forestry in Kitsap County Parks are broadly broken down into the following components:

- **Forest and Resource Assessment**: Policies related to how assessments of forests and other resources would be conducted including:
    - the types of surveys and inventories used;
    - the types of data collected;
    - the development of reference and desired conditions used in assessments; and
    - the types of assessments conducted.
- **Stewardship and Restoration Planning and Permitting:** Policies related to how planning for stewardship and restoration in parks would be conducted and the types of permitting that would be done prior to stewardship and restoration activities including:
    - the development of park-specific stewardship and restoration plans, including public outreach and involvement as well as the expected plan lifespan;
    - the development of Forest Stewardship and Restoration Implementation Plans, including a 10-year strategic plan, 3-year tactical plan, with restoration and financial goals; and
    - the types of permitting that would be used for stewardship and restoration activities.
- **Stewardship and Restoration Implementation:** Policies related to stewardship and restoration activities and resource protection including:
    - the types of activities that would be used for forest restoration (including wildlife habitat), vegetation, road, and aquatic resources and
    - the types of protection that would be used for sensitive and/or culturally important resources including wildlife habitats, soils, aquatics, and plant species/communities.
- **Forest and Resource Monitoring and Evaluation:** Policies for how resources would be monitored and evaluated to determine how growth, development, and, possibly, stewardship and restoration activities are moving forests toward goals and objectives.

[3] Available at https://doi.org/10.4060/cc5223en (last accessed 09/02/2025)

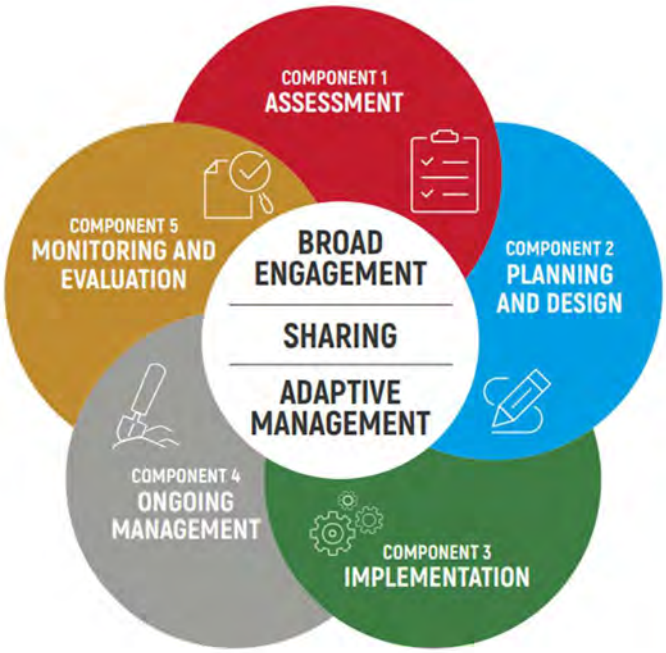

Figure 1: The conceptual framework for restoration that is guiding work by Kitsap County Parks. From SER: Standards of Practice to Guide Ecosystem Restoration, A contribution to the United Nations Decade on Ecosystem Restoration 2021–2030.

Policy Purpose

The Forest Stewardship and Restoration Policy guides forest stewardship, restoration, and related activities within Kitsap County Parks. Forest stewardship and restoration includes activities related to forest trees and vegetation, access roads that may be or have been used for forest management access, forest soils, wildlife habitats, and steams, wetlands, and other aquatic resources. This includes forest stewardship and restoration purpose and need, goals and objectives, forest and resource assessment activities, planning and assessment activities, permitting and implementation activities, and forest and resource monitoring activities.

This policy does not include recreation, trails and other recreation infrastructure development and maintenance, volunteers and their involvement in stewardship and restoration activities. These areas will be addressed in topic-specific policies.

Forest Stewardship and Restoration Purpose and Need

The purpose for forest stewardship and restoration activities by the Forest Stewardship and Restoration Program is to create forest conditions on Kitsap County Parks that:

- Have compositions and structures that facilitate the growth of large, vigorous[4] trees that are resilient to insects, diseases, expected climate change, and potential wildfires,

[4] "Vigorous" refers to tree growth.

- Provide high quality terrestrial, aquatic, and riparian habitats that have high ecological function and ecosystem services production,
- Maintain and enhance soil conditions and productivity.
- Allow opportunities for public and cultural foraging and gathering, and
- Are refugia for wildlife and humans in an increasingly developing and urbanizing environment.

Forest stewardship and restoration treatments are needed to create these conditions because:

- Forests on Kitsap County parks are primarily dominated by primarily small (10-15" average DBH) and medium (16-20" average DBH) with high to very high levels of inter-tree competition while lacking areas dominated by large (20-30" average DBH) and very large (>30" average DBH) trees[5] (Figure 2). This is the legacy of the industrial forest management by the previous owners of the park lands.
- Tree growth and vigor are reduced in high and very high competition forests where most trees near or approaching their maximum diameter given the number of trees in the forest.
- Tree health is reduced in high and very high competition forests where trees are stressed and increasingly susceptible, and succumbing~~,~~ to, mortality from insects, diseases, and competition for limited resources.
- Ecosystem services, including high quality wildlife habitats, carbon sequestration, vegetation diversity, foraging and gathering opportunities, etc., are reduced in high and very high competition forests with slow-growing small to medium diameter trees, little, if any, functional standing dead and downed wood, dense tree canopies, and suppressed understory vegetation.
- Ecological function is reduced, especially in previously harvested areas along streams and wetlands, in high and very high competition forests that lack functional large woody debris and trees that would become functional large woody debris, understory vegetation is suppressed and sparse, and deciduous trees are lacking.
- Forests with the above conditions may be so departed from native reference conditions they are unlikely to be able to achieve mature forest conditions without restoration action (Carey 2007).

Where needed and appropriate[6], Forest stewardship and restoration treatments would change forest conditions by:

- Removing trees to create additional room for lager trees and provide access to greater resources. This would include removing smaller trees to mimic competition-related mortality, groups of trees to mimic mortality from root diseases, and/or other treatments.

[5] Donato *et al.* (2020) and D. D~~o~~anato (personal communication, April 4, 2024) suggest that pre-contact forests in the western Cascade Range and Kitsap County were primarily dominated large and very large trees based on historical disturbance regimes.

[6] All areas with treatment need may not be treated. This would include, but not limited to, areas excluded from treatment by applicable regulations or where environmental or societal concerns outweigh the need for treatment.

- Creating openness in the canopy and/or canopy gaps to allow increased light to reach the forest floor to increase growth of existing understory trees and vegetation and/or to establish a new cohort of trees and understory vegetation.
- Creating standing dead and downed wood where they are lacking to improve wildlife habitat and ecosystem function.
- Removing trees and creating openness or openings in the canopy would:
    - Increase tree growth, vigor, and resilience to insects, diseases, and expected climate change.
    - Improve overall forest health by reducing competition, stress, and impacts from insects, diseases, and expected climate change.
    - Improve ecosystem services, including carbon sequestration, wildlife habitat, species diversity, and foraging and gathering opportunities and ecosystem function through increased tree growth and understory vegetation production.

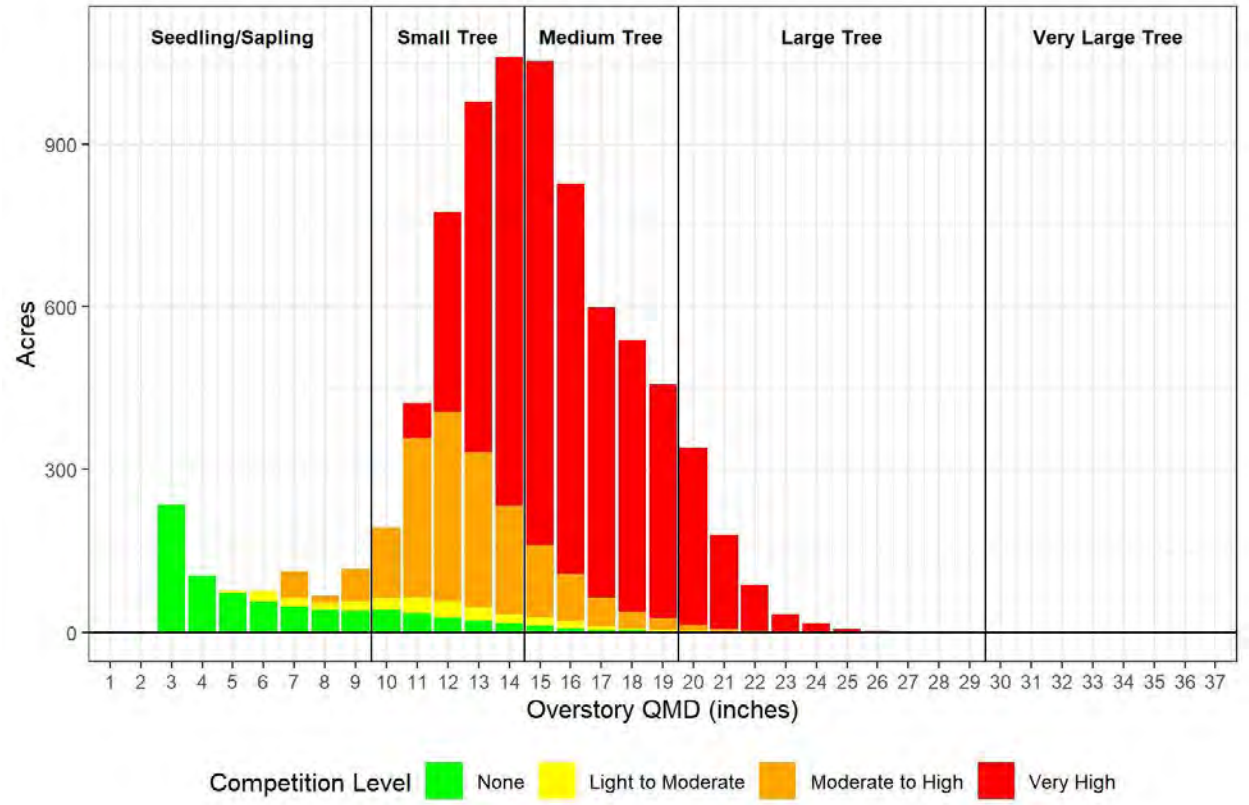

Figure 2: Acreages of parks by dominant tree sizes and competition levels. Dominant tree sizes are the average diameter of the largest 100 trees per acre. Competition levels are based on percentage of maximum stocking[7] as <25%, 25-35%, 35-55%, and >55% for None, Light to Moderate, Moderate to High, and Very High. Data for tree sizes, competition levels and maximum stocking from RS FRIS and other data from the Washinton Department of Natural Resources. Tree size classes, Seedling/Sapling, Small Tree, Medium Tree, Large Tree, and Very Large Tree based on O'Neil et al. *(2001).*

[7] "Stocking" refers to the number of trees in an area with the maximum varying based on the sizes and species of trees.

Forest Stewardship and Restoration Goals and Objectives

Forest stewardship and restoration goals and objectives define what the forest stewardship and restoration activities endeavor to accomplish in Kitsap County Parks. Goals define overarching directions for the County's Integrated Forest Stewardship program. Objectives are the ~~often~~ quantitively or qualitatively measurable elements used to assess forest conditions and track~~ing~~ forest development progress toward the goals. Objectives are grouped into three components: 1) forest structure and composition; 2) aquatic and soil resources; and 3) social, biological, and ~~financial~~ operational sustainability.

Forest Structure and Composition

Goals:

Restore, maintain, and enhance forest structure (numbers and sizes of trees) and composition (species and species types) that are consistent with site-appropriate vegetation types and plant associations, such as Chappell (2006). Structure and composition improvements directly relate to improvements in wildlife habitat because they are linked.

Objectives:

- Increase vigor and tree growth to facilitate resistance and resilience to, and reduce morality caused by, endemic expected climate change, forest insects, diseases, and other disturbance factors.
- Facilitate tree growth to speed the development of large diameter trees in younger forests. These will be future large trees, snags, and downed logs.
- Wherever possible, maintain and enhance existing large diameter trees.
- Where needed, encourage the establishment of additional cohorts of understory trees to increase forest structure and species diversity.
- Where needed, encourage the development of site-appropriate understory vegetation including wildlife forage and culturally important species.
- Where needed, restore species compositions and diversities consistent with site vegetation types and plant associations.
- Protect and enhance standing dead trees and downed logs where they exist.
- Create standing dead trees, downed logs, and other habitat ~~structure~~structures where they are lacking at numbers that are consistent with site-specific vegetation types, plant associations, and structural stages.
- Allow native insects and diseases to operate at endemic levels to sustain natural ecological processes unless trees impacted by these insects and diseases create hazards for life, property, or infrastructure.

Aquatic and Soil Resources

Goals:

Protect, maintain, and enhance aquatic resources to ensure clean water, shade, and other ecological functions for fish and other species that use streams, lakes, shorelines, and wetlands. Protect, maintain, and enhance soil resources to ensure long-term soil health, nutrition, stability, and productivity.

Objectives:

- Protect, enhance, and, to the extent possible, restore riparian and wetland buffers, including understory, streamside, and wetland vegetation and trees within the buffers, to ensure that ecological functions, such as shade, large woody debris, litter fall, water filtration, etc. are protected and enhanced.
- Whenever possible mark the extent of wetlands and floodplains during the winter to ensure that the full extent of these areas is used when delineating wetland and riparian buffers.
- Wherever possible, minimize soil disturbance, compaction, and erosion that may result from forest stewardship and restoration and other activities.
- Maintain roads used for timber hauling, emergency services access, and other activities to minimize sediment delivery to streams and wetlands.
- Maintain culverts, cross-drains, and other water crossing structures to minimize sediment delivery to streams and wetlands and ensure fish can pass roads in fish-bearing streams.
- Hydrologically stabilize disused roads to minimize the potential for sediment delivery to streams and wetlands.

Social, Biological, and ~~Financial~~ Operational Sustainability

Goals:

Ensure that forest stewardship and restoration activities are socially, biologically, and operationally ~~financially~~ sustainable over the life of the Forest Stewardship and Restoration Program.

Objectives:

- ~~Prioritize stewardship, restoration, maintenance, and enhancement over financial return while maximizing the financial return on harvested trees~~ meetand restoration objectives, ~~which are valuable County assets.~~
- Ensure that forest stewardship and restoration activities maintain and enhance forest growth, development, and ecosystem services production over short- and/or long-term timelines following the activities.
- Ensure that forest stewardship and restoration activities are responsive to expected climate change to maintain and facilitate resilient forests in the future.
- Partner with local tribes to identify culturally important fish, wildlife, and plant species, opportunities to protect and enhance these species, and opportunities for cultural gathering events.

- Engage the public, volunteers, and other stakeholders, where appropriate, in aspects of assessments, planning, implementation, monitoring, and evaluation.
- Prioritize stewardship, restoration, maintenance, and enhancement over financial return, while, when possible, recouping costs of implementing projects through the sale of trees harvested to meet ecological and restoration objectives, which are valuable County assets.
- Maintain Small Forest Landowner status under the Washington Forest Practices Rules by limiting harvest volume from forest stewardship and restoration activities to an average of no more than 2 million board feet (MMBF) per year across three-year periods.
- ~~Generate sufficient revenue from stewardship and restoration activities to fund pure-cost forest stewardship and restoration activities and Forest Stewardship and Restoration Program staff.~~

Forest and Resource Assessment

Kitsap County Parks will use the best available science, data, technology, and practices to assess current forest, vegetation, forest road, aquatic, soil resource conditions, wildlife use, ecosystem services production, and departures from reference model or desired conditions. Across Kitsap County parks, assessment units and forest stewardship and restoration areas will be delineated to help reduce complexity and make assessments tractable. Forest, vegetation, and other resource inventory data will be collected and compiled to describe current conditions both quantitatively and qualitatively. Reference conditions will be created to provide benchmarks for restoration and determining departures from these conditions. Assessment tools and techniques will be used to evaluate current conditions, describe, quantify, and value ecosystem services and potential environmental impacts of stewardship and restoration activities. Assessments will generally be performed on individual parks as a part of forest stewardship and restoration planning and monitoring. Elements of forest and resource assessment include but not limited to:

Assessment Unit and Stewardship and Restoration Area Delineation

Delineate areas within Kitsap County parks into assessment units and/or stewardship and restoration areas to facilitate assessment, planning, and implementation. These units and areas would have consistent forest structure and composition to reduce variability in planning and implementation protocols. Elements include but are not limited to:

- Use the best available data, information, and techniques in delineation.
- Update delineated units and areas as needed to account for changes related to forest stewardship and restoration activities, forest growth and development, forest disturbances, or other elements that change forest structures and compositions.

Forest and Resource Inventories

Use the best available data forest and resource inventory data to describe current forest and resource conditions. Forest and resource inventories quantify the conditions of forests, vegetation, and roads along with associated structures. These data provide the basis for assessments of forest and resource conditions. Where field collected data meeting quality

standards are available, they will be used to characterize current forest conditions. In areas where field collected data are not available, the best publicly available data would be used. Publicly available data may include but are not limited to Washington Department of Natural Resources (WADNR) Remotely Sensed Forest Resource Inventory System data[8], USDA Forest Service (USFS) Forest Inventory and Analysis (FIA) data[9], Washington Department of Fish and Wildlife (WDFW) fish passage data[10], WADNR Heritage Program data[4]. Elements of forest and resources inventories include but are not limited to:

Forest Inventories

Use statistically valid and consistent sampling methods, with known statistical properties and pre-specified accuracy (confidence) levels, to collect forest inventory data. These methods will provide unbiased information forest conditions that are accurate with known precision. Accuracy and precision of the forest inventory will ensure that the data are representative of actual forest conditions and repeatable for monitoring purposes. Elements include but are not limited to:

- Use the best available tools, techniques, and technologies, with known statistical properties, for data collection and compilation.
- Collect sufficiently detailed information to support assessments and stewardship and restoration planning.
- When publicly available data are used to describe forest conditions, corroborate or validate those conditions with actual conditions in park forests.

Regeneration Surveys

Use statistically valid sampling and data compilation techniques to determine seedling stocking and survival – both planted and naturally seeded trees – in regeneration harvest areas. These areas are within the Pope Resources/Rayonier timber reserve Port Gamble timber and created openings in restoration areas. Elements include but are not limited to:

- Use the best available tools, techniques, and technologies, with known statistical properties, for data collection and compilation.
- Collect sufficiently detailed information to support assessments and stewardship and restoration planning.

Vegetation Inventories

Use the best available techniques, data, and technologies to collect vegetation data within Kitsap County parks. Data and information collected in this manner will provide the most accurate representation of the presence, composition, and extent of native and invasive species to guide forest stewardship and restoration actions. Vegetation classification helps identify plant

[8] Available at https://geo.wa.gov/maps/wadnr::raster-all-rs-fris-rasters/about (last accessed 5/28/2024)
[9] Available at https://www.fs.usda.gov/research/products/dataandtools/tools/fia-datamart (last accessed 5/28/2024)
[10] Available at https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html (last accessed 5/28/2024)
[4] Available at https://www.dnr.wa.gov/NHPdataexplorer (last accessed 7/22/2024)

communities that may be locally or globally rare, areas of high quality, and/or forest with old growth characteristics for additional protection consideration. Elements include but are not limited to:

- Mapping and assessment of vegetation communities using the U.S. National Vegetation Classification (USNVC)[11].
- Vegetation plots ~~will be~~ collected using the Peet plots (Peet et al 1998) to be consistent with USNVC methodologies.
- Identify areas with old growth characteristics using the methods outlined in VanPelt (2007).
- Identify areas with invasive plant species concerns.
- Methodologies and assessment tools may change as new best practices become available.

Road, Water Crossing, and Drainage Structure Inventories

Use the best available methods, techniques, and technologies to inventory the locations and conditions of roads – both those used for vehicular access and timber hauling and those that are being used as trails – and associated water crossings, culverts, cross-drains, and other drainage structures. Elements include but are not limited to:

- Collect and store spatially explicit road, water crossing and drainage structure data and information in electronic formats that are compatible with systems such as GPS (geographic position system) and GIS (geographic information systems)
- Collect sufficiently detailed information to support assessment, planning, and monitoring, which may include by not limited to:
    - Road surface type and condition
    - Current road use
    - Roadside vegetation conditions
    - Road erosion and drainage issues
    - Type, size, and condition of water crossing structures, culverts, cross-drains, other drainage structures, and/or
    - Other pertinent, resource-specific information as necessary.

Aquatic Resource Inventories

Use the best available data and techniques to describe and quantify the types and extents of streams, wetlands, and other aquatic resources within Kitsap County parks. Streams, wetlands, and other aquatic resources are important habitats for many fish and wildlife species, and provide clean water to areas within the parks, Kitsap County, Puget Sound and Hood Canal. These resources are also extensive, scattered throughout the County, and difficult to completely inventory. Elements of aquatic resource inventories include but are not limited to:

- Ensure the most extensive coverage of aquatic resources by using the best available data for resource location and type classification. This may include watercourse and waterbody

[11] Available at https://usnvc.org/ (last accessed 07/22/24)

data from the Washington Department of Natural Resources[12], critical areas data from Kitsap County[13], Wild Fish Conservancy survey data[14], and/or other data.

- Improve the accuracy of aquatic resource inventory data by opportunistically locating and evaluating aquatic resources within forest stewardship and restoration areas. This may include but may not be limited to:
    - Confirming or updating the location, extent, and type of mapped aquatic resources then provide updates to the owners of the mapped data.
    - Delineating, mapping, and typing unmapped aquatic resources and providing the information to agencies that own and manage aquatic resource data.

Soil Surveys

Use the best available data for soils within Kitsap County parks. Soils play an important role in forests' ecological process including potential tree growth, vegetation composition, water availability, and hydrology. Potential adverse impact of restoration activities, such as erosion and compaction, are also related to soil properties and landform conditions, such as slope steepness or shape. Soil survey data sources include the USDA Natural Resources Conservation Service[15] and Kitsap County GIS data[16]. Landform conditions data include the WADNR Westside Slope Stability Model layer[17]

Wildlife Use

Use the best available science, data, techniques, and technologies to help determine what species or types of wildlife are using the forests on, or near, Kitsap County parks. The types of wildlife that are using, or could use, these forests will help guide wildlife habitat enhancement and development. This information will also help guide any operational limitations during restoration activities to minimize disturbances to sensitive species. Information sources for wildlife use include but are not limited to the Washington Department of Fish and Wildlife Priority Habitats and Species List[18] and threatened and endangered species list[19] as well as the Washingtons State Wildlife Action Plan[20].

[12] Available online at https://data-wadnr.opendata.arcgis.com/search?q=hydrography. (Last accessed 5/31/2024)
[13] Available online at https://kitsap-od-kitcowa.hub.arcgis.com/ (Last accessed 5/31/2024)
[14] Available online at https://wildfish.maps.arcgis.com/home/item.html?id=435c57ba568b4adba24b06030b0dd91b (Last accessed 5/31/2024)
[15] Available online at https://websoilsurvey.nrcs.usda.gov/app/. (Last accessed 6/3/2024)
[16] Available online at https://kitsap-odkitcowa.hub.arcgis.com/datasets/3220cc4dbb03443fbce65a1b5813648b_0/explore (Last accessed 6/3/2024)
[17] Available online at https://data-wadnr.opendata.arcgis.com/maps/3a8ade37a63d45f89406e9cf788bfbe3/explore (Last accessed 7/23/2024)
[18] Available online at https://wdfw.wa.gov/species-habitats/at-risk/phs/list (last accessed 10/31/2024)
[19] Available online at https://wdfw.wa.gov/species-habitats/at-risk/listed (last accessed 10/31/2024)
[20] Available online at https://wdfw.wa.gov/species-habitats/at-risk/swap (last accessed 10/31/2024)

Reference Conditions

Use the best available science, data, and information to create reference conditions to guide forest stewardship and restoration assessments, planning, activities, and monitoring. Forests in Kitsap County are unique given their location within the Puget Sound Trough, threats from extensive development, and relative lack of US Forest Service ownership resulting in comparatively little forest stewardship and restoration research within the county. Elements include but are not limited to:

- Wherever possible prioritize studies and data from Kitsap County and similar forest ecosystems, such as other areas within the Puget Trough and areas within the eastern and northeastern portions of the Olympic Peninsula.
- Ensure that reference conditions models include measures and information that are related to, and comparable with, the data collected and compiled in forest, vegetation, and other resource inventories.
- Account for expected future climate conditions in reference conditions to facilitate resilient future forest conditions.

Assessments

Use the best available open, transparent, rigorous, and repeatable assessment tools and techniques to evaluate, describe, and value forest, vegetation, other resources, and ecosystem services and to make comparisons with reference model conditions and other desired conditions. Performing assessments in this way will help ensure public trust in the processes used in planning, evaluating, and monitoring forest and forest stewardship and restoration planning. Elements include but are not limited to:

- Wherever possible, use standardized, best available assessment models, tools, techniques, and protocols. Examples include but are not limited to:
    - The USFS Forest Vegetation Simulator (FVS) forest growth and yield model and associated extensions to virtually grow forest and apply tree-related forest stewardship and restoration actions.[21]
    - The Fire and Fuels Extension for FVS (Rebain *et al.* 2010) to assess carbon sequestration, standing dead and downed wood, and wildfire hazards.
    - The National Volume Estimator Library to estimate tree and harvested log volumes, biomass, and sequestered carbon.[22]
    - Carbon estimates such as Hoover *et al*. (2023) carbon sequestration and cycling in different forest and product components.
    - Reference conditions for standing dead and downed wood using the DecAID Advisor (Mellen-McLean *et al.* 2017).

[21] FVS and associated documents are publicly available online at https://www.fs.usda.gov/fvs/ (Last accessed 5/31/2024)

[22] The National Volume Estimator Library and associated software and documentation are available online at https://www.fs.usda.gov/forestmanagement/products/measurement/volume/nvel/index.php (last accessed 8/19.2024)

- Document assessments and assumptions to ensure repeatability.

Stewardship and Restoration Planning and Permitting

Kitsap County Parks will maintain current plans ~~, including a program-wide implementation plan and park-specific stewardship and restoration plans,~~ and acquire the necessary permits from appropriate agencies prior to project implementation. Planning and permitting for the Forest Stewardship and Restoration Program falls broadly into three categories:

- **Forest Stewardship and Restoration Program Strategic~~Implementation~~ Planning:** ~~Program implementation~~Strategic planning compiles information from park plans and other sources into long-term (10+ years) and short-term (1-3 years) action plans to determine the extent of work that will be needed to implement the Forest Stewardship and Restoration Policy, estimates of revenues and costs, and expected effects of forest stewardship and restoration planning.~~,~~
- **Park~~-specific~~ Stewardship and Restoration Plans:** Park-specific plans to assess the conditions, determine more specific treatment needs, prescribe stewardship and restoration actions, create a general schedule for actions, and evaluate expected impacts of the actions within the park.
- **Forest Stewardship and Restoration Project Planning~~Activity~~ & Permitting:** Acquiring permits for forest stewardship and restoration activities through appropriate regulatory agencies will ensure that the actions comply with all applicable regulations to minimize adverse effects on resources and the environment.

Additional planning or permitting steps may be required as requirements and best management practices change.

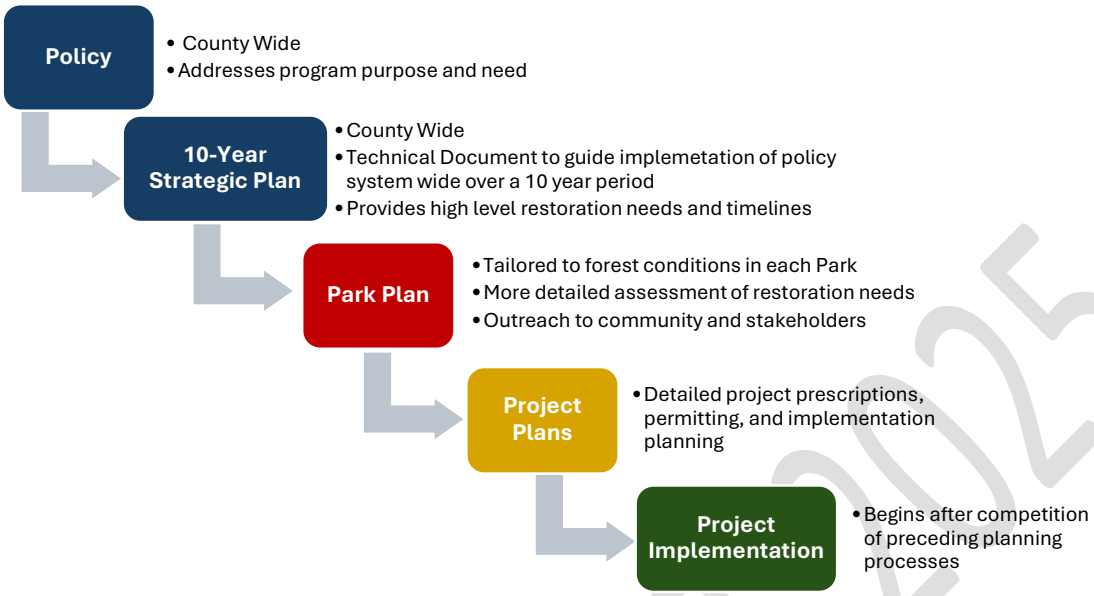

Figure 3 Planning Structure for Forest Stewardship & Restoration

Forest Stewardship and Restoration Program ~~Implementation~~ Strategic Planning

Kitsap County Parks Forest Stewardship and Restoration Program will perform ~~implementation~~ strategic planning at the program level to ensure that stewardship and restoration needs across parks are met and that the program is ~~socially,~~ biologically, socially, and ~~economically~~ operationally sustainable. Planning will look across all parks that may need restoration using two different time horizons: 10 years for strategic planning; and 1-3 years for tactical planning.

Ten-year strategic planning will show the sequence of projects that are likely to occur during this time. Information from the strategic plan would identify areas that are expected to have stewardship and restoration activities, expected labor needs, costs, and revenues associated with the activities, and expected effects of the activities. Planning over a 10-year horizon will also help ensure that the labor needs, costs, and revenues remain relatively consistent.

Tactical planning over a 1–3-year period[23] highlights specific projects that would be planned, permitted and, if determined to be ecologically necessary, implemented during this time. Planning and permitting these projects may include pre-activity resource inventory collection, performing project-specific financial analyses, and applying for all necessary project permits.

[23] This planning horizon was chosen because it coincides with the life of a Washington Department of Natural Resources Forest Practices Application – a primary vehicle for forest stewardship and restoration activities.

Forest Stewardship and Restoration Strategic~~Implementation~~ Planning would be ~~updated~~ assessed annually to maintain a queue of projects and account for changes in needs, markets, costs, budgets, and project completion and/or delays. Annual updates provide the opportunity to report what was accomplished in the preceding year and how it compared to what was planned. It is also an opportunity to update assumptions used in analyses to ensure that they are current and to add additional forest stewardship and restoration actions and projects to the 10-year strategic plan.

Park ~~Specific~~ Stewardship and Restoration Planning

Kitsap County will perform park-specific stewardship and restoration planning ensures that stewardship and restorations needs, actions, and implementation timelines are determined before actions are implemented. Park-specific stewardship and restoration plans will integrate information that may include, but is not limited to:

- Historical information about the park,
- Information and data about current forest conditions and departures from desired conditions,
- Stewardship and restoration needs and actions to address the needs to move forests toward desired conditions,
- Assessment of competing needs (wildlife, wetlands, community feedback, etc.)
- Expected short- and long-term effects of the stewardship and restoration actions.

Park-specific stewardship and restoration plans provide the basis for the stewardship and restoration that take place in each park. The process of creating these plans integrates forest, vegetation, and other resource inventory data and assessments to describe conditions within the park, differences from reference or desired conditions, and the actions needed to address these differences that would put the park on a trajectory to move closer to the reference and desired conditions. Outreach and collaboration with the public, tribes, volunteers, and other interested parties will help facilitate support and social license to ensure that plans would achieve their desired outcomes.

Planning takes place at a specific point in time with inventory data representing conditions at that time. Over time, as forest continue to develop and change, stewardship and restoration activities alter forest structure and composition. In addition, other resources, especially roads, ~~and~~ invasive species, or other environmental stressors, may change, as well as~~and~~ the wants and needs of the public may change. Plans must be updated regularly, typically every 10-years, to incorporate these changes. Elements of park stewardship and restoration planning may include, but are not limited to:

Park History Compilation

Use the best available historical information to provide context for the current conditions in the park to help understand how the conditions developed. Sources may include historical

aerial photographs[24], past survey and harvest records, past planning documents, presence of stumps, skid trails, roads, culverts, etc., in the park.

Forest Stewardship and Restoration Needs Determination

Utilize the results from park assessments and the best available science and information determine the scope and scale of needs for restoration actions for each park. Explain why and when the actions are, or are not, needed.

Forest Stewardship and Restoration Actions Prescriptions, Specifications and Timelines

Prescribe and specify stewardship and restoration actions along with approximate timelines to address treatment needs for each assessment unit or stewardship and restoration area. This would include the types of actions that are needed; what the actions would target for modification, removal, addition, or replacement; expected outcomes; and how those outcomes will move the forests towards reference or desired conditions. This might also include no actions for units or areas that do not have treatment needs or where there are other resource-specific or public concerns that outweigh the need for actions.

Forest Stewardship and Restoration Action Effects Evaluation

Evaluate the proposed activities and how they may change and affect conditions in the park over the short-term (up to 30 years). Where possible, use models or other tools that may provide objective short- and long-term estimates. If models are not available use the best available science tempered by professional experience and knowledge of Kitsap County forests. Results of the evaluation will demonstrate how the stewardship and restoration actions are expected to move the park closer to reference and desired conditions over the life of the plan and through a foreseeable future when further stewardship and restoration actions may be needed.

Draft Park Forest Stewardship and Restoration Plan

Compile information from park assessments and planning steps into a draft park forest stewardship and restoration plan. This will be the guiding document for forest stewardship and restoration activities for the 10-year life of the plan or until plan is updated. This plan document should include, at a minimum:

- A narrative about the park including its history, as appropriate, to provide context for the park plan.
- A summary of forest stewardship and restoration goals for the park.
- Descriptions of reference and desired conditions for the forest, vegetation, and other resources in the park.
- Descriptions of current conditions across the park.

[24] Historical aerial photography from the 1950s through the 1980s available from the US Geological Survey through Earth Explorer (https://earthexplorer.usgs.gov/, last accessed 5/31/2024) and from the 1990s to present through Google Earth Pro (freely available at https://www.google.com/earth/about/versions/#download-pro, last accessed 5/31/2024)

- Statements of treatment needs across the park for each resource.
- Prescriptions, specifications, and maps for each stewardship and restoration action and descriptions of how the action helps meet goals and objectives.
- A general schedule for stewardship and restoration actions.
- Evaluations of the expected short- and long-term effects of stewardship and restoration actions and how they would move forests toward desired conditions and help meet park and program goals and objectives.
- Monitoring plan to track progress towards restoration goals and adaptive management needs.

Outreach and Collaboration

Provide information and solicit comments about park stewardship and restoration plans through outreach and collaboration with the public, tribes, and other interested parties, as appropriate. Providing information about the park stewardship plans will help ensure that the public understands what types of stewardship and restoration activities are planned for the park along with expected impacts and benefits. Encourage input and collaboration by soliciting comments about the plans and using the comments, as needed, to refine plans. Public comments will help ensure that park plans provide expected benefits that align with program and park goals and objectives. Together this will help create the social license for stewardship and restoration activities in parks. Elements of public outreach and collaboration may include, but are not limited to:

- Ensure the public, tribes, and other interested parties understand the park stewardship and restoration plan actions and expected impacts through outreach and collaboration. This may include, by not limited to, direct communication, town hall meetings, field tours with groups in the parks, and other topic-oriented meetings.
- Facilitate outreach using a variety of media such as web sites, social media, signage, and print media.

Forest Stewardship and Restoration Plan Updates

Ensure that forest stewardship and restoration plans for Kitsap County Parks are representative of and consistent with current/emerging conditions. Updating and revising forest stewardship and restoration plans provides the opportunity to reassess conditions in the parks and re-engage the public. Assessing updated inventory data will help show whether conditions are developing as expected and whether additional actions are needed. Public outreach and comment solicitation may provide insights into new public wants and desires for their parks that may help refine the updated plan when they align with goals and objectives. A 10-year update interval is expected to sufficient to account for changes in the forest and with public wants, needs, and perceptions.

Forest Stewardship and Restoration Project Planning and Activity Permitting

Ensure that resources are protected, and environmental impacts are minimized by acquiring the legally required permits for forest stewardship and restoration activities. When appropriate coordinate with tribes and agencies about planned stewardship and restoration activities prior to submitting permits to facilitate necessary permitting. Activities that remove trees or occur near or within typed[25] streams or wetlands, in sensitive species habitat, or other critical areas may require permits from the Washington Department of Natural Resources[26], Washington Department of Fish and Wildlife[27], and/or Kitsap Department of Community Development. Where necessary use Washington State Environmental Policy Act (SEPA) checklists[28] to disclose potential environmental impacts.

Class IV-Special Forest Practices Applications[29], which requires a SEPA checklist, will be used for all activities that remove trees and/or maintain, improve, build, or remove forest roads for timber hauling. Kitsap County Timber Harvest permits may be used in limited situations where small areas of parks may be converted to non-forest uses, such as parking lots and other infrastructure to avoid the 6-year development moratorium[30].

Stewardship and Restoration Implementation

Use the most appropriate activity types and associated equipment to implement stewardship and restoration activities to meet activity goals and minimize adverse impacts. Forest stewardship and restoration activity implementation involves removing, adding or modifying resource elements, which may include trees, native vegetation, invasive species, roads, water crossing structures, etc., to achieve desired outcomes and help move conditions toward reference or desired conditions. Equipment, techniques, tools, materials and other aspects of implementation vary depending on the type of resource. Actions in forest and road resources often

[25] "Typed" streams and wetlands are those that are classified under a system such as the Washington State Forest Practices Rules (WAC 222-16-030 Water typing system (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-030, last accessed 6/3/2024) , WAC 222-16-031 Interim water typing system (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-031, last accessed 6/3/2024), and WAC 222-16-035 Wetland typing system (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-035, last accessed 6/3/2024)

[26] See WAC 222-16-050 Classes of forest practices (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-050, last accessed 6/3/2024) for the types or forest stewardship and restoration activities that require WADNR permitting.

[27] See WAC 220-60 (https://app.leg.wa.gov/wac/default.aspx?cite=220-660, last accessed 6/3/2024) for information about projects in or near typed water that may require WDFW permitting

[28] See https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance (last accessed 6/3/2024) for information about SEPA checklists

[29] See WAC 222-15-050 (1) (https://app.leg.wa.gov/wac/default.aspx?cite=222-16-050, last accessed 10/29.2024)

[30] See Kitsap County Code Chapter 18.16 Timber Harvest (https://www.codepublishing.com/WA/KitsapCounty/html/Kitsap18/Kitsap1816.html, last accessed 6/3/2024) for details.

use heavy equipment to harvest trees or to maintain, improve, build or remove roads and water crossing structures. Actions in native vegetation and invasive species management may use equipment or people with hand tools to plant or remove vegetation depending on need. Resource protection measures will be used to avoid, minimize, or mitigate these potential impacts for all treatment types.

Activity Types

Forest Resources

Use silvicultural treatments[31] that are responsive to the forest conditions and needs and employ appropriate equipment for the terrain where treatments are applied to move forests toward reference and desired conditions. Ensure consistency and avoid confusion about treatments and actions by using the terminology of Society of American Foresters Silviculture Instructors Sub-group (1994). Explicitly state objectives for treatments and actions in silvicultural prescriptions that specify how treatments and actions will be applied and what is expected from the treatments.

Silvicultural treatments and activities imitate natural processes and maintain site productivity by modifying stand structure – the shapes, sizes, and types of trees; stand composition – species of trees; stand density – number of trees; and ages of trees (Aston & Kelty 2018) by removing and/or planting trees. The types of forest resources activities that would be used on Kitsap County parks are consistent with principles of Ecological Silviculture (Palik et al. 2020), Ecological Forest Management (Franklin *et al.* 2018), and Active Intentional Management (Carey 2007). These activities are also consistent with the ecological harvesting allowed in structurally complex and older forests under Commissioner's Order Number 202516 (Upthegrove 2025). Treatment types may include but are not limited to:

Legacy Retention and Enhancement

Retain forest legacy features – large, old trees, large, downed logs, large stumps – that are present within Kitsap County parks. When legacy trees occur within stewardship and restoration areas remove competing trees to enhance the potential for long-term maintenance of these trees. Large, old trees, large, downed logs, and large stumps are important biological legacies from previous forests that provide important habitat elements in the forest. Because they are becoming increasingly rare with time, these would be retained within Kitsap County parks. When stewardship and restoration activities occur around legacy trees nearby trees that are competing for resources would be removed to enhance the resources available to these trees. This will help ensure that these important trees are maintained within Kitsap County parks in the long-term, especially with expected climate change.

[31]Silvicultural treatments are developed using principles of silviculture, an applied sub-discipline of forest ecology (Ashton and Kelty 2018), to address treatment needs.

Thinning

Use thinning when the objective of stewardship and restoration activities is to increase the growth and vigor of the trees remaining after thinning and/or to facilitate the growth and development of understory trees and vegetation. Thinning would remove a portion of the trees in an area to redistribute resources to remaining trees and/or bring the number of trees in line with available resources, especially water, on a site. Species compositions may also be modified through thinning by targeting species for removal or retention to influence diversity and forest health.

Thinning removes excess trees that contribute to overcrowding and decreased ecological function within a stand. ~~that produce merchantable material that may be sold to local sawmills or other facilities to offsets cost and potentially return revenue to the County.~~ This type of treatment may also be called ecologically based thinning (Franklin *et al.* 2018), restoration thinning (Dwyer *et al.* 2010), variable density thinning (VTD, Carey 2003, Ashton and Kelty 2018, Brodie and Harrington 2020), or commercial[32] thinning (Ashton and Kelty 2018, Helms 1998, Palik et al. 2020, USDA 2014). Thinning would be used where competition between trees has reduced tree growth resulting in stressed trees that may be susceptible to insects, disease, and other mortality causes. The intent of thinning is to generally mimic ecological processes that result in tree mortality, such as competition, insects, and diseases, though trees may be removed rather than left on-site. Following thinning the remaining trees would have increased access to resources, including light, water, nutrients, and space, that would allow the trees to increase their growth, vigor, resilience to insects, disease, and other mortality causes. An important aspect of thinning is that regeneration, though it may happen spontaneously through seeding, is an expected result of thinning.

Thinning may also be used where there is an established cohort of smaller shade-tolerant trees or understory vegetation that would benefit from additional light. Growth of the trees in the shade tolerant cohort may be limited by a dense overstory. Understory vegetation may be sparse and produce little, if any, fruit for wildlife forage or for human gathering. Thinning would provide additional light to the forest floor to facilitate the shade-tolerant tree and understory vegetation reestablishment, growth, and production.

Spatial variability within stands may be increased through thinning where conditions demonstrate the need. Tree spacing after treatment may vary across the stand where increased spatial variability is needed. This is like variable density thinning except open areas, referred to as “gaps”, may not be used. When gaps are used, they would be uneven-aged regeneration patches embedded in a matrix of thinning. Some thinning operations produce merchantable material that may be sold to local sawmills or other facilities to offsets cost and potentially return revenue to the County.

Young stand thinning will remove trees in young stands to reduce the number of trees and facilitate the growth of the remaining trees. This is also known as precommercial[33] thinning (Ashton

[32] ”Commercial” generally refers to tree size – trees that are sufficiently large to yield a merchantable log. This is typically greater than 7-8 inches diameter at breast height (4.5 feet above the ground).
[33] ”~~Preommercial~~Precommercial” generally refers to tree size – trees that are too small to yield a merchantable log. This is typically under 7-8 inches diameter at breast height (4.5 feet above the ground).

and Kelty 2018, Helms 1998, Palik et al. 2020) or stand improvement (USDA 2014). Trees removed in young stand thinning are generally too small to produce merchantable volume resulting in a treatment that produces no revenue to offset harvest costs. This treatment is an investment in these young stands to facilitate development toward reference and desired conditions.

Uneven-aged Regeneration Harvesting

Use uneven-aged regeneration harvesting methods (Ashton and Kelty 2018, USDA 2014, Palik et al. 2020) when the objective of stewardship and restoration actions is to increase species diversity, vertical canopy diversity, and horizontal spatial diversity through the establishment of a new cohort of trees. Using uneven-aged methods, gaps are created in the canopy to allow light to reach the forest floor to facilitate regeneration. Regeneration may happen through seeding from remaining trees or by planting trees. These canopy gaps also increase the spatial diversity in the forest to help reduce the potential for disease spread and provide habitat complexity for wildlife. Uneven-aged methods include group-selection with reserves, and single tree selection.

Group-selection with reserves removed most of the trees in an area to allow the establishment of new trees while leaving some trees (approximately 3-10 trees per acre) to provide habitat, seed sources, and/or other benefits. These areas may range from 1 – 3 acres (200 – 350 feet wide) in size depending on treatment objectives, the type of treatment used, and the expected regeneration species. This type of treatment may be used where trees may not respond well to thinning, such as areas with tall, skinny trees with small crowns that would be at risk of falling (windthrow) or breaking (wind snap) following thinning. Group-selection with reserves would be used in combination with thinning to increase spatial diversity.

Single-tree selection removes individual trees throughout a stand to create canopy gaps and spatial variability in the stand to facilitate the growth of remaining trees and to establish new trees within the stand. This type of treatment would be used where there are many healthy trees that would respond well to reduced stand densities but lack vertical canopy diversity and spatial variability.

Planting

Planting would be used to establish new trees following uneven-aged regeneration harvesting, when required under the Washington Forest Practices Rules[34], or when the objective is to establish species that would help move forests toward desired conditions. Trees would be planted during the winter when the trees are dormant with seedlings being sourced from nurseries that have seed sources that are compatible with Kitsap County.

Species whose current ranges do not overlap with Kitsap County, such as redwoods, giant sequoias, non-native oaks, etc. would not be planted as part of forest stewardship and restoration actions. However, southern genotypes of extant species or species from outside Kitsap County may be planted as part of limited species migration experiments and/or test plots in horticultural settings.

[34] See WAC 222-34 (https://app.leg.wa.gov/WAC/default.aspx?cite=222-34-010, last accessed 6/3/2024) for specifics on reforestation requirements.

Wildlife Habitat Enhancement

Create dead wood structures, including standing dead and downed wood, to enhance wildlife habitat where they are non-existent, limited, or lacking. Dead wood is an important habitat feature for many wildlife species (Sullivan *et al.* 2021). Where standing dead and downed wood are lacking or limited, create standing dead trees (snags), leave logs on the ground, and/or construct log piles and/or habitat piles to enhance wildlife habitat. Elements of habitat enhancement may include but are not limited to:

- Use logs with little merchantable value, including defective trees and defective or small logs that would only be sold as pulp logs, to construct habitat enhancement features.
- Whenever possible, create habitat structures during thinning operations when equipment is onsite following best available science for structure configuration, size, and location.
- Ensure that overall standing dead and downed wood amounts are comparable with recommendations, such as the USDA Forest Service's DecAID Advisor system (Mellen-McLean *et al.* 2017)

Silvicultural Prescriptions

Use detailed silvicultural prescriptions to specify treatment types; trees targeted for removal and/or retention; and expected post-treatment conditions following treatments. Silvicultural prescriptions specify the suite of planned silvicultural treatments used to meet stand treatment needs and help move conditions toward reference or desired conditions (Helms 1998). The prescriptions may include one or more treatments including thinning, young stand thinning, uneven-aged regeneration, and/or planting to meet stated stand structure, composition and density goals and objectives for the stand. Expected conditions following the treatments and actions in the prescription would put the stand on a trajectory to develop toward desired conditions. In some cases, post-treatment conditions may move away from desired conditions in the short-term to better meet desired conditions in the long-term.

Vegetation Resources

Use approved, appropriate, industry-standard, methods, materials and equipment to implement actions related to native, non-native, and invasive vegetation resources. Vegetation resource actions generally establish, enhance, remove, and/or modify understory vegetation through planting, cutting, pulling, pruning, trimming, or other methods. Actions generally apply to two vegetation types, native species that would be planted or enhanced and invasive species that are adversely affecting native species and vegetation communities. These actions may include but are not limited to:

- Development of restoration plans if native vegetation deviates from desired conditions defined, in part, by US National Vegetation Classification communities (USNVC 2024).
- Planting or seeding of native species as appropriate to achieve desired conditions and/or for cultural use by local tribes.
- Removal or treatment of invasive or non-native species using an integrated pest management approach utilizing the best available sciences and methods.

Road and Aquatic Resources

Use approved, appropriate, industry-standard methods, materials, and equipment to implement actions related to roads and aquatic resources within Kitsap County parks. These actions would be designed to minimize detrimental impacts from roads and their use, including sediment production and delivery, to aquatic resources and associated species. Actions may include but are not limited to:

- Road maintenance and betterment including grading, surfacing, brushing, and ditching. This may include converting trails on former roadbeds back to roads used for hauling or emergency vehicle access.
- Road decommissioning or abandonment including hydrologic stabilization.
- Road removal.
- Road conversion to trail.
- Culvert, cross-drain, and water crossing structure maintenance, removal, improvement, or replacement.

Resource Protection and Enhancement

Protect and enhance aquatic, wildlife, vegetation, and other resources by applying and adhering to resource-specific rules and/or site-specific protection and/or enhancement that may be needed. Elements of resource protection and enhancement include but are not limited to:

- Protect and enhance aquatic resources by applying and adhering to riparian area and wetland buffers following the Washington Forest Practices Rules, which include minimum buffer widths and activity restrictions. Where buffers are overly dense apply thinning treatments as allowed under the Washington Forest Practices Rules to facilitate tree growth and enhance riparian function.
- Locate and, where needed, buffer wildlife resources, especially large trees with structurally complex canopy habitat features, large snags (standing dead trees) and large downed wood to minimize impacts from treatment activities.
- Locate large and old trees, which are relatively rare within Kitsap County parks. These trees would be identified using the criteria from Van Pelt (2007) or other comparable criteria applicable to Kitsap County. Buffer large trees where they have little competition to minimize impacts from treatments. Enhance large and old trees within dense stands by removing competing trees within a pre-specified distance to increase available resources and resiliency to expected climate change, insects, and diseases.
- Protect sensitive, unique, and/or rare species, which may include species listed as species of concern, threatened, or endangered, and their habitats using species specific management practices to minimize impacts.

Forest and Resource Monitoring and Evaluation

Perform forest and resource monitoring and evaluation during and/or following treatments and actions to ensure objectives and performance standards were met and at regular

intervals to ensure that forests and resources are developing toward reference or desired conditions. Monitoring methods and intervals would be resource specific and long enough to detect changes but short enough to inform changes to actions and treatments that may be needed.

Forest and resource monitoring and evaluation will involve data collection and assessments that are like those used in forest and resource assessments. It may include forest inventory; vegetation inventory; road, water crossing and/or drainage structure inventory; and/or aquatic resources inventory. All data will be evaluated relative to treatment and action objectives or reference or desired conditions and measurable performance standards. If results of monitoring, while treatments and actions are occurring, find that treatments and actions, or their implementation, are not meeting objectives the treatments, actions, and/or implementation process may be modified to better meet objectives. If periodic monitoring finds that conditions are not developing toward reference or desired conditions, stewardship and restoration plans may be updated with proposed modifications that move the forests or resources toward reference or desired conditions.

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Forest Stewardship and Restoration Policy

Forest Stewardship and Restoration Program, Kitsap County Parks

September 30, 2025

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Introduction

The Forest Stewardship and Restoration Program is an integral part of the Natural Resources Program within the Kitsap County Parks Department. A primary goal of the Natural Resource Program is to restore, protect, and manage Kitsap County Parks' natural resources for current and future generations using science-based approaches and solutions while collaborating and respecting all Kitsap County inhabitants and communities involved. Within this context, the Forest Stewardship and Restoration Program works to ensure the long-term health of the forests on Kitsap County parks by moving forest habitats, compositions, and structures toward desired conditions that include large trees and high-quality habitats. Stewardship actions and activities ensure that the forests on Kitsap County parks are maintained and enhanced so they are passed to future generations of Kitsap County residents in healthy conditions (*sensu* Helms 1998). Restoration is the process of altering the conditions of forests that have departed from desired conditions through the management by past landowners so they will more closely align with desired conditions in the future (*sensu* Helms 1998). Desired conditions are guided by historical conditions and tempered by past and expected future climate changes. Using both stewardship and restoration through adaptive management[1] over the coming years and decades, the Forest Stewardship and Restoration Program seeks to create conditions on Kitsap County parks that are resilient to current stressors and expected climate changes while providing high quality habitats that are refugia for wildlife and the people of Kitsap County.

This updated policy is a major revision and expansion of the current policy, (adopted in 2012, revised in 2015) to account for updated science, refocus the program on restoration, create a more wholistic and structured forest stewardship and restoration approach, and integrate expected climate changes. It is intended to replace the current policy. Maintained in the updated policy is the spirit of the goals and resource protections of the current policy including:

- Enhance natural[2] ecosystem complexity and health,
- Protect and enhance soil, water quality, fish and wildlife habitat, and,
- Is biologically, socially, and operationally sustainable.

These goals are enhanced and expanded within each area. For each goal, objectives are developed to provide specific, often measurable, elements for achieving each goal. Goals define overarching directions for the County's Forest Stewardship and Restoration program. Objectives are quantitively or qualitatively measurable elements used to assess forest conditions and track forest development progress toward goals.

Beyond goals and objectives, policies for specific elements of forest restoration are presented that generally follow a conceptual framework based on restoration components presented by the

[1] "Adaptive management is a process of gathering and using scientific information to evaluate and improve forest management decisions and practices on the ground." Washington Forest Protection Association, https://www.wfpa.org/natural-resources-conservation/adaptive-management/ (last accessed 10/30/2024).
[2] Defined as: "vegetation where ecological processes primarily determine species and site characteristics". United States National Vegetation Classification. https://usnvc.org/about/plant-communities-and-vegetation-classification/natural-vegetation-classification/ (last accessed 10/22/2024)

Society of Ecological Restoration in the Standards of Practice to Guide Ecosystem Restoration[3]. These standards were developed to provide land managers with a solid framework for restoration projects that yield achievable, efficient, and scientifically sound results. The components of a restoration project as it applies to forestry in Kitsap County Parks are broadly broken down into the following components:

- **Forest and Resource Assessment**: Policies related to how assessments of forests and other resources would be conducted including:
    - the types of surveys and inventories used;
    - the types of data collected;
    - the development of reference and desired conditions used in assessments; and
    - the types of assessments conducted.
- **Stewardship and Restoration Planning and Permitting:** Policies related to how planning for stewardship and restoration in parks would be conducted and the types of permitting that would be done prior to stewardship and restoration activities including:
    - the development of park-specific stewardship and restoration plans, including public outreach and involvement as well as the expected plan lifespan;
    - the development of Forest Stewardship and Restoration Implementation Plans, including a 10-year strategic plan, 3-year tactical plan, with restoration and financial goals; and
    - the types of permitting that would be used for stewardship and restoration activities.
- **Stewardship and Restoration Implementation:** Policies related to stewardship and restoration activities and resource protection including:
    - the types of activities that would be used for forest restoration (including wildlife habitat), vegetation, road, and aquatic resources and
    - the types of protection that would be used for sensitive and/or culturally important resources including wildlife habitats, soils, aquatics, and plant species/communities.
- **Forest and Resource Monitoring and Evaluation:** Policies for how resources would be monitored and evaluated to determine how growth, development, and, possibly, stewardship and restoration activities are moving forests toward goals and objectives.

[3] Available at https://doi.org/10.4060/cc5223en (last accessed 09/02/2025)

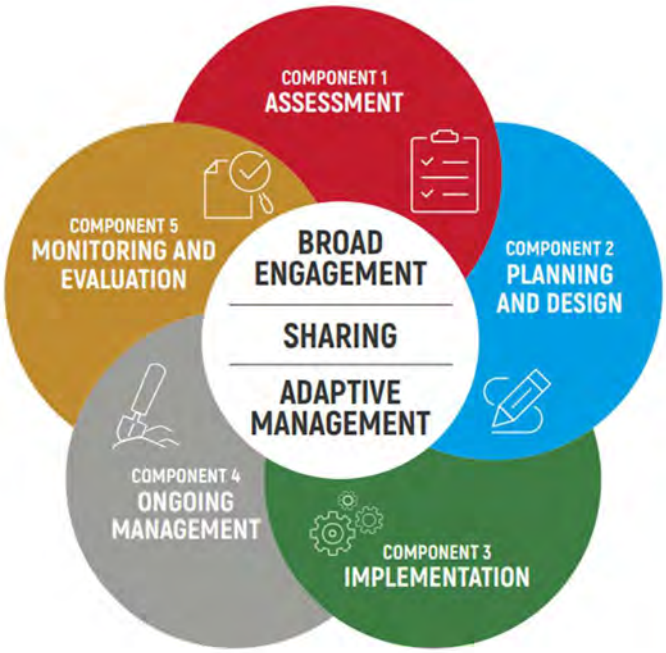

Figure 1: The conceptual framework for restoration that is guiding work by Kitsap County Parks. From SER: Standards of Practice to Guide Ecosystem Restoration, A contribution to the United Nations Decade on Ecosystem Restoration 2021–2030.

Policy Purpose

The Forest Stewardship and Restoration Policy guides forest stewardship, restoration, and related activities within Kitsap County Parks. Forest stewardship and restoration includes activities related to forest trees and vegetation, access roads that may be or have been used for forest management access, forest soils, wildlife habitats, and steams, wetlands, and other aquatic resources. This includes forest stewardship and restoration purpose and need, goals and objectives, forest and resource assessment activities, planning and assessment activities, permitting and implementation activities, and forest and resource monitoring activities.

This policy does not include recreation, trails and other recreation infrastructure development and maintenance, volunteers and their involvement in stewardship and restoration activities. These areas will be addressed in topic-specific policies.

Forest Stewardship and Restoration Purpose and Need

The purpose for forest stewardship and restoration activities by the Forest Stewardship and Restoration Program is to create forest conditions on Kitsap County Parks that:

- Have compositions and structures that facilitate the growth of large, vigorous[4] trees that are resilient to insects, diseases, expected climate change, and potential wildfires,

[4] "Vigorous" refers to tree growth.

- Provide high quality terrestrial, aquatic, and riparian habitats that have high ecological function and ecosystem services production,
- Maintain and enhance soil conditions and productivity.
- Allow opportunities for public and cultural foraging and gathering, and
- Are refugia for wildlife and humans in an increasingly developing and urbanizing environment.

Forest stewardship and restoration treatments are needed to create these conditions because:

- Forests on Kitsap County parks are primarily dominated by primarily small (10-15" average DBH) and medium (16-20" average DBH) with high to very high levels of inter-tree competition while lacking areas dominated by large (20-30" average DBH) and very large (>30" average DBH) trees[5] (Figure 2). This is the legacy of the industrial forest management by the previous owners of the park lands.
- Tree growth and vigor are reduced in high and very high competition forests where most trees near or approaching their maximum diameter given the number of trees in the forest.
- Tree health is reduced in high and very high competition forests where trees are stressed and increasingly susceptible, and succumbing to, mortality from insects, diseases, and competition for limited resources.
- Ecosystem services, including high quality wildlife habitats, carbon sequestration, vegetation diversity, foraging and gathering opportunities, etc., are reduced in high and very high competition forests with slow-growing small to medium diameter trees, little, if any, functional standing dead and downed wood, dense tree canopies, and suppressed understory vegetation.
- Ecological function is reduced, especially in previously harvested areas along streams and wetlands, in high and very high competition forests that lack functional large woody debris and trees that would become functional large woody debris, understory vegetation is suppressed and sparse, and deciduous trees are lacking.
- Forests with the above conditions may be so departed from native reference conditions they are unlikely to be able to achieve mature forest conditions without restoration action (Carey 2007).

Where needed and appropriate[6], Forest stewardship and restoration treatments would change forest conditions by:

- Removing trees to create additional room for lager trees and provide access to greater resources. This would include removing smaller trees to mimic competition-related mortality, groups of trees to mimic mortality from root diseases, and/or other treatments.

[5] Donato *et al.* (2020) and D. Donato (personal communication, April 4, 2024) suggest that pre-contact forests in the western Cascade Range and Kitsap County were primarily dominated large and very large trees based on historical disturbance regimes.

[6] All areas with treatment need may not be treated. This would include, but not limited to, areas excluded from treatment by applicable regulations or where environmental or societal concerns outweigh the need for treatment.

- Creating openness in the canopy and/or canopy gaps to allow increased light to reach the forest floor to increase growth of existing understory trees and vegetation and/or to establish a new cohort of trees and understory vegetation.
- Creating standing dead and downed wood where they are lacking to improve wildlife habitat and ecosystem function.
- Removing trees and creating openness or openings in the canopy would:
    - Increase tree growth, vigor, and resilience to insects, diseases, and expected climate change.
    - Improve overall forest health by reducing competition, stress, and impacts from insects, diseases, and expected climate change.
    - Improve ecosystem services, including carbon sequestration, wildlife habitat, species diversity, and foraging and gathering opportunities and ecosystem function through increased tree growth and understory vegetation production.

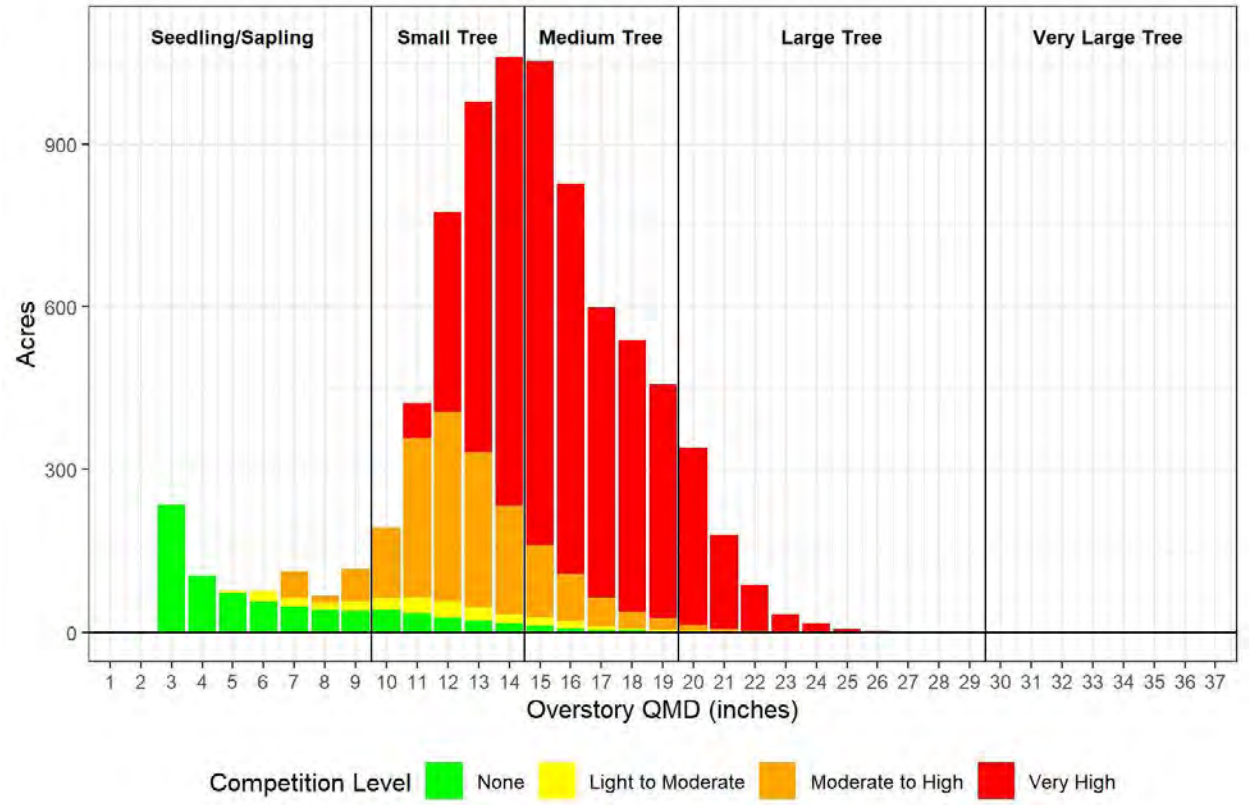

Figure 2: Acreages of parks by dominant tree sizes and competition levels. Dominant tree sizes are the average diameter of the largest 100 trees per acre. Competition levels are based on percentage of maximum stocking[7] as <25%, 25-35%, 35-55%, and >55% for None, Light to Moderate, Moderate to High, and Very High. Data for tree sizes, competition levels and maximum stocking from RS FRIS and other data from the Washinton Department of Natural Resources. Tree size classes, Seedling/Sapling, Small Tree, Medium Tree, Large Tree, and Very Large Tree based on O'Neil et al. *(2001).*

[7] "Stocking" refers to the number of trees in an area with the maximum varying based on the sizes and species of trees.

Forest Stewardship and Restoration Goals and Objectives

Forest stewardship and restoration goals and objectives define what the forest stewardship and restoration activities endeavor to accomplish in Kitsap County Parks. Goals define overarching directions for the County's Integrated Forest Stewardship program. Objectives are the quantitively or qualitatively measurable elements used to assess forest conditions and track forest development progress toward the goals. Objectives are grouped into three components: 1) forest structure and composition; 2) aquatic and soil resources; and 3) social, biological, and operational sustainability.

Forest Structure and Composition

Goals:

Restore, maintain, and enhance forest structure (numbers and sizes of trees) and composition (species and species types) that are consistent with site-appropriate vegetation types and plant associations, such as Chappell (2006). Structure and composition improvements directly relate to improvements in wildlife habitat because they are linked.

Objectives:

- Increase vigor and tree growth to facilitate resistance and resilience to, and reduce morality caused by, endemic expected climate change, forest insects, diseases, and other disturbance factors.
- Facilitate tree growth to speed the development of large diameter trees in younger forests. These will be future large trees, snags, and downed logs.
- Wherever possible, maintain and enhance existing large diameter trees.
- Where needed, encourage the establishment of additional cohorts of understory trees to increase forest structure and species diversity.
- Where needed, encourage the development of site-appropriate understory vegetation including wildlife forage and culturally important species.
- Where needed, restore species compositions and diversities consistent with site vegetation types and plant associations.
- Protect and enhance standing dead trees and downed logs where they exist.
- Create standing dead trees, downed logs, and other habitat structures where they are lacking at numbers that are consistent with site-specific vegetation types, plant associations, and structural stages.
- Allow native insects and diseases to operate at endemic levels to sustain natural ecological processes unless trees impacted by these insects and diseases create hazards for life, property, or infrastructure.

Aquatic and Soil Resources

Goals:

Protect, maintain, and enhance aquatic resources to ensure clean water, shade, and other ecological functions for fish and other species that use streams, lakes, shorelines, and wetlands. Protect, maintain, and enhance soil resources to ensure long-term soil health, nutrition, stability, and productivity.

Objectives:

- Protect, enhance, and, to the extent possible, restore riparian and wetland buffers, including understory, streamside, and wetland vegetation and trees within the buffers, to ensure that ecological functions, such as shade, large woody debris, litter fall, water filtration, etc. are protected and enhanced.
- Whenever possible mark the extent of wetlands and floodplains during the winter to ensure that the full extent of these areas is used when delineating wetland and riparian buffers.
- Wherever possible, minimize soil disturbance, compaction, and erosion that may result from forest stewardship and restoration and other activities.
- Maintain roads used for timber hauling, emergency services access, and other activities to minimize sediment delivery to streams and wetlands.
- Maintain culverts, cross-drains, and other water crossing structures to minimize sediment delivery to streams and wetlands and ensure fish can pass roads in fish-bearing streams.
- Hydrologically stabilize disused roads to minimize the potential for sediment delivery to streams and wetlands.

Social, Biological, and Operational Sustainability

Goals:

Ensure that forest stewardship and restoration activities are socially, biologically, and operationally sustainable over the life of the Forest Stewardship and Restoration Program.

Objectives:

- Ensure that forest stewardship and restoration activities maintain and enhance forest growth, development, and ecosystem services production over short- and/or long-term timelines following the activities.
- Ensure that forest stewardship and restoration activities are responsive to expected climate change to maintain and facilitate resilient forests in the future.
- Partner with local tribes to identify culturally important fish, wildlife, and plant species, opportunities to protect and enhance these species, and opportunities for cultural gathering events.
- Engage the public, volunteers, and other stakeholders, where appropriate, in aspects of assessments, planning, implementation, monitoring, and evaluation.

- Prioritize stewardship, restoration, maintenance, and enhancement over financial return, while, when possible, recouping costs of implementing projects through the sale of trees harvested to meet ecological and restoration objectives, which are valuable County assets.
- Maintain Small Forest Landowner status under the Washington Forest Practices Rules by limiting harvest volume from forest stewardship and restoration activities to an average of no more than 2 million board feet (MMBF) per year across three-year periods.

Forest and Resource Assessment

Kitsap County Parks will use the best available science, data, technology, and practices to assess current forest, vegetation, forest road, aquatic, soil resource conditions, wildlife use, ecosystem services production, and departures from reference model or desired conditions. Across Kitsap County parks, assessment units and forest stewardship and restoration areas will be delineated to help reduce complexity and make assessments tractable. Forest, vegetation, and other resource inventory data will be collected and compiled to describe current conditions both quantitatively and qualitatively. Reference conditions will be created to provide benchmarks for restoration and determining departures from these conditions. Assessment tools and techniques will be used to evaluate current conditions, describe, quantify, and value ecosystem services and potential environmental impacts of stewardship and restoration activities. Assessments will generally be performed on individual parks as a part of forest stewardship and restoration planning and monitoring. Elements of forest and resource assessment include but not limited to:

Assessment Unit and Stewardship and Restoration Area Delineation

Delineate areas within Kitsap County parks into assessment units and/or stewardship and restoration areas to facilitate assessment, planning, and implementation. These units and areas would have consistent forest structure and composition to reduce variability in planning and implementation protocols. Elements include but are not limited to:

- Use the best available data, information, and techniques in delineation.
- Update delineated units and areas as needed to account for changes related to forest stewardship and restoration activities, forest growth and development, forest disturbances, or other elements that change forest structures and compositions.

Forest and Resource Inventories

Use the best available data forest and resource inventory data to describe current forest and resource conditions. Forest and resource inventories quantify the conditions of forests, vegetation, and roads along with associated structures. These data provide the basis for assessments of forest and resource conditions. Where field collected data meeting quality standards are available, they will be used to characterize current forest conditions. In areas where field collected data are not available, the best publicly available data would be used. Publicly available data may include but are not limited to Washington Department of Natural Resources

(WADNR) Remotely Sensed Forest Resource Inventory System data[8], USDA Forest Service (USFS) Forest Inventory and Analysis (FIA) data[9], Washington Department of Fish and Wildlife (WDFW) fish passage data[10], WADNR Heritage Program data[4]. Elements of forest and resources inventories include but are not limited to:

Forest Inventories

Use statistically valid and consistent sampling methods, with known statistical properties and pre-specified accuracy (confidence) levels, to collect forest inventory data. These methods will provide unbiased information forest conditions that are accurate with known precision. Accuracy and precision of the forest inventory will ensure that the data are representative of actual forest conditions and repeatable for monitoring purposes. Elements include but are not limited to:

- Use the best available tools, techniques, and technologies, with known statistical properties, for data collection and compilation.
- Collect sufficiently detailed information to support assessments and stewardship and restoration planning.
- When publicly available data are used to describe forest conditions, corroborate or validate those conditions with actual conditions in park forests.

Regeneration Surveys

Use statistically valid sampling and data compilation techniques to determine seedling stocking and survival – both planted and naturally seeded trees – in regeneration harvest areas. These areas are within the Pope Resources/Rayonier timber reserve Port Gamble timber and created openings in restoration areas. Elements include but are not limited to:

- Use the best available tools, techniques, and technologies, with known statistical properties, for data collection and compilation.
- Collect sufficiently detailed information to support assessments and stewardship and restoration planning.

Vegetation Inventories

Use the best available techniques, data, and technologies to collect vegetation data within Kitsap County parks. Data and information collected in this manner will provide the most accurate representation of the presence, composition, and extent of native and invasive species to guide forest stewardship and restoration actions. Vegetation classification helps identify plant communities that may be locally or globally rare, areas of high quality, and/or forest with old growth characteristics for additional protection consideration. Elements include but are not limited to:

[8] Available at https://geo.wa.gov/maps/wadnr::raster-all-rs-fris-rasters/about (last accessed 5/28/2024)
[9] Available at https://www.fs.usda.gov/research/products/dataandtools/tools/fia-datamart (last accessed 5/28/2024)
[10] Available at https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html (last accessed 5/28/2024)
[4] Available at https://www.dnr.wa.gov/NHPdataexplorer (last accessed 7/22/2024)

- Mapping and assessment of vegetation communities using the U.S. National Vegetation Classification (USNVC)[11].
- Vegetation plots collected using the Peet plots (Peet et al 1998) to be consistent with USNVC methodologies.
- Identify areas with old growth characteristics using the methods outlined in VanPelt (2007).
- Identify areas with invasive plant species concerns.
- Methodologies and assessment tools may change as new best practices become available.

Road, Water Crossing, and Drainage Structure Inventories

Use the best available methods, techniques, and technologies to inventory the locations and conditions of roads – both those used for vehicular access and timber hauling and those that are being used as trails – and associated water crossings, culverts, cross-drains, and other drainage structures. Elements include but are not limited to:

- Collect and store spatially explicit road, water crossing and drainage structure data and information in electronic formats that are compatible with systems such as GPS (geographic position system) and GIS (geographic information systems)
- Collect sufficiently detailed information to support assessment, planning, and monitoring, which may include by not limited to:
    - Road surface type and condition
    - Current road use
    - Roadside vegetation conditions
    - Road erosion and drainage issues
    - Type, size, and condition of water crossing structures, culverts, cross-drains, other drainage structures, and/or
    - Other pertinent, resource-specific information as necessary.

Aquatic Resource Inventories

Use the best available data and techniques to describe and quantify the types and extents of streams, wetlands, and other aquatic resources within Kitsap County parks. Streams, wetlands, and other aquatic resources are important habitats for many fish and wildlife species, and provide clean water to areas within the parks, Kitsap County, Puget Sound and Hood Canal. These resources are also extensive, scattered throughout the County, and difficult to completely inventory. Elements of aquatic resource inventories include but are not limited to:

- Ensure the most extensive coverage of aquatic resources by using the best available data for resource location and type classification. This may include watercourse and waterbody

[11] Available at https://usnvc.org/ (last accessed 07/22/24)

data from the Washington Department of Natural Resources[12], critical areas data from Kitsap County[13], Wild Fish Conservancy survey data[14], and/or other data.

- Improve the accuracy of aquatic resource inventory data by opportunistically locating and evaluating aquatic resources within forest stewardship and restoration areas. This may include but may not be limited to:
    - Confirming or updating the location, extent, and type of mapped aquatic resources then provide updates to the owners of the mapped data.
    - Delineating, mapping, and typing unmapped aquatic resources and providing the information to agencies that own and manage aquatic resource data.

Soil Surveys

Use the best available data for soils within Kitsap County parks. Soils play an important role in forests' ecological process including potential tree growth, vegetation composition, water availability, and hydrology. Potential adverse impact of restoration activities, such as erosion and compaction, are also related to soil properties and landform conditions, such as slope steepness or shape. Soil survey data sources include the USDA Natural Resources Conservation Service[15] and Kitsap County GIS data[16]. Landform conditions data include the WADNR Westside Slope Stability Model layer[17]

Wildlife Use

Use the best available science, data, techniques, and technologies to help determine what species or types of wildlife are using the forests on, or near, Kitsap County parks. The types of wildlife that are using, or could use, these forests will help guide wildlife habitat enhancement and development. This information will also help guide any operational limitations during restoration activities to minimize disturbances to sensitive species. Information sources for wildlife use include but are not limited to the Washington Department of Fish and Wildlife Priority Habitats and Species List[18] and threatened and endangered species list[19] as well as the Washingtons State Wildlife Action Plan[20].

[12] Available online at https://data-wadnr.opendata.arcgis.com/search?q=hydrography. (Last accessed 5/31/2024)
[13] Available online at https://kitsap-od-kitcowa.hub.arcgis.com/ (Last accessed 5/31/2024)
[14] Available online at https://wildfish.maps.arcgis.com/home/item.html?id=435c57ba568b4adba24b06030b0dd91b (Last accessed 5/31/2024)
[15] Available online at https://websoilsurvey.nrcs.usda.gov/app/. (Last accessed 6/3/2024)
[16] Available online at https://kitsap-odkitcowa.hub.arcgis.com/datasets/3220cc4dbb03443fbce65a1b5813648b_0/explore (Last accessed 6/3/2024)
[17] Available online at https://data-wadnr.opendata.arcgis.com/maps/3a8ade37a63d45f89406e9cf788bfbe3/explore (Last accessed 7/23/2024)
[18] Available online at https://wdfw.wa.gov/species-habitats/at-risk/phs/list (last accessed 10/31/2024)
[19] Available online at https://wdfw.wa.gov/species-habitats/at-risk/listed (last accessed 10/31/2024)
[20] Available online at https://wdfw.wa.gov/species-habitats/at-risk/swap (last accessed 10/31/2024)

Reference Conditions

Use the best available science, data, and information to create reference conditions to guide forest stewardship and restoration assessments, planning, activities, and monitoring. Forests in Kitsap County are unique given their location within the Puget Sound Trough, threats from extensive development, and relative lack of US Forest Service ownership resulting in comparatively little forest stewardship and restoration research within the county. Elements include but are not limited to:

- Wherever possible prioritize studies and data from Kitsap County and similar forest ecosystems, such as other areas within the Puget Trough and areas within the eastern and northeastern portions of the Olympic Peninsula.
- Ensure that reference conditions models include measures and information that are related to, and comparable with, the data collected and compiled in forest, vegetation, and other resource inventories.
- Account for expected future climate conditions in reference conditions to facilitate resilient future forest conditions.

Assessments

Use the best available open, transparent, rigorous, and repeatable assessment tools and techniques to evaluate, describe, and value forest, vegetation, other resources, and ecosystem services and to make comparisons with reference model conditions and other desired conditions. Performing assessments in this way will help ensure public trust in the processes used in planning, evaluating, and monitoring forest and forest stewardship and restoration planning. Elements include but are not limited to:

- Wherever possible, use standardized, best available assessment models, tools, techniques, and protocols. Examples include but are not limited to:
    - The USFS Forest Vegetation Simulator (FVS) forest growth and yield model and associated extensions to virtually grow forest and apply tree-related forest stewardship and restoration actions.[21]
    - The Fire and Fuels Extension for FVS (Rebain *et al.* 2010) to assess carbon sequestration, standing dead and downed wood, and wildfire hazards.
    - The National Volume Estimator Library to estimate tree and harvested log volumes, biomass, and sequestered carbon.[22]
    - Carbon estimates such as Hoover *et al*. (2023) carbon sequestration and cycling in different forest and product components.
    - Reference conditions for standing dead and downed wood using the DecAID Advisor (Mellen-McLean *et al.* 2017).

[21] FVS and associated documents are publicly available online at https://www.fs.usda.gov/fvs/ (Last accessed 5/31/2024)

[22] The National Volume Estimator Library and associated software and documentation are available online at https://www.fs.usda.gov/forestmanagement/products/measurement/volume/nvel/index.php (last accessed 8/19.2024)

- Document assessments and assumptions to ensure repeatability.

Stewardship and Restoration Planning and Permitting

Kitsap County Parks will maintain current plans and acquire the necessary permits from appropriate agencies prior to project implementation. Planning and permitting for the Forest Stewardship and Restoration Program falls broadly into three categories:

- **Forest Stewardship and Restoration Program Strategic Planning:** Strategic planning compiles information from park plans and other sources into long-term (10+ years) and short-term (1-3 years) action plans to determine the extent of work that will be needed to implement the Forest Stewardship and Restoration Policy, estimates of revenues and costs, and expected effects of forest stewardship and restoration planning.
- **Park Stewardship and Restoration Plans:** Park-specific plans to assess the conditions, determine more specific treatment needs, prescribe stewardship and restoration actions, create a general schedule for actions, and evaluate expected impacts of the actions within the park.
- **Forest Stewardship and Restoration Project Planning & Permitting:** Acquiring permits for forest stewardship and restoration activities through appropriate regulatory agencies will ensure that the actions comply with all applicable regulations to minimize adverse effects on resources and the environment.

Additional planning or permitting steps may be required as requirements and best management practices change.

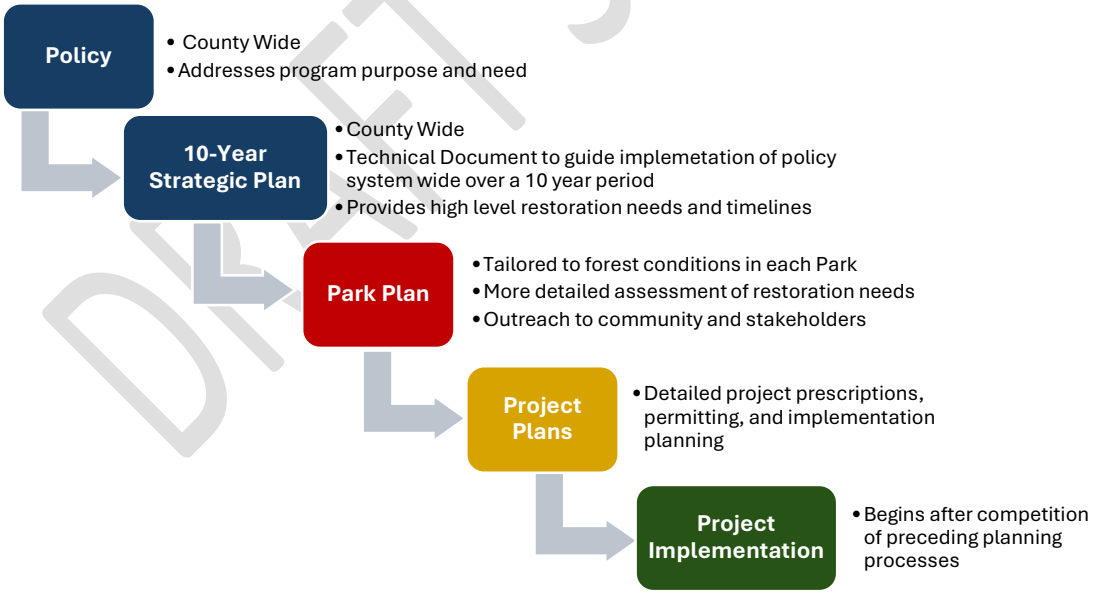

Figure 3 Planning Structure for Forest Stewardship & Restoration

Forest Stewardship and Restoration Program Strategic Planning

Kitsap County Parks Forest Stewardship and Restoration Program will perform strategic planning at the program level to ensure that stewardship and restoration needs across parks are met and that the program is biologically, socially, and operationally sustainable. Planning will look across all parks that may need restoration using two different time horizons: 10 years for strategic planning; and 1-3 years for tactical planning.

Ten-year strategic planning will show the sequence of projects that are likely to occur during this time. Information from the strategic plan would identify areas that are expected to have stewardship and restoration activities, expected labor needs, costs, and revenues associated with the activities, and expected effects of the activities. Planning over a 10-year horizon will also help ensure that the labor needs, costs, and revenues remain relatively consistent.

Tactical planning over a 1–3-year period[23] highlights specific projects that would be planned, permitted and, if determined to be ecologically necessary, implemented during this time. Planning and permitting these projects may include pre-activity resource inventory collection, performing project-specific financial analyses, and applying for all necessary project permits.

Forest Stewardship and Restoration Strategic Planning would be assessed annually to maintain a queue of projects and account for changes in needs, markets, costs, budgets, and project completion and/or delays. Annual updates provide the opportunity to report what was accomplished in the preceding year and how it compared to what was planned. It is also an opportunity to update assumptions used in analyses to ensure that they are current and to add additional forest stewardship and restoration actions and projects to the 10-year strategic plan.

Park Stewardship and Restoration Planning

Kitsap County will perform park-specific stewardship and restoration planning ensures that stewardship and restorations needs, actions, and implementation timelines are determined before actions are implemented. Park-specific stewardship and restoration plans will integrate information that may include, but is not limited to:

- Historical information about the park,
- Information and data about current forest conditions and departures from desired conditions,
- Stewardship and restoration needs and actions to address the needs to move forests toward desired conditions,
- Assessment of competing needs (wildlife, wetlands, community feedback, etc.)
- Expected short- and long-term effects of the stewardship and restoration actions.

Park-specific stewardship and restoration plans provide the basis for the stewardship and restoration that take place in each park. The process of creating these plans integrates forest, vegetation, and other resource inventory data and assessments to describe conditions within the

[23] This planning horizon was chosen because it coincides with the life of a Washington Department of Natural Resources Forest Practices Application – a primary vehicle for forest stewardship and restoration activities.

park, differences from reference or desired conditions, and the actions needed to address these differences that would put the park on a trajectory to move closer to the reference and desired conditions. Outreach and collaboration with the public, tribes, volunteers, and other interested parties will help facilitate support and social license to ensure that plans would achieve their desired outcomes.

Planning takes place at a specific point in time with inventory data representing conditions at that time. Over time, as forest continue to develop and change, stewardship and restoration activities alter forest structure and composition. In addition, other resources, especially roads, invasive species, or other environmental stressors, may change, as well as the wants and needs of the public may change. Plans must be updated regularly, typically every 10-years, to incorporate these changes. Elements of park stewardship and restoration planning may include, but are not limited to:

Park History Compilation

Use the best available historical information to provide context for the current conditions in the park to help understand how the conditions developed. Sources may include historical aerial photographs[24], past survey and harvest records, past planning documents, presence of stumps, skid trails, roads, culverts, etc., in the park.

Forest Stewardship and Restoration Needs Determination

Utilize the results from park assessments and the best available science and information determine the scope and scale of needs for restoration actions for each park. Explain why and when the actions are, or are not, needed.

Forest Stewardship and Restoration Actions Prescriptions, Specifications and Timelines

Prescribe and specify stewardship and restoration actions along with approximate timelines to address treatment needs for each assessment unit or stewardship and restoration area. This would include the types of actions that are needed; what the actions would target for modification, removal, addition, or replacement; expected outcomes; and how those outcomes will move the forests towards reference or desired conditions. This might also include no actions for units or areas that do not have treatment needs or where there are other resource-specific or public concerns that outweigh the need for actions.

Forest Stewardship and Restoration Action Effects Evaluation

Evaluate the proposed activities and how they may change and affect conditions in the park over the short-term (up to 30 years). Where possible, use models or other tools that may provide objective short- and long-term estimates. If models are not available use the best available science

[24] Historical aerial photography from the 1950s through the 1980s available from the US Geological Survey through Earth Explorer (https://earthexplorer.usgs.gov/, last accessed 5/31/2024) and from the 1990s to present through Google Earth Pro (freely available at https://www.google.com/earth/about/versions/#download-pro, last accessed 5/31/2024)

tempered by professional experience and knowledge of Kitsap County forests. Results of the evaluation will demonstrate how the stewardship and restoration actions are expected to move the park closer to reference and desired conditions over the life of the plan and through a foreseeable future when further stewardship and restoration actions may be needed.

Draft Park Forest Stewardship and Restoration Plan

Compile information from park assessments and planning steps into a draft park forest stewardship and restoration plan. This will be the guiding document for forest stewardship and restoration activities for the 10-year life of the plan or until plan is updated. This plan document should include, at a minimum:

- A narrative about the park including its history, as appropriate, to provide context for the park plan.
- A summary of forest stewardship and restoration goals for the park.
- Descriptions of reference and desired conditions for the forest, vegetation, and other resources in the park.
- Descriptions of current conditions across the park.
- Statements of treatment needs across the park for each resource.
- Prescriptions, specifications, and maps for each stewardship and restoration action and descriptions of how the action helps meet goals and objectives.
- A general schedule for stewardship and restoration actions.
- Evaluations of the expected short- and long-term effects of stewardship and restoration actions and how they would move forests toward desired conditions and help meet park and program goals and objectives.
- Monitoring plan to track progress towards restoration goals and adaptive management needs.

Outreach and Collaboration

Provide information and solicit comments about park stewardship and restoration plans through outreach and collaboration with the public, tribes, and other interested parties, as appropriate. Providing information about the park stewardship plans will help ensure that the public understands what types of stewardship and restoration activities are planned for the park along with expected impacts and benefits. Encourage input and collaboration by soliciting comments about the plans and using the comments, as needed, to refine plans. Public comments will help ensure that park plans provide expected benefits that align with program and park goals and objectives. Together this will help create the social license for stewardship and restoration activities in parks. Elements of public outreach and collaboration may include, but are not limited to:

- Ensure the public, tribes, and other interested parties understand the park stewardship and restoration plan actions and expected impacts through outreach and collaboration. This may include, by not limited to, direct communication, town hall meetings, field tours with groups in the parks, and other topic-oriented meetings.

- Facilitate outreach using a variety of media such as web sites, social media, signage, and print media.

Forest Stewardship and Restoration Plan Updates

Ensure that forest stewardship and restoration plans for Kitsap County Parks are representative of and consistent with current/emerging conditions. Updating and revising forest stewardship and restoration plans provides the opportunity to reassess conditions in the parks and re-engage the public. Assessing updated inventory data will help show whether conditions are developing as expected and whether additional actions are needed. Public outreach and comment solicitation may provide insights into new public wants and desires for their parks that may help refine the updated plan when they align with goals and objectives. A 10-year update interval is expected to sufficient to account for changes in the forest and with public wants, needs, and perceptions.

Forest Stewardship and Restoration Project Planning and Activity Permitting

Ensure that resources are protected, and environmental impacts are minimized by acquiring the legally required permits for forest stewardship and restoration activities. When appropriate coordinate with tribes and agencies about planned stewardship and restoration activities prior to submitting permits to facilitate necessary permitting. Activities that remove trees or occur near or within typed[25] streams or wetlands, in sensitive species habitat, or other critical areas may require permits from the Washington Department of Natural Resources[26], Washington Department of Fish and Wildlife[27], and/or Kitsap Department of Community Development. Where necessary use Washington State Environmental Policy Act (SEPA) checklists[28] to disclose potential environmental impacts.

Class IV-Special Forest Practices Applications[29], which requires a SEPA checklist, will be used for all activities that remove trees and/or maintain, improve, build, or remove forest roads for timber

[25] "Typed" streams and wetlands are those that are classified under a system such as the Washington State Forest Practices Rules (WAC 222-16-030 Water typing system (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-030, last accessed 6/3/2024) , WAC 222-16-031 Interim water typing system (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-031, last accessed 6/3/2024), and WAC 222-16-035 Wetland typing system (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-035, last accessed 6/3/2024)

[26] See WAC 222-16-050 Classes of forest practices (https://app.leg.wa.gov/WAC/default.aspx?cite=222-16-050, last accessed 6/3/2024) for the types or forest stewardship and restoration activities that require WADNR permitting.

[27] See WAC 220-60 (https://app.leg.wa.gov/wac/default.aspx?cite=220-660, last accessed 6/3/2024) for information about projects in or near typed water that may require WDFW permitting

[28] See https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance (last accessed 6/3/2024) for information about SEPA checklists

[29] See WAC 222-15-050 (1) (https://app.leg.wa.gov/wac/default.aspx?cite=222-16-050, last accessed 10/29.2024)

hauling. Kitsap County Timber Harvest permits may be used in limited situations where small areas of parks may be converted to non-forest uses, such as parking lots and other infrastructure to avoid the 6-year development moratorium[30].

Stewardship and Restoration Implementation

Use the most appropriate activity types and associated equipment to implement stewardship and restoration activities to meet activity goals and minimize adverse impacts. Forest stewardship and restoration activity implementation involves removing, adding or modifying resource elements, which may include trees, native vegetation, invasive species, roads, water crossing structures, etc., to achieve desired outcomes and help move conditions toward reference or desired conditions. Equipment, techniques, tools, materials and other aspects of implementation vary depending on the type of resource. Actions in forest and road resources often use heavy equipment to harvest trees or to maintain, improve, build or remove roads and water crossing structures. Actions in native vegetation and invasive species management may use equipment or people with hand tools to plant or remove vegetation depending on need. Resource protection measures will be used to avoid, minimize, or mitigate these potential impacts for all treatment types.

Activity Types

Forest Resources

Use silvicultural treatments[31] that are responsive to the forest conditions and needs and employ appropriate equipment for the terrain where treatments are applied to move forests toward reference and desired conditions. Ensure consistency and avoid confusion about treatments and actions by using the terminology of Society of American Foresters Silviculture Instructors Sub-group (1994). Explicitly state objectives for treatments and actions in silvicultural prescriptions that specify how treatments and actions will be applied and what is expected from the treatments.

Silvicultural treatments and activities imitate natural processes and maintain site productivity by modifying stand structure – the shapes, sizes, and types of trees; stand composition – species of trees; stand density – number of trees; and ages of trees (Aston & Kelty 2018) by removing and/or planting trees. The types of forest resources activities that would be used on Kitsap County parks are consistent with principles of Ecological Silviculture (Palik et al. 2020), Ecological Forest Management (Franklin *et al.* 2018), and Active Intentional Management (Carey 2007). These activities are also consistent with the ecological harvesting allowed in structurally complex and

[30] See Kitsap County Code Chapter 18.16 Timber Harvest (https://www.codepublishing.com/WA/KitsapCounty/html/Kitsap18/Kitsap1816.html, last accessed 6/3/2024) for details.

[31] Silvicultural treatments are developed using principles of silviculture, an applied sub-discipline of forest ecology (Ashton and Kelty 2018), to address treatment needs.

older forests under Commissioner's Order Number 202516 (Upthegrove 2025). Treatment types may include but are not limited to:

Legacy Retention and Enhancement

Retain forest legacy features – large, old trees, large, downed logs, large stumps – that are present within Kitsap County parks. When legacy trees occur within stewardship and restoration areas remove competing trees to enhance the potential for long-term maintenance of these trees. Large, old trees, large, downed logs, and large stumps are important biological legacies from previous forests that provide important habitat elements in the forest. Because they are becoming increasingly rare with time, these would be retained within Kitsap County parks. When stewardship and restoration activities occur around legacy trees nearby trees that are competing for resources would be removed to enhance the resources available to these trees. This will help ensure that these important trees are maintained within Kitsap County parks in the long-term, especially with expected climate change.

Thinning

Use thinning when the objective of stewardship and restoration activities is to increase the growth and vigor of the trees remaining after thinning and/or to facilitate the growth and development of understory trees and vegetation. Thinning would remove a portion of the trees in an area to redistribute resources to remaining trees and/or bring the number of trees in line with available resources, especially water, on a site. Species compositions may also be modified through thinning by targeting species for removal or retention to influence diversity and forest health.

Thinning removes excess trees that contribute to overcrowding and decreased ecological function within a stand. This type of treatment may also be called ecologically based thinning (Franklin *et al*. 2018), restoration thinning (Dwyer *et al*. 2010), variable density thinning (VTD, Carey 2003, Ashton and Kelty 2018, Brodie and Harrington 2020), or commercial[32] thinning (Ashton and Kelty 2018, Helms 1998, Palik et al. 2020, USDA 2014). Thinning would be used where competition between trees has reduced tree growth resulting in stressed trees that may be susceptible to insects, disease, and other mortality causes. The intent of thinning is to generally mimic ecological processes that result in tree mortality, such as competition, insects, and diseases, though trees may be removed rather than left on-site. Following thinning the remaining trees would have increased access to resources, including light, water, nutrients, and space, that would allow the trees to increase their growth, vigor, resilience to insects, disease, and other mortality causes. An important aspect of thinning is that regeneration, though it may happen spontaneously through seeding, is an expected result of thinning.

Thinning may also be used where there is an established cohort of smaller shade-tolerant trees or understory vegetation that would benefit from additional light. Growth of the trees in the shade tolerant cohort may be limited by a dense overstory. Understory vegetation may be sparse and produce little, if any, fruit for wildlife forage or for human gathering. Thinning would provide

[32] "Commercial" generally refers to tree size – trees that are sufficiently large to yield a merchantable log. This is typically greater than 7-8 inches diameter at breast height (4.5 feet above the ground).

additional light to the forest floor to facilitate the shade-tolerant tree and understory vegetation reestablishment, growth, and production.

Spatial variability within stands may be increased through thinning where conditions demonstrate the need. Tree spacing after treatment may vary across the stand where increased spatial variability is needed. This is like variable density thinning except open areas, referred to as "gaps", may not be used. When gaps are used, they would be uneven-aged regeneration patches embedded in a matrix of thinning. Some thinning operations produce merchantable material that may be sold to local sawmills or other facilities to offsets cost and potentially return revenue to the County.

Young stand thinning will remove trees in young stands to reduce the number of trees and facilitate the growth of the remaining trees. This is also known as precommercial[33] thinning (Ashton and Kelty 2018, Helms 1998, Palik et al. 2020) or stand improvement (USDA 2014). Trees removed in young stand thinning are generally too small to produce merchantable volume resulting in a treatment that produces no revenue to offset harvest costs. This treatment is an investment in these young stands to facilitate development toward reference and desired conditions.

Uneven-aged Regeneration Harvesting

Use uneven-aged regeneration harvesting methods (Ashton and Kelty 2018, USDA 2014, Palik et al. 2020) when the objective of stewardship and restoration actions is to increase species diversity, vertical canopy diversity, and horizontal spatial diversity through the establishment of a new cohort of trees. Using uneven-aged methods, gaps are created in the canopy to allow light to reach the forest floor to facilitate regeneration. Regeneration may happen through seeding from remaining trees or by planting trees. These canopy gaps also increase the spatial diversity in the forest to help reduce the potential for disease spread and provide habitat complexity for wildlife. Uneven-aged methods include group-selection with reserves, and single tree selection.

Group-selection with reserves removed most of the trees in an area to allow the establishment of new trees while leaving some trees (approximately 3-10 trees per acre) to provide habitat, seed sources, and/or other benefits. These areas may range from 1 – 3 acres (200 – 350 feet wide) in size depending on treatment objectives, the type of treatment used, and the expected regeneration species. This type of treatment may be used where trees may not respond well to thinning, such as areas with tall, skinny trees with small crowns that would be at risk of falling (windthrow) or breaking (wind snap) following thinning. Group-selection with reserves would be used in combination with thinning to increase spatial diversity.

Single-tree selection removes individual trees throughout a stand to create canopy gaps and spatial variability in the stand to facilitate the growth of remaining trees and to establish new trees within the stand. This type of treatment would be used where there are many healthy trees that would respond well to reduced stand densities but lack vertical canopy diversity and spatial variability.

[33] "Precommercial" generally refers to tree size – trees that are too small to yield a merchantable log. This is typically under 7-8 inches diameter at breast height (4.5 feet above the ground).

Planting

Planting would be used to establish new trees following uneven-aged regeneration harvesting, when required under the Washington Forest Practices Rules[34], or when the objective is to establish species that would help move forests toward desired conditions. Trees would be planted during the winter when the trees are dormant with seedlings being sourced from nurseries that have seed sources that are compatible with Kitsap County.

Species whose current ranges do not overlap with Kitsap County, such as redwoods, giant sequoias, non-native oaks, etc. would not be planted as part of forest stewardship and restoration actions. However, southern genotypes of extant species or species from outside Kitsap County may be planted as part of limited species migration experiments and/or test plots in horticultural settings.

Wildlife Habitat Enhancement

Create dead wood structures, including standing dead and downed wood, to enhance wildlife habitat where they are non-existent, limited, or lacking. Dead wood is an important habitat feature for many wildlife species (Sullivan *et al*. 2021). Where standing dead and downed wood are lacking or limited, create standing dead trees (snags), leave logs on the ground, and/or construct log piles and/or habitat piles to enhance wildlife habitat. Elements of habitat enhancement may include but are not limited to:

- Use logs with little merchantable value, including defective trees and defective or small logs that would only be sold as pulp logs, to construct habitat enhancement features.
- Whenever possible, create habitat structures during thinning operations when equipment is onsite following best available science for structure configuration, size, and location.
- Ensure that overall standing dead and downed wood amounts are comparable with recommendations, such as the USDA Forest Service's DecAID Advisor system (Mellen-McLean *et al*. 2017)

Silvicultural Prescriptions

Use detailed silvicultural prescriptions to specify treatment types; trees targeted for removal and/or retention; and expected post-treatment conditions following treatments. Silvicultural prescriptions specify the suite of planned silvicultural treatments used to meet stand treatment needs and help move conditions toward reference or desired conditions (Helms 1998). The prescriptions may include one or more treatments including thinning, young stand thinning, uneven-aged regeneration, and/or planting to meet stated stand structure, composition and density goals and objectives for the stand. Expected conditions following the treatments and actions in the prescription would put the stand on a trajectory to develop toward desired conditions. In some cases, post-treatment conditions may move away from desired conditions in the short-term to better meet desired conditions in the long-term.

[34] See WAC 222-34 (https://app.leg.wa.gov/WAC/default.aspx?cite=222-34-010, last accessed 6/3/2024) for specifics on reforestation requirements.

Vegetation Resources

Use approved, appropriate, industry-standard, methods, materials and equipment to implement actions related to native, non-native, and invasive vegetation resources. Vegetation resource actions generally establish, enhance, remove, and/or modify understory vegetation through planting, cutting, pulling, pruning, trimming, or other methods. Actions generally apply to two vegetation types, native species that would be planted or enhanced and invasive species that are adversely affecting native species and vegetation communities. These actions may include but are not limited to:

- Development of restoration plans if native vegetation deviates from desired conditions defined, in part, by US National Vegetation Classification communities (USNVC 2024).
- Planting or seeding of native species as appropriate to achieve desired conditions and/or for cultural use by local tribes.
- Removal or treatment of invasive or non-native species using an integrated pest management approach utilizing the best available sciences and methods.

Road and Aquatic Resources

Use approved, appropriate, industry-standard methods, materials, and equipment to implement actions related to roads and aquatic resources within Kitsap County parks. These actions would be designed to minimize detrimental impacts from roads and their use, including sediment production and delivery, to aquatic resources and associated species. Actions may include but are not limited to:

- Road maintenance and betterment including grading, surfacing, brushing, and ditching. This may include converting trails on former roadbeds back to roads used for hauling or emergency vehicle access.
- Road decommissioning or abandonment including hydrologic stabilization.
- Road removal.
- Road conversion to trail.
- Culvert, cross-drain, and water crossing structure maintenance, removal, improvement, or replacement.

Resource Protection and Enhancement

Protect and enhance aquatic, wildlife, vegetation, and other resources by applying and adhering to resource-specific rules and/or site-specific protection and/or enhancement that may be needed. Elements of resource protection and enhancement include but are not limited to:

- Protect and enhance aquatic resources by applying and adhering to riparian area and wetland buffers following the Washington Forest Practices Rules, which include minimum buffer widths and activity restrictions. Where buffers are overly dense apply thinning treatments as allowed under the Washington Forest Practices Rules to facilitate tree growth and enhance riparian function.

- Locate and, where needed, buffer wildlife resources, especially large trees with structurally complex canopy habitat features, large snags (standing dead trees) and large downed wood to minimize impacts from treatment activities.
- Locate large and old trees, which are relatively rare within Kitsap County parks. These trees would be identified using the criteria from Van Pelt (2007) or other comparable criteria applicable to Kitsap County. Buffer large trees where they have little competition to minimize impacts from treatments. Enhance large and old trees within dense stands by removing competing trees within a pre-specified distance to increase available resources and resiliency to expected climate change, insects, and diseases.
- Protect sensitive, unique, and/or rare species, which may include species listed as species of concern, threatened, or endangered, and their habitats using species specific management practices to minimize impacts.

Forest and Resource Monitoring and Evaluation

Perform forest and resource monitoring and evaluation during and/or following treatments and actions to ensure objectives and performance standards were met and at regular intervals to ensure that forests and resources are developing toward reference or desired conditions. Monitoring methods and intervals would be resource specific and long enough to detect changes but short enough to inform changes to actions and treatments that may be needed.

Forest and resource monitoring and evaluation will involve data collection and assessments that are like those used in forest and resource assessments. It may include forest inventory; vegetation inventory; road, water crossing and/or drainage structure inventory; and/or aquatic resources inventory. All data will be evaluated relative to treatment and action objectives or reference or desired conditions and measurable performance standards. If results of monitoring, while treatments and actions are occurring, find that treatments and actions, or their implementation, are not meeting objectives the treatments, actions, and/or implementation process may be modified to better meet objectives. If periodic monitoring finds that conditions are not developing toward reference or desired conditions, stewardship and restoration plans may be updated with proposed modifications that move the forests or resources toward reference or desired conditions.

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DRAFT SEPT~~AUGUST~~ 2025

Forest Stewardship and Restoration Program ~~Implementation~~ 10-year Strategic Plan

2025 – 2034

Prepared by: Kevin Ceder, Stewardship Forester, Kitsap County Parks

September 30~~August 25~~, 2025

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Introduction

The Forest Stewardship and Restoration Program works to ensure the long-term health of the forests on Kitsap County parks by returning habitats, compositions, and structures toward historical and desired conditions. Stewardship of the forests on Kitsap County parks involves management actions and activities that maintain and enhance the forests to ensure that they will be passed to future generations of Kitsap County residents in healthy conditions (*sensu* Helms 1998). Restoration is the process of altering the conditions of forests that have departed from desired conditions through the management by past landowners so they will more closely align with desired conditions in the future (*sensu* Helms 1998). Desired conditions are guided by historical conditions and tempered by past and expected future climate changes. Using both stewardship and restoration over the coming years and decades the Forest Stewardship and Restoration Program seeks to create conditions on Kitsap County parks that are resilient to future expected climate change and provide high quality habitats that are refugia for wildlife and the people of Kitsap County.

This Forest Stewardship and Restoration ~~Implementation~~ 10-year Strategic Plan provides a high-level, system-wide plan to implement the updated Forest Stewardship and Restoration Policy (Ceder and Weber, in review) for the next 10 years – 2025 through 2034. To provide context for the program moving forward, the program's performance during its first eleven years – 2014 - 2024, including restoration thinning, road maintenance and construction, and financial returns, is reviewed. The scope and scale of the Forest Stewardship and Restoration Program's work is presented in a brief review of the Program's focus parks – larger forested parks that were previously managed as timberland. A statement of the Program's purpose and need provides the reasons for performing forest stewardship and restoration activities within the focus parks. Foreseeable forest stewardship and restoration activities to meet the purpose and need are then presented, which provide the core of the ~~implementation~~ strategic~~gebic~~ plan. Forest stewardship and restoration activities are summarized by activity type for each focus park for the short- (2025 – 2027) and long-term (2028 – 2034) with expected costs and revenues where they can be reasonably estimated. Expected revenues and costs of foreseeable forest stewardship and restoration activities, along with estimated program costs, are evaluated to determine ~~the potential to the Forest Stewardship and Restoration Program to remain financially sustainable~~operational sustainability.

Over the next 10 years some type of forest stewardship and restoration activities (such as assessment, monitoring, planning, and/or project implementation) are needed in all focus parks. Performing assessment and monitoring to determine current conditions and forest stewardship and restoration plan development will happen on all focus parks to update existing assessments and plans, monitor forest growth and development, undertake new assessments and plan development, and get the parks set up for a 10-year assessment and planning cycle moving forward. Approximately 2,376~~742~~ acres are planned for assessment and monitoring over the next three years, with an expected investment of approximately $35,640~~41,130~~[1] for contract forest

[1] Estimate based on initial estimates from potential contractors. This estimate is subject to change during implementation when actual prices are realized.

inventory data collection, with the remaining areas planned for the following 7 years. Project implementation of ~~F~~forest stewardship and restoration treatments would happen where assessment, monitoring and planning determine where treatments are both ecologically needed and appropriate. Preliminary a~~A~~ssessments using the best publicly-available, high level data suggests that thinning treatments are needed and appropriate on approximately 1,378~~527~~ acres during the next t~~en~~hree years~~, which may result in net revenues of approximately $377,000[2] after acquiring all necessary permits.~~. Additionally, there are approximately 655~~191~~ acres needing young stand thinning during the next t~~en~~hree years ~~, which would require an investment of $120,000[3]~~ to ensure that these stands remain vigorous and grow into healthy forests. ~~Over the coming three years the Forest Stewardship and Restoration Program is expected to have a net income from forest stewardship and restoration activities of approximately $300,100[4] after needed investments in forest inventory data collection and young stand thinning. This is likely insufficient to sustain the Forest Stewardship and Restoration program long-term without changes in the cost and/or revenue structures of the program.~~

Past Performance

During the first 11 years of the Kitsap County Parks Forest Stewardship and Restoration Program – from 2014 through 2024 – restoration treatments were conducted on approximately 2,467[5] acres of large, forested parks. Along with these treatments approximately 17.25 miles of roads were ~~constructed,~~ maintained, ~~or~~ improved, or constructed. A~~a~~pproximately 0.5 miles were abandoned, 6 water crossing structures removed, improved, or replaced, and 2 drainage structures were added. After accounting for road work and other costs, these treatments generated approximately $2,329,000 of revenue to the Parks Department.

Revenues generated by restoration treatments were sufficient to support the Forest Stewardship and Restoration program during this time, though revenues were highly variable between years (Figure 1). This is the result of highly variable sawlog prices, which ranged from a low of $68/ton in 2014 to a high of $120/ton in 2022, and generally flat pulp log prices ranging from $35-$39/ton. Generally, whenever sawlog prices were over $90/ton, thinning operations were profitable but were not profitable below this price. Profitable years also coincided with thinning projects in older forests with larger trees. Larger trees produce more sawlog volume and less pulp log volume resulting in higher valued log mixes that coincided with high logs prices resulting in some high returns to the Forest Stewardship and Restoration Program account~~.~~. By the end of 2023 that account had grown to approximately $700,000. 2024 was a transition year with the new Stewardship Forester, the

~~[2] Estimate based on publicly-available data, expected log market prices, and expected logging and hauling costs. This estimate is subject to change during implementation when actual market prices and costs are realized.~~

~~[3] Estimate is the midpoint of per-acre cost estimate ranges and would likely change during implementation when actual prices are realized. This may also be reduced through publicly-funded cost-sharing programs.~~

~~[4] Estimate is subject to change. See footnotes 1, 2, and 3.~~

[5] Differences exist between acreages reported in Forest Practices Applications and acres reported here as since there is no clear linkage between permitted area and area harvested in some years in available log sales reports.

addition of the Natural Resources Supervisor, and completion of remaining planned stewardship and restoration treatments. The additional position increased costs to the Forest Stewardship and Restoration Program while log prices decreased to $78/ton reducing net revenues and causing losses from the final stewardship and restoration treatments. By the end of 2024 the account balance had been reduced to approximately $350,000 as stewardship and restoration projects were paused pending additional assessments and planning.

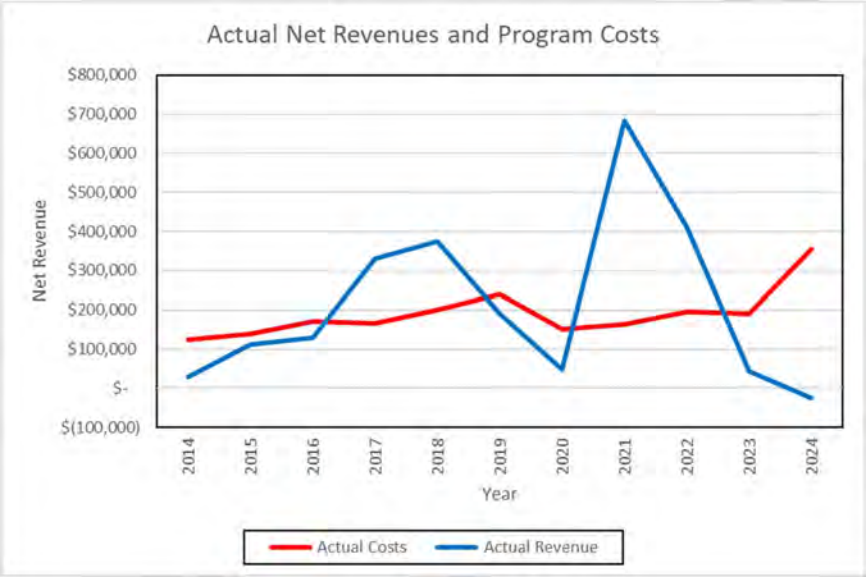

Figure 1: Actual revenue and costs for the Forest Stewardship and Restoration Program from 2014 – 2024. The large uptick in costs for 2024 is the addition of a second salary to the Forest Stewardship and Restoration Program budget.

Though the Forest Stewardship and Restoration Program did complete an extensive amount of revenue-generating thinning projects from 2011-2024, it did leave a backlog of non-commercial thinning and post-harvest monitoring which require investments rather than generating revenue. Management plans for North Kitsap Heritage Park, Newberry Hill Heritage Park, and Coulter Creek Heritage Park prescribed non-commercial treatments on approximately 280 acres, though it appears that these treatments were not implemented. In addition, there were areas that were not treated during commercial treatments because the trees were too small to be marketable, but no follow-up treatments were completed, though there is treatment need. Avoiding these treatments, which are needed to help maintain healthy, vigorous forests, avoided the costs of these treatments. Likewise, little, if any, post-treatment forest inventory data were collected. These data are needed to determine post-treatment conditions and provide a basis for future planning, avoiding costs of contracting or volunteer oversight. Neglecting these important steps of forest stewardship and restoration increased profitability during the first 10 years of the forest stewardship program, but pushed the costs of activities to the future because they will need to happen at some point.

See Appendix A – Past Stewardship and Restoration Activities for a detailed assessment of the past performance of the Forest Stewardship and Restoration Program.

Focus Parks

This plan focuses on 13 larger, forested Kitsap County parks (Table 1) where forest stewardship and restoration activities may take place over the next 10 years. These parks are unique among 75+ parks managed by Kitsap County because they were generally managed as production timberlands by previous owners, including the Washington State Department of Natural Resources and private landowners prior to County acquisition. Most forests in the parks are densely and uniformly stocked with Douglas-fir trees that were planted following harvesting[6]. Other areas were naturally regenerated with conditions that range from well-spaced, diversely sized trees to densely packed small diameter trees. Parks management objectives for these lands are to increase the size and diversity of trees in park forests and create forests that are resilient to climate change, insects, and disease through forest stewardship and restoration activities (Ceder and Weber, in review). See

[6] Planting following regeneration harvesting has been required since January 1, 1946. https://historylink.org/File/5287#:~:text=On%20January%201%2C%201946%2C%20the,logs%20that%20they%20have%20harvested. Last accessed 1/22/2025.

Appendix B - Focus Park Descriptions~~Appendix B - Focus Park Descriptions~~ for brief descriptions of each park.

Table 1: Kitsap County Parks where the Forest Stewardship and Restoration Program will focus from 2025 - 2034

Park Name	Region	Park Acreage
Bandix Dog Park	South	30
Banner Forest Heritage Park	South	636
Coulter Creek Heritage Park	South	1,549
Eglon Forest	North	707
Gordon Park	Central	54
Hansville Greenway	North	283
Illahee Preserve Heritage Park	Central	468
Newberry Hill Heritage Park	Central	1083
North Kitsap Heritage Park	North	818
Port Gamble Heritage Park	North	3,374
Rude Road Site	North	203
South Kitsap Regional Park	South	200
Wicks Lake Park	South	178
Total		9,583

Reserve areas

Across Forest Stewardship and Restoration Program focus parks there are approximately 1,645 acres (approximately 17% of the park area) of reserve areas. Most of the reserve areas, approximately 1,528 acres, are regulatory reserves – riparian management zones (RMZs) and wetland management zones (WMZs) – that are prescribed by the Washington Department of Natural Resources to protect stream and wetland resources during timber harvesting[7]. Within these areas some thinning may happen under specific conditions[8]. On Banner Forest there is an additional 117-acre voluntary reserve. This area is the portion of conservation easement held by the Great Peninsula Conservancy that is outside of regulatory reserves. This conservation easement was established soon after the park was transferred to Kitsap County and does not allow any tree cutting or harvesting within the easement as the easement is currently written. However, this may change, in consultation with Great Peninsula Conservancy, ~~-~~if assessments and planning reveal conditions that are not meeting the goals of the conservation easement.

[7] These areas are different than those prescribed under the Kitsap County Critical Areas Ordinance in that they are based on harvested areas remaining forest, with maintained ecological functions, rather than converted to non-forest uses and the loss of ecological functions.
[8] See WAC 222-30-020 (https://app.leg.wa.gov/Wac/default.aspx?cite=222-30-020, last accessed 1/22/2025) and WAC 222-30-021 (https://app.leg.wa.gov/Wac/default.aspx?cite=222-30-021, last accessed 1/22/2025)

Forest Stewardship and Restoration Purpose and Need

The forest stewardship and restoration purpose and need is taken from the Forest Stewardship and Restoration Policy (Ceder and Weber, in review).

The purpose for forest stewardship and restoration activities by the Forest Stewardship and Restoration Program is to create forest conditions on Kitsap County Parks that:

- Have compositions and structures that facilitate the growth of large, vigorous[9] trees that are resilient to insects, diseases, expected climate change, and potential wildfires,
- Provide high quality terrestrial, aquatic, and riparian habitats that have high ecological function and ecosystem services production,
- Maintain and enhance soil conditions and productivity.
- Allow opportunities for public and cultural foraging and gathering, and
- Are refugia for wildlife and humans in an increasingly developing and urbanizing environment.

Forest stewardship and restoration treatments are needed to create these conditions because:

- Forests on Kitsap County parks are primarily dominated by primarily small (10-15" average DBH) and medium (16-20" average DBH) with high to very high levels of inter-tree competition while lacking areas dominated by large (20-30" average DBH) and very large (>30" average DBH) trees[10] (Figure 2). This is the legacy of ~~the industrial~~industrial forest management by the previous owners of the park lands.
- Tree growth and vigor are reduced in high and very high competition forests where most trees near or approaching their maximum diameter given the number of trees in the forest.
- Tree health is reduced in high and very high competition forests where trees are stressed and increasingly susceptible, and succumbing~~,~~ to mortality from insects, diseases, and competition for limited resources.
- Ecosystem services, including high quality wildlife habitats, carbon sequestration, vegetation diversity, foraging and gathering opportunities, etc., are reduced in high and very high competition forests with slow-growing small to medium diameter trees, little, if any, functional standing dead and downed wood, dense, single-layer tree canopies, and suppressed understory vegetation.
- Ecological function is reduced, especially in previously harvested areas along streams and wetlands, in high and very high competition forests that lack functional large woody debris and trees that would become functional large woody debris, understory vegetation is suppressed and sparse, and deciduous trees are lacking.

[9] "Vigorous" refers to tree growth.
[10] Donato *et al.* (2020) and D. Danato (personal communication, April 4, 2024) suggest that pre-contact forests in the western Cascade Range and Kitsap County were primarily dominated large and very large trees based on historical disturbance regimes.

Where needed and appropriate[11], forest stewardship and restoration treatments would change forest conditions by:

- Removing trees to create additional room for lager trees and provide access to greater resources. This would include removing smaller trees to mimic competition-related mortality, groups of trees to mimic mortality from root diseases, and/or other treatments.
- Creating openness in the canopy and/or canopy gaps to allow increased light to reach the forest floor to increase growth of existing understory trees and vegetation and/or to establish a new cohort of trees and understory vegetation.
- Creating standing dead and downed wood where they are lacking to improve wildlife habitat and ecosystem function.
- Removing trees and creating openness or openings in the canopy would:
    - Increase tree growth, vigor, and resilience to insects, diseases, and expected climate change.
    - Improve overall forest health by reducing competition, stress, and impacts from insects, diseases, and expected climate change.
    - Improve ecosystem services, including carbon sequestration, wildlife habitat, species diversity, and foraging and gathering opportunities and ecosystem function through increased tree growth and understory vegetation production.

[11] All areas with treatment need may not be treated. This would include, but not limited to, areas excluded from treatment by applicable regulations or where environmental or societal concerns outweigh the ecological need for treatment.

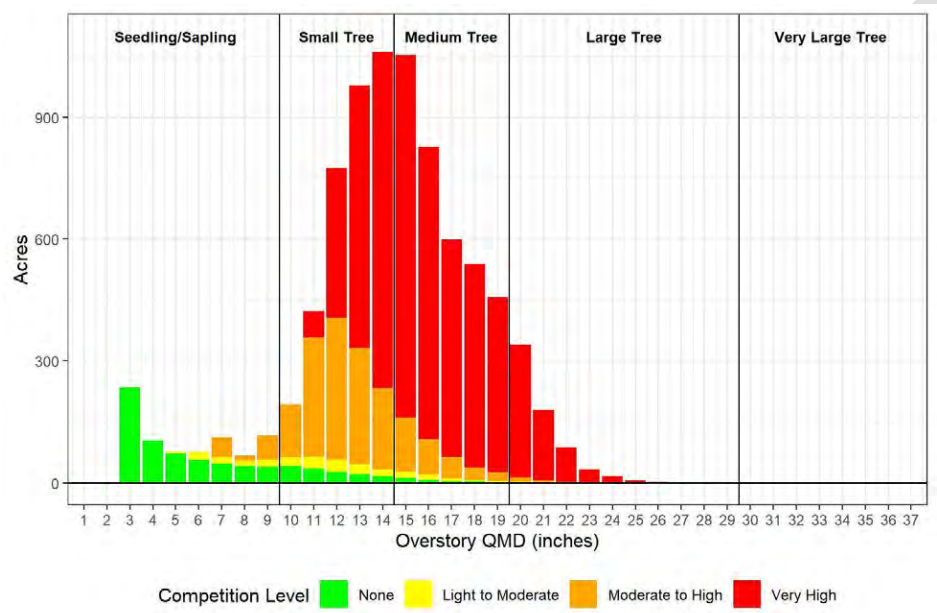

Figure 2: Acreages of parks by dominant tree sizes and competition levels. Dominant tree sizes are the average diameter of the largest 100 trees per acre. Competition levels are based on percentage of maximum stocking[12] as <25%, 25-35%, 35-55%, and >55% for None, Light to Moderate, Moderate to High, and Very High. Data for tree sizes, competition levels and maximum stocking from RS FRIS and other data from the Washinton Department of Natural Resources. Tree size classes, Seedling/Sapling, Small Tree, Medium Tree, Large Tree, and Very Large Tree based on O'Neil et al. *(2001).*

Stewardship and Restoration Activities

Stewardship and Restoration activities are the processes used to address forest stewardship and restoration needs and to move forests on Kitsap County parks toward desired conditions. These ~~activities are~~activities generally fall within one of five conceptual components of restoration (Figure 3). In practice these activities would be lumped into three categories – assessment and monitoring, planning and permitting, and implementation and management – where actions are similar, if not the same. Additional information about stewardship and restoration activities can be found in the Forest Stewardship and Restoration Policy document (Ceder and Weber, in review).

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[12] "Stocking" refers to the number of trees in an area with the maximum varying based on the sizes and species of trees.

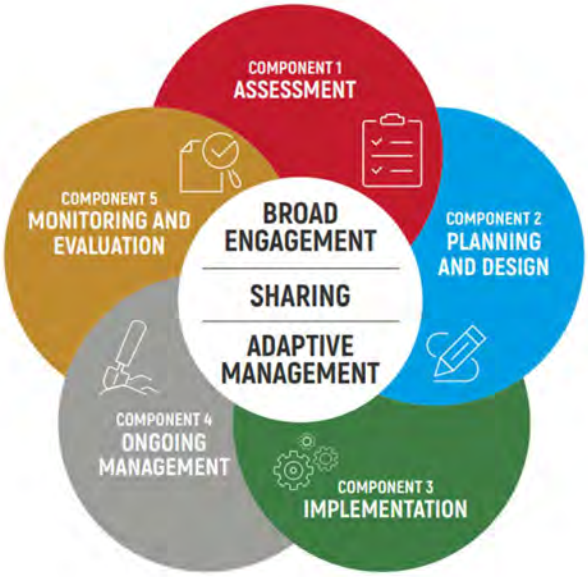

Figure 3: The conceptual framework for restoration that is guiding work by Kitsap County Parks. From SER: STANDARDS OF PRACTICE TO GUIDE ECOSYSTEM RESTORATION A contribution to the United Nations Decade on Ecosystem Restoration 2021–2030.

Stewardship and restoration activities may occur at the park and/or project level following this system-wide ~~implementation~~strategic plan ~~(PLANNING STRUCTURE GRAPHIC)~~:

- **Park-Level Activities** would happen prior to project-level activities, including**:**
  - **Park-Level Assessments** would collect data from across a park to quantify and qualify the existing conditions of the forest, vegetation and other resources in the park. Result~~s~~ from the park assessments would highlight locations and severities of forest health issues, departures form desired conditions, invasive species issues, and other indicators of forest stewardship and restoration treatment needs. During park-level assessments the public may be engaged through citizen science programs to help collect additional data to support assessments.
  - **Park-Level Planning** would use the results of park-level assessments to guide the design, specifications, and scheduling of forest stewardship and restoration treatments in the park to address treatment needs and begin moving the forests in the park toward desired conditions. During park-level planning public outreach will happen through open houses, field tours, and/or other means to ensure that the public understands the park stewardship recommendations based on assessment

data and have an opportunity to provide feedback about community desires and concerns.~~restoration plan and to get input in project-level scheduling.~~

- **Project-Level Activities** would happen following park-level activities and will be based on the findings or the park level plans. Project-level activities are where the work of forest stewardship and restoration happen to begin moving forests toward desired condition and include**:**
  - **Project-Level Assessments** may be needed to determine the presence and/or conditions of fine-scale resources within project areas such as wetlands, streams, seeps, springs, snags or other wildlife habitat features, vegetation communities, invasive species, etc. Results from these assessments would help guide the final scope and scale of project areas.
  - **Project-Level Planning and Permitting** would refine project specifications and schedules based on results from park and project-level assessments and acquire necessary project permits. Project-level planning would also address expected impacts of the project on the forest, vegetation, visual, and recreational resources in the project including during the project, the short term (1-5 years post-protect), and the long-term (6-30 years post-protect). During permitting, a SEPA (State Environmental Policy Act) checklist is completed to disclose environmental impacts and agencies, including the Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, and Tribes, to help ensure that detrimental impacts are avoided, minimized or mitigated.
  - **Project-Level Implementation and Management** would happen following project-level planning and permitting to implement forest stewardship and restoration activities including thinning, young stand thinning, habitat enhancement, road maintenance, construction, or abandonment, water crossing structure maintenance, replacement, or removal, etc.
  - **Project-Level Monitoring/Invasives Assessment** would happen during, or immediately after, implementation to ensure projects specifications were met. Additional monitoring and invasives assessments would happen at regular intervals following implementation to evaluate responses to stewardship and restoration treatments and catch any invasive species outbreaks before they become established. If additional actions are needed to achieve restoration goals, additional project-level assessment, planning, and permitting will occur prior to implementation.

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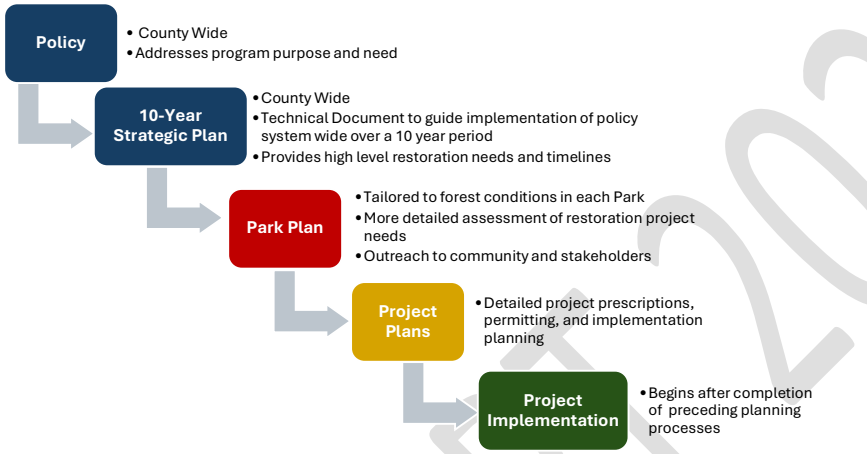

Figure 4: Planning Structure for Forest Stewardship & Restoration

~~ADD PLANNING PROCESS GRAPHIC~~

Over the next 10 years all area with the focus parks would have some type of stewardship and restoration activity (Table 2: Preliminary acreages for each stewardship and restoration activity type foreseen to meet forest stewardship and restoration needs in the near-term (2025, 2026-2027) and long-term (2028-2034)~~Table 2: Acreages for each stewardship and restoration activity type foreseen to meet forest stewardship and restoration needs in the near-term (2025, 2026-2027) and long-term (2028-2034)~~. The bulk of these activities are assessment and monitoring followed by planning and permitting. to get focus parks set up on a 10-year assessment and planning schedule. Permitting and management/implementation would be done on smaller area of the focus parks as specified by completed park-specific forest stewardship and restoration plans. See Appendix F for the 10-year planning schedule.

Table 2: Preliminary ~~A~~acreages for each stewardship and restoration activity type foreseen to meet forest stewardship and restoration needs in the near-term (2025, 2026-2027) and long-term (2028-2034)

Level	Activity Type	2025	2026-2027	2028-2034
Park	Assessment~~/Monitoring~~	~~857~~	2,418~~1,913~~	7,146~~6,924~~
Park	Planning	~~857~~	1,600~~1,454~~	7,964~~7,383~~
Project	Planning and Permitting	1~~1030~~	~~52397~~	~~928~~1,859
Project	Management/Implementation-Thinning/Roadwork	1~~1030~~	~~52397~~	1,204~~928~~
Project	Management/Implementation-	0	~~0191~~	655~~464~~

	Young stand thinning			
Project	Project Monitoring and Invasives Assessment	11~~030~~	52~~807~~	1,85~~0~~

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Park-Level Activities

Activities at the park-level scale include park assessment and park planning. During park assessment data are collected from across a park, such as forest inventories, road inventories, forest health assessments, stream and wetland surveys, vegetation sampling, etc., to give an overall view of the current conditions in the park. Park planning uses the results from the park assessment to determine what conditions may exist that have departed from desired conditions and may benefit from forest stewardship and restoration projects. Treatment specifications, and schedules are determined to address departures and expected short- and long- term effects are determined. Preliminary schedule of Park-level activities is included in Appendix E - Kitsap County Parks Forestry Program Planning Schedule 2025-2034.

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Park Assessment ~~and Project Monitoring~~

Assessment ~~and monitoring~~ activities are used to describe current conditions, determine differences from desired conditions, and progress made developing toward desired conditions. This generally takes place before other activities, such as thinning, but may also happen after activities, to determine post-treatment conditions, or while treatments are occurring to ensure contract compliance. Work done during assessment and monitoring are similar, if not the same, and often overlap each other to close the loop on a forest stewardship and restoration cycle (Figure 3).

Assessment ~~and monitoring~~ are needed on all parks over the next 10 years to support proposed forest stewardship and restoration planning, permitting and implementation/management activities. Currently, many parks have either not had assessments, the timing of the assessments are unknown, or are currently over 10 years old or will be within the next 10 years. Assessments will be prioritized based on lack of assessment or assessment age along with potential restoration needs (Table 3). Accomplishing this would require assessments on an average of approximately 950 acre per year.

Meeting the proposed schedules and data quality needs will require investments in professional data collection[13]. Past forest inventory data collection relied on trained volunteers to collect pre-harvest inventory and post-harvest monitoring data to meet past program needs. Going forward this paradigm would likely not produce the data quantity and quality needed to support planned stewardship and restoration activities. Contracting professional forest inventory data collection would ensure high quality data are collected in a timely manner and meet proposed stewardship and restoration activity schedules (Table 3) and meet the needs for grant applications, forest certification, and carbon projects. Initial estimates for contract forest inventory data by American Forest Management through the current professional services agreement is approximately $15/acre – approximately $14,250/year to meet data collection needs. Contract inventory and monitoring data collection can be easily overseen and managed with current staffing levels. Performing the

[13] Other groups performing similar forest restoration, including GPC, rely on contract data collection.

needed amount of data collection with trained volunteers, interns, or staff would require 1-2 additional FTEs per year, which is more than the cost of contracting. Additional resource inventories, such as road and culvert conditions, may be collected by Parks staff, interns, and/or trained volunteers.

Table 3: Preliminary park assessment schedule.

Year(s)	Park(s)	Estimated Acreage
2025	Port Gamble Forest[14]	110
~~2025~~-2026-2027 **~~2026-2027~~**	Rude Road Site	204
	Eglon Forest	707
	Banner Forest	636
	Gordon Park	53
	North Kitsap	818
2028-2034	Illahee Preserve	459
	Port Gamble	3,373[15]
	Newberry Hill	1,083
	Coulter Creek	1,549
	Hansville Greenway	296
	South Kitsap	200
	Wicks Lake	156
	Bandix Dog Park	30

Stewardship and Restoration Research/Case Studies

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Assessment and monitoring in focus parks provides opportunities for forest stewardship and restoration research. Little forest restoration research exists specifically for lowland Douglas-fir forests of the Puget Sound Trough Forests, like those in Kitsap County. This provides an opportunity to start monitoring research projects in focus parks to evaluate the forests' responses to stewardship and restoration treatments. These projects would provide opportunities for collaboration with universities, colleges, and local schools through engaging faculty and students in designing and implementing the research projects. Results from these monitoring projects would be made available to the public, practitioners, and the scientific community through publication in scientific journals, presentations at scientific conferences, or other outlets.

Park Planning ~~and Permitting~~

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Park-level planning ~~and permitting takes~~uses results from park assessments and monitoring ~~and~~ to creates park- ~~or project-~~specific stewardship and restoration plans. During park planning, park-specific assessment results ~~would~~ are~~be~~ used to determine stewardship and restoration treatment needs for the park. Treatment prescriptions and schedules would be created to address restoration

[14] Four areas will be assessed prior to forest restoration treatments. The remainder of the park will be assessed at a later time. Additional areas, such as regenerated and released harvest units may be assessed as well.

[15] Actual acreage will depend on the area released from the timber deed prior to assessment.

needs along with evaluations of expected short- and long-term treatment effects, including how forests in the park are expected move toward desired conditions.

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Park-level planning is needed on all focus parks during the next 10 years to support forest stewardship and restoration. Plans are developed or updated using park-specific assessment data and results to determine park-specific stewardship and restoration needs, develop project specifications and prescriptions to meet the needs, a schedule for projects, and quantify and/or qualify expected short- and long-term outcomes from the treatments. Resulting plans would provide:

1. A data driven justification for stewardship and restoration treatments in the park that supports the goals and objectives outlined in the Forest Stewardship and Restoration Policy (Ceder and Weber, in review).
2. A schedule for projects.
3. Expected short- and long-term effects from the treatments, which may include:
    a. Impacts on recreational opportunities
    b. Changes in forest conditions from treatments
    c. How forests are expected to move toward desired conditions

~~Additionally, some projects will be planned in parks where stewardship and restoration plans are in place or where the park is currently a working forest. In these cases, planning would be limited to specific treatment areas where needs are known. Planning would be focused on developing project specifications and prescriptions to address treatment needs.~~

Outreach and Collaboration

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Outreach and collaboration would happen during the planning process to communicate assessment findings, stewardship and restoration needs, and proposed projects to the public and other stakeholders. This would also be an opportunity to solicit comments and feedback about the park stewardship and restoration plan, which would be used to help refine the plan. See the Policy (Ceder & Weber, in review) for further description of outreach and collaboration activities.

To ensure that plans updated on a 10-year schedule moving forward, parks staff, lead by the stewardship forester, would complete one park per year. Park planning would follow completed park assessments. A preliminary schedule for park planning is in Table 4. These park level plans will be presented to the Board of County Commissioners for input and final review

Table 4: Preliminary schedule for park plan development or updates.

Year(s)	Park(s)	Acreage	Current Plan Year
2025	Port Gamble Forest[16]	110	2015
2026-2027	Rude Road Site	204	No current plan
	Eglon Forest	707	No current plan

[16] Four areas will be assessed prior to forest restoration treatments. The remainder of the park will be assessed at a later time. Additional areas, such as regenerated and released harvest units may be assessed as well.

	Banner Forest	636	2015[17]
	Gordon Park	53	No current
2027-2028	North Kitsap	818	2015[18]
2028-2034	Illahee Preserve	459	2003
	Port Gamble	3,373[19]	No current plan
	Newberry Hill	1,083	2013
	Coulter Creek	1,549	2017/2021[20]
	Hansville Greenway	296	2012
	South Kitsap	200	No current plan
	Wicks Lake	156	2022
	Bandix Dog Park	30	No current plan

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Project-Level Activities

Projects proposed in park-level plans will receive additional assessment and planning before implementation and management. Additionally, some projects will be planned in parks where stewardship and restoration plans are in place or where the park is currently a working forest. In these cases, planning would be limited to specific treatment areas where needs are known. Planning would be focused on developing project specifications and prescriptions to address treatment needs.

Preliminary analyses of remotely sensed data and limited field review of forests on Kitsap County Parks suggest that approximately 1,970 acres of forest and approximately 8.5 miles of road may need some level of forest restoration activities (Table 5). The scope, scale, and timing of these currently foreseen stewardship and restoration projects will be determined once park and project level assessments and planning have occurred. Until park and project planning is completed acreage for thinning activities and mileage of road maintenance are very preliminary to support program work planning. These acreage and mileage values are expected to change, possibly significantly, during planning.

[17] Plan was created by the Banner Forest Watch group independently of Kitsap County Parks and covers all management aspects for Banner Forest providing little guidance for forest stewardship and restoration.
[18] No prescribed treatments completed except minimal thinning completed in only one small unit.
[19] Actual acreage will depend on the area released from the timber deed prior to assessment.
[20] 2021 update added Square Lake to the Coulter Creek Forest Stewardship and Restoration Plan.

Table 5: Currently foreseen project level planning, permitting, implementation and management for forest stewardship and restoration activities. ***Activities may occur at some point within the year ranges presented. Actual timing, acreage, and road mileage will be determined during park-level planning.***

Estimated Year(s)*	Park	Potential Activities	Preliminary Acreage Estimate[21]	Preliminary Road Mileage Estimate[22]
* Years are an estimation to support work planning. Actual timing, acreage, and road mileage will be determined during park-level planning.				
2025	Port Gamble Forest[23]	Thinning	110	0.5
		Road Maintenance		0.5
	North Kitsap Heritage Park	Culvert cleaning	NA	NA
2026-2027	Rude Road Site	Thinning	19	0
	Gordon Park	Thinning	33	0
TBD	Eglon Forest	Thinning	390	
		Road Maintenance		3.5
		Young Stand Thinning[24]	98	
	Banner Forest Heritage Park	Thinning	315	NA
		Road Maintenance		2.0
		Young Stand Thinning[25]	93	NA
	North Kitsap Heritage Park	Thinning	333	
		Road Maintenance		TBD[25]
		Young Stand Thinning[25]	127	NA
TBD	Newberry Hill Heritage Park	Thinning	97	
		Road Maintenance		1.0
		Young Stand Thinning[25]	83	NA
	Coulter Creek Heritage Park	Thinning	69	0.5
		Road Maintenance		0.5
		Young Stand Thinning[25]	44	NA
	Bandix Dog Park	Thinning	12	0
	Port Gamble Forest	Young Stand Thinning[25]	78	NA
	Rude Road Site	Young Stand Thinning[25]	132	NA

[21] Preliminary acreage estimate developed for remotely sensed data and limited field review. These acreages will change during park and project level planning.
[22] Preliminary road maintenance mileage estimated developed from remotely sensed data with limited field review. These mileages will change during park and project level planning.
[23] A project level plan will be developed for four areas will be planned prior to forest restoration treatments.
[24] Timing of young stand thinning may change depending on the outcome of a grant application that would cover all young stand thinning costs.
[25] Road maintenance needed will be determined during planning when known access issues are addressed.

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~~Year(s)~~	~~Park~~	~~Activity~~	~~Preliminary Acreage Estimate[26]~~	~~Preliminary Road Mileage Estimate[27]~~
~~2025~~	~~Port Gamble Forest[28]~~	~~Thinning~~	~~110~~	~~0.5~~
		~~Road Maintenance~~		~~0.5~~
	~~North Kitsap Heritage Park~~	~~Culvert cleaning~~	~~NA~~	~~NA~~
~~2025-2026~~	~~Rude Road Site~~	~~Thinning~~	~~19~~	~~0~~
~~2027-2034~~	~~Eglon Forest~~	~~Thinning~~	~~390~~	
		~~Road Maintenance~~		~~3.5~~
		~~Young Stand Thinning[29]~~	~~98~~	
	~~Banner Forest Heritage Park~~	~~Thinning~~	~~315~~	~~NA~~
		~~Road Maintenance~~		~~2.0~~
		~~Young Stand Thinning[25]~~	~~93~~	~~NA~~
~~2028-2034~~	~~North Kitsap Heritage Park~~	~~Thinning~~	~~333~~	
		~~Road Maintenance~~		~~TBD[30]~~
		~~Young Stand Thinning[25]~~	~~127~~	~~NA~~
~~2030-2034~~	~~Newberry Hill Heritage Park~~	~~Thinning~~	~~97~~	
		~~Road Maintenance~~		~~1.0~~
		~~Young Stand Thinning[25]~~	~~83~~	~~NA~~
	~~Coulter Creek Heritage Park~~	~~Thinning~~	~~69~~	~~0.5~~
		~~Road Maintenance~~		~~0.5~~
		~~Young Stand Thinning[25]~~	~~44~~	~~NA~~
	Gordon Park	Thinning	33	0
	Bandix Dog Park	Thinning	12	0
	Port Gamble Forest	Young Stand Thinning[25]	78	NA
	Rude Road Site	Young Stand Thinning[25]	132	NA

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Project Assessment

~~A BIT ABOUT PROJECT ASSESSMENT~~Forests within proposed project areas will receive detailed project area assessments to further describe and quantify conditions within the project unit and support project planning. The intent of the assessments is to take a good, hard look at the forest before final planning and implementing forest stewardship and restoration activities. These assessments may include, but are not limited to:

- **Plot-based forest inventory data collection** to quantify tree sizes, numbers, species, and conditions. These data are used to support silvicultural prescription development to

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~~[26] Preliminary acreage estimate developed for remotely sensed data and limited field review. These acreages will change during park and project level planning.~~
~~[27] Preliminary road maintenance mileage estimated developed from remotely sensed data with limited field review. These mileages will change during park and project level planning.~~
~~[28] A project level plan will be developed for four areas will be planned prior to forest restoration treatments.~~
~~[29] Timing of young stand thinning may change depending on the outcome of a grant application that would cover all young stand thinning costs.~~
~~[30] Road maintenance needed will be determined during planning when known access issues are addressed.~~

address ecological needs and to forecast expected short- and long-term effects from stewardship and restoration activities.

- **Aquatic resource location and/or delineation** to quantify the scope and scale of these sensitive resources. These data are used to support treatment area and resource protection buffer delineations to minimize potential adverse impacts from stewardship and restoration activities.
- **Wildlife habitat evaluations** describe and quantify forest elements – snags, downed logs, forage, fruit, and/or mast producing vegetation, etc. – that contribute to wildlife habitats. These data help guide treatment specifications and prescriptions and help understand how stewardship and restoration activities may impact wildlife habitats.
- ~~**Road condition surveys**~~
- **Vegetation/invasive species ~~surveys~~** describe and quantify vegetation communities and compositions, including extant invasive species. These data are used to guide treatment specifications and prescriptions and what may be expected following stewardship and restoration treatments.
- **Road condition surveys** locate potential issues with existing forest roads that may need to be addressed during stewardship and restoration activities. Addressing road issues, including drainage and water crossing structures, during stewardship and restoration activities helps minimize adverse impacts to aquatic resources.
-

Project Planning~~Permitting~~

Detailed project plans are developed using the results of assessments to support permitting and implementation. Elements of project plans may include, but

~~Treatment schedules specified in forest stewardship and restoration plans would be used to schedule project permitting.~~ are not limited to:

- **Delineating and marking restoration area boundaries and buffers** to define the extent of the area receiving restoration treatments. Any sensitive areas – wetlands, streams, etc. – are delineated and buffers marked to protect these resources. Boundaries will be delineated and mapped in a GIS with boundaries marked with flagging, or other means, in the forest.
- **Refining treatment specifications and prescriptions** to further describe why restoration treatment are needed and to specify the types, sizes, and species of trees that are to be retained or cut during treatments. Expected conditions following treatments are specified to support evaluations of expected future effects and conditions. Treatment specifications, desired conditions, and expected future conditions may be guided by results from forest growth model simulations using models like the USFS's Forest Vegetation Simulator (FVS)[31]. Where road work is needed, estimate the scope and scale of the work needed.
- **Estimating potential volume removals and financials** to support project contracting and project implementation. Expected volume removals predicted by FVS during treatment

[31] Publicly available from the USDA Forest Service at: https://www.fs.usda.gov/managing-land/forest-management/fvs (Last accessed 29 September 2025)

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specification and prescription development are compiled to be included in contract bid packages. This information will also be used to develop preliminary financial figures for the projects to assess the potential impacts on County budgets.

- **Scheduling stewardship and restoration projects** to help minimize adverse impacts on sensitive resources, wildlife and/or parks users.

Project Permitting

Necessary permits for projects would be procured from appropriate agencies (e.g. Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, Kitsap County Department of Community Development, etc.) with sufficient lead time to meet treatment schedules. Permitting may include, but not limited to:

- **Forest Practices Application/Notification (FPA)** – Submitted to the Washington Department of Natural Resources for thinning projects, forest road construction/betterment, or other activities as required. These activities within parks include a review by an interdisciplinary team that includes representatives from the Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, and Native American Tribes, who can recommend changes to the project to protect resources.
- **Forest Practices Hydraulic ~~Application Permit~~ (FPHPA)** - Submitted the Washington Department of Natural Resources for projects involving water crossing structures in forest roads over typed water. These activities also include a review by an interdisciplinary team that includes representatives from the Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, and Native American Tribes, who can recommend changes to the project to protect resources.
- **State Environmental Protection Act (SEPA) Checklist** – Submitted to Washington Department of Natural Resources or Washington Department of Ecology for thinning, road, and other projects in parks
- **Kitsap County Timber Harvest Permit** – Submitted to Kitsap County Department of Community Development when areas of parks would be converted from timber to not-timber use (such as a parking lot or sports field).

Permit applications would be prepared by Parks staff. However, some aspects of preparation for permitting, such as marking treatment area boundaries, riparian management zones, wetland management zones, etc. prior to submitting the FPA, may be completed by contractors through the professional services agreement with American Forest Management[32]. ~~Current foreseeable permitting needs are shown in (Table 5).~~

~~*Table 5: Expected permitting for forest stewardship and restoration activities.*~~

Year(s)	Park(s)	ctivity	Estimated Acreage

[32] Assisting in FPA development is included in the scope of work for the professional services agreement and included in the commission price.

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~~2025~~	~~Port Gamble Forest[33]~~	~~Thinning~~	~~110~~
	~~North Kitsap Heritage Park~~	~~Culvert cleaning~~	~~NA~~
~~2025-2026~~	~~Rude Road Site~~	~~Thinning~~	~~20~~
~~2027-2034~~	~~Egton Forest~~	~~Thinning, Roadwork~~	~~TBD~~
	~~Banner Forest~~	~~Heritage Park~~ ~~Thinning, Roadwork~~	~~TBD~~
~~2028-2034~~	~~North Kitsap Heritage Park~~	~~Thinning, Roadwork~~	~~TBD~~
~~2030-2034~~	~~Newberry Hill Heritage Park~~	~~Thinning, Roadwork~~	~~TBD~~
	~~Coulter Creek Heritage Park~~	~~Thinning, Roadwork~~	~~TBD~~
	~~Gordon Park~~	~~Thinning, Roadwork~~	~~TBD~~
	~~Bandix Dog Park~~	~~Thinning, Roadwork~~	~~TBD~~

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Permitting beyond 2026 will depend on yet to be completed park-specific forest stewardship and restoration plans and associated schedules. However, it is expected that permitting would happen continuously to support treatments on approximately 197~~200~~ acres[34] of stewardship and restoration projects per year, including approximately 132 acres of thinning and approximately 65 acres of young stand thinning. The scope and scale of permitting would depend on plan schedules and treatment priorities.

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Project Implementation and Management

Implementation and ~~management follow~~management permitting to put projects in place on the ground to address forest stewardship and restoration needs. With plans, prescriptions, and permits in-hand, projects would be implemented to address forest stewardship and restoration needs. The types of treatments that would be used to move forests toward desired conditions may include, but is not limited to:

- **Thinning and uneven-aged regeneration harvesting** – Remove a portion of the trees to create additional room for the remaining trees to grow, enhance understory vegetation, and/or establish and new cohort of trees. These types of activities are consistent with principles of Ecological Silviculture (Palik et al. 2020), Ecological Forest Management (Franklin *et al.* 2018), and Active Intentional Management (Carey 2007). These activities are also consistent with the ecological harvesting allowed in structurally complex and older forests under Commissioner's Order Number 202516 (Upthegrove 2025). These treatments produce merchantable trees that would typically generate revenue ~~to fund Forest Stewardship and Restoration Program activities~~. Any revenues generated would depend on current log markets and logging and hauling costs, which can vary greatly.
- **Young stand thinning** – Remove a portion of the trees in a young stand to create additional room for the remaining trees to grow and develop. These treatments would require

[33] ~~A project level plan will be developed for Ffour areas will be planned prior to forest restoration treatments.~~
[34] Treatment acreage would be limited to approximately 200 acres per year to ensure that harvest levels are limited to approximately 2 million board-feet per year, which would maintain Small Forest Landowner status with the Washington Department of Natural Resources.

investments because the trees removed are too small to be merchantable. Current estimates for this type of thinning range from $300 - $750/acre.

- **Road construction, maintenance, and/or betterment** – Build, brush, grade, repair, rock, ditch or otherwise bring road conditions up to standard for hauling. These treatments would only be used in conjunction with thinning treatments where hauling is needed to bring in equipment and haul out logs. Estimates of cost based on past road work are approximately $20,000/mile, which is equivalent to approximately 4% of the gross timber proceeds.

Thinning and Road Projects

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Preliminary assessments suggest that between 2025 and 2034 ~~E~~ecological t~~Forest stewardship and restoration t~~hinning ~~g~~ projects may be needed on approximately 1,315 acres ~~to~~ to address forest stewardship and restoration needs (Table 5) ~~are expected to be implemented on approximately 1,426 acres between 2025 and 2034~~. To support these treatments road maintenance, betterment, and/or construction projects are expected on approximately 8.5 miles of road (Table 5). Until at least 2027 ~~T~~these projects would be performed by contractors through the professional services agreement with American Forest Management underwith Parks staff oversight ~~by Parks staff~~. ~~Currently foreseen thinning and road projects are shown~~n ~~in (Table 6).~~ Preliminary areas needing treatment are shown in Appendix C – Preliminary Park Treatment Needs.

~~*Table 6: Currently foreseeable short-term (2025, 2026-2027) and long-term (2028-2034) thinning and road projects*~~

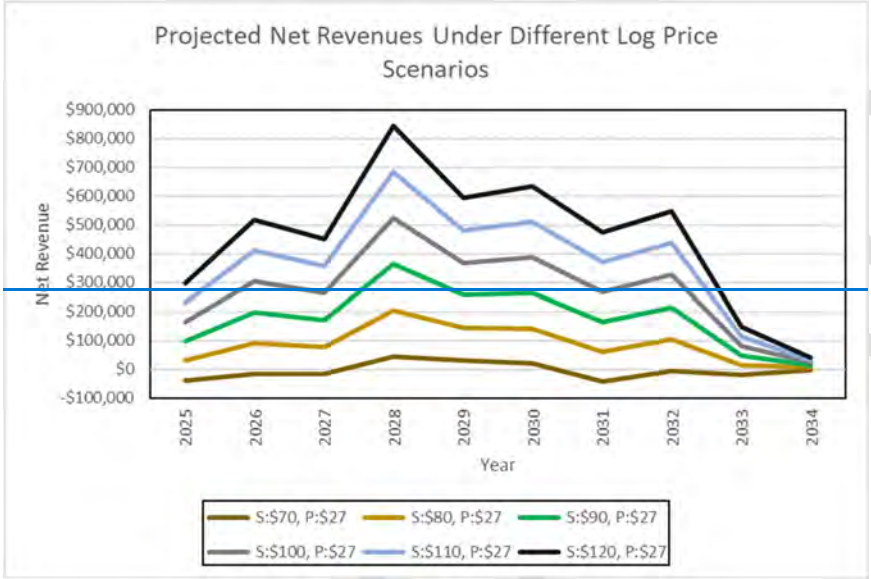
~~Year(s)~~	~~Park(s)~~	~~Thinning acreage[35]~~	~~Road mileage~~	~~Estimated Net Revenue[36]~~
~~2025~~	~~Port Gamble Forest[37]~~	~~110~~	~~Minimal[38]~~	~~$66,000~~
	~~Rude Road Site~~	~~20~~	~~Minimal[39]~~	~~$30,000~~
~~2026-2027~~	~~Eglon Forest~~	~~397~~	~~2~~	~~$368,000~~
~~2028-2034~~	~~Banner Forest, North Kitsap Heritage Park, Newberry Hill Heritage Park, Gordon Park, Bandix Dog Park~~	~~928[40]~~	~~6.5~~	~~TBD~~

~~Year(s)~~	~~Park(s)~~	~~Thinning acreage~~	~~Road mileage~~	~~Estimated Net Revenue~~

~~[35] Preliminary estimate of thinning acreage. This will be refined during planning and permitting processes.~~
~~[36] Estimated net revenue based on simulations with publicly available data using an estimated aggregate sawlog price of $90/ton, average past logging and hauling costs, 5.7% AMF commission, and 4% road costs. These will be refined following pre-harvest or assessment inventory data collection.~~
~~[37] Four areas will be planned prior to forest restoration treatments.~~
~~[38] Minimal road work would be needed to for these treatments because previous treatments have brought roads up to standard.~~
~~[39] Access road for this site is used by neighboring residents with status is currently unknown. Some road grading and/or rocking may be needed pending road status and/or agreements with neighbors.~~
~~[40] The location and schedule of thinning and road work will be determined after assessment and planning~~

~~**2025**~~	~~Port Gamble Forest~~ ~~Rude Road Site~~	~~110~~ ~~20~~	~~Minimal~~ ~~Minimal~~	~~$66,000~~ ~~$30,000~~
~~**2026-2028**~~	~~Banner Forest~~	~~426~~	~~3~~	~~$691,000~~
~~**2029-2034**~~	~~Eglon Forest,~~ ~~North Kitsap,~~ ~~Newberry Hill,~~ ~~Gordon Park,~~ ~~Bandix Dog Park~~	~~897~~	~~5.5~~	~~TBD~~

~~Revenue simulations suggest that combined thinning and road projects would generally generate revenue for the Parks Department (Figure 4). Potential revenues for each log price scenario are highly variable because they depend on the sizes and types of trees being removed and the acreage available for restoration treatments. Revenues would start lower in 2025 when forest stewardship and restoration projects resume on approximately 130 acres of Port Gamble Forest and the Rude Road Site where forests are excessively dense and need treatment. Treatments will predominantly remove smaller trees that produce a larger proportion of low-valued logs. Revenues would increase in 2026 and 2027 as stewardship and restoration projects start in Eglon Forest where more area needs treatment and trees are larger and expected to product a lower proportion of low-valued pulp log volume. Revenues from 2028-2035 are represents estimates of what may be possible under one of many potential scenarios. A notable aspect to the scenarios is the reduction in revenues in 2033 and 2034. This is the point when the first thinning activities are wrapping up but before second thinning activities, which may begin 20 years after the first thinning, might begin. Without areas needing a second thinning during this time, under the current financial model there would need to be additional areas that need thinning to bridge the revenue gap. These estimates will be better defined following park assessments and planning.~~



~~Figure 54: Projected net revenue generated from thinning and road project under different sawlog price scenarios. Sawlog $70/ton (S:$70) to $120/ton (S:$120) to represent a range of potential prices based on what has been realized. Pulp prices are held constant recognizing the poor pulp market conditions with few pulp mills in western Washington.~~

Young Stand Thinning Projects~~:~~

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Across the focus parks there are approximately 655 acres of young stands, which contain little, if any, merchantable wood to defray costs~~. This work would require an investment of approximately $196,500 - $491,250 over the next 10 years~~ (~~Table 7~~Table 5, Appendix C – Preliminary Park Treatment Needs). These areas were planted at high densities by previous landowners with the assumption that there would be young stand thinning at some point to make space for the best trees to grow larger until they were harvested. Without the young stand thinning these stands have become extremely dense and tree growth has slowed greatly. Delaying thinning would result in trees with very small crowns and tall, slender stems that would not respond well to thinning and be at risk of heavy tree mortality from competition, insects, and diseases. Investments in young stand thinning are needed in the near-term, while trees have sufficiently large crowns to respond well to thinning, to facilitate the development of vigorous, healthy forests, and begin developing complex stand structures that are beneficial to wildlife. Initial assessments of these areas show that approximately 445 acres across the focus parks should be thinned within the next 5 years to prevent excess competition mortality and encourage a return to vigorous tree growth The remaining 210 acres have lower competition levels and may wait for 5-10 years before treatment. ~~Young stand thinning is expected to start in 2026 in Banner Forest, which would allow time to pursue a cost-share project with the Washington Department of Natural Resources. Through this project, the Washington Department of Natural Resources would cover approximately 50% of the cost of implementation. This timing would also allow thinning projects to generate revenue to cover the~~

~~remaining young stand thinning costs. Additional cost-share projects or grants may help cover a portion of the cost of other projects.~~

~~*Table 7: Needed young stand thinning project with expected investment*~~

~~Years~~	~~Park(s)~~	~~Acreage~~	~~Estimated investment~~
~~**2026-2029**~~	~~Banner Forest~~	~~93~~	~~$27,900 - $69,750[41]~~
	~~Eglon Forest~~	~~98~~	~~$29,400 - $73,500~~
	~~North Kitsap Heritage Park~~	~~127~~	~~$38,100 - $95,250~~
	~~Newberry Hill Heritage Park~~	~~83~~	~~$24,900 - $62,250~~
	~~Coulter Creek Heritage Park~~	~~44~~	~~$13,200 - $33,000~~
~~**2030-2034**~~	~~Port Gamble Forest~~	~~78~~	~~$23,400 - $58,500~~
	~~Rude Road Site~~	~~132~~	~~$39,600 - $99,000~~

Project Monitoring and Adaptive Management~~and Invasives Assessment~~

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Project monitoring and adaptive management following the implementation of forest stewardship and restoration activities to ensure that forests are developing toward desired conditions as specified in park and project plans. Monitoring involves measuring and observing forest, vegetation, and road conditions at intervals following treatments and may include, but not be limited to:

- **Forest inventory data collected after treatments** to determine the types, numbers, sizes, and distributions of trees retained during treatment. Data collection immediately following, or during, treatment helps ensure that the contractor complies with treatment specifications and prescriptions. Data collected 5 and/or 10 years following treatment helps determine how the trees are responding to the increased space created during the treatment: How much bigger are the trees? Have new trees regenerated and, if so, what species are they?

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- **Vegetation/invasive species surveys** to determine how vegetation has responded to the increased light hitting the forest floor. Data collected the growing year following completion of stewardship and restoration treatments and at 1–3-year intervals help monitor ~~gives views of~~ how vegetation is responding. How much has vegetation cover increased? What species are establishing or reestablishing? Have invasive species established in disturbed areas like landing and skid trails?

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- **Habitat ~~feature~~element monitoring** ~~todo~~ determine how species use snags, habitat piles, and large log analogs created during and after the stewardship and restoration project. What species are utilizing the habitat features and how? Are habitat features maintaining or developing desired microhabitat characteristics?

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Information collected during monitoring will provide information about how the forest is developing, whether it is progressing toward desired conditions, and if there are any issues that need to be addressed through adaptive management. If understory vegetation hasn't responded as expected, then plantings to increase cover and diversity may be needed. If understory trees have not

[41] ~~Currently in discussions with the Washington Department of Natural Resources Service Forester about developing a forest health cost share project where the DNR would cover half the cost of the young stand thinning.~~

established as expected, tree planting may be needed. If invasive species have established, they may need to be removed by pulling, mowing, cutting, or other means. Implementing actions such as these in an adaptive management framework if/when they are needed will help ensure that forests and vegetation communities are developing toward desired conditions following stewardship and restoration treatments.

Monitoring and adaptive management would largely be performed by Parks staff, but opportunities may arise to collaboration with academic researchers, academic programs, students, community members, or other groups working on natural resources issues.

~~High level monitoring plan. Check project areas annually for X years, then on a rotating X year schedule. Exactly what's measured depends on project but largely includes progress towards resto goals laid out in project plans, monitoring for invasive species, etc. Monitoring will largely be performed by staff but some opportunities for collaboration with academic researchers may be possible. If issues are identified or project is not progressing towards goals, adaptive management actions will be planned and initiated.~~

Activity Costs and Revenues

Forest stewardship and restoration activities that remove trees or maintain and improve roads are typically very high-cost operations (Table 6). However, this cost may be defrayed when logs that are removed during forest stewardship and restoration activities ~~that can be~~are sold to produce wood products.

Thinning Costs and Revenues

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Thinning operations are high cost but, when logs from removed trees are sold, they may be performed at little to no cost or may even return limited revenues to the County. By far the biggest costs are logging and hauling. This is reflective of ~~very expensive~~costly, high-tech equipment that is used to selectively remove trees, process them into logs, and then move the logs to a road to be loaded onto a truck. While expensive, this equipment allows the operators to minimize impacts to soils and remaining trees in the project area. Logging costs can vary based on tree sizes – areas with smaller trees are more expensive than larger trees - and terrain – steeper ground is more expensive than flatter ground. Hauling costs vary based on how far the purchaser's location is from the project area. Based on recent project costs, the overall cost to remove trees and move the logs to a purchaser may range from $50.00 - $60.50/ton.

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Table 6: Costs table from Port Gamble 2025 Stewardship and Restoration Project. Logging cost is the amount charged per ton of logs to cut trees, process them into logs, then move the logs to the truck. Hauling costs are the amounts charged per ton of logs to move the logs from the project are to log purchaser destinations. Road costs are the cost per 100-feet (one station) to upgrade roads for hauling. AFM commission is a percentage of gross logs sales to contract operators, administer the contract, and market logs from the project.

Cost Item	Cost per Unit	Estimated Units	Total Cost
Logging and Hauling			

Logging (OBT)	$41.50/ton	4,950	$205,425
Hauling (Sawlogs: Manke)	$19.00/ton	4,100	$77,900
Hauling (Pulp/firewood: C&C)	$8.50/ton	425	$3,613
Hauling (Pulp: PT Paper)	$19.00/ton	425	$8,075
Total Cost			$295,013
Road Betterment	$413/station	26	$11,200
AFM Commission	5.7%	$354,350	$20,198

Logs produced from trees removed during stewardship and restoration projects are either higher priced sawlogs or lower priced pulp logs. Sawlogs are logs that are large enough – typically over 5 inches in diameter at the small end – and straight enough to produce lumber. Prices for sawlogs can be highly variable because logs markets are influenced by a combination of local, regional, national, and global influences. In late 2025 sawlog prices ranged from approximately $65.00/ton to $80.00/ton. Pulp/firewood logs are logs that are too small to crooked or damaged to make lumber. These logs can be chipped and used to make paper (pulp logs) or cut and split into firewood. Based on recent projects the prices for sawlogs have been $80.00/ton and $31.00/ton for pulp/firewood logs.

Forest stewardship and restoration projects on Kitsap County parks have typically produced approximately 55 tons per acre of logs from removed trees with approximately 60% of the logs being sawlogs and 40% pulp/firewood logs. At recent log prices this would result in approximately $2,640/acre of revenue for sawlogs and approximately $682/acre of revenue for pulp/firewood logs. After logging and hauling costs ($60.50/ton for sawlogs, $$60.50 or $50.00/ton for pulp) and professional services agreement commissions ($150.00/acre for sawlogs and $39.00/acre) revenues are greatly reduced. Sawlog revenues are reduced to approximately $494/acre while pulp/firewood logs are removed at a loss of approximately $458-$688/ac depending on purchaser location. As a result of these current costs and revenues thinning projects are likely to break-even at best with potential financial results ranging from net revenue of $36/acre to a cost of $194/acre before including road maintenance costs.

Potential overall revenues or costs associated with forest stewardship and restoration thinning activities are highly dependent on log prices and the sizes of trees begin removed in restoration areas. If sawlog prices were to increase to $90/ton, which is the average price realized during the first 11 years of the Forest Stewardship and Restoration Program, the gross revenue for sawlogs would increase by $330/acre. This would bring project financial results into net positive territory. Likewise, when older forests that have ecological need receive forest stewardship and restoration treatments, removed trees may be larger with a higher percentage of sawlogs relative to pulp. In these cases, there would be more revenue generated from trees that are removed to meet restoration goals because they produce more sawlogs and fewer pulp/firewood logs likely resulting in overall higher revenues.

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Young Forest Thinning Costs

Young forest thinning activities are an investment in future healthy forests. These activities are also high-cost as they rely on human labor to fell small (less than 8 inches d.b.h.) to make room for lager trees to grow. These trees are too small to produce logs that may be sold for conversion to wood products. Preliminary estimates of young stand thinning costs in Kitsap County park forests range from approximate $350-$750/acre depending on forest conditions. Cost-share projects with the Washington Department of Natural Resources may cover approximately 50% of the cost of implementation of some of these projects. Other funding sources, such as Real Estate Excise Tax~~EET II~~, are being explored to help with the implementation of these projects to improve the forests on Kitsap County parks.

~~Financial Sustainability~~Program Funding Model

While the Forest Steward and Restoration Program was financially self-sustaining~~profitable~~ overall through the first 10 years (Figure 1), there are~~may be~~ challenges maintaining financial self-sustainability going forward. ~~(Figure 5).~~ Profitability was driven by strong logs markets during a few years when older stands, with high value large sawlogs and lesser amounts of low-value pulp logs, were thinned, combined with postponing needed pure-cost, young stand thinning and post-treatment forest inventory data collection. This provided some large revenues while reducing stewardship and restoration costs. Staffing changes to the Forest Stewardship and Restoration Program in 2023-2024, post-COVID pandemic economic changes, and the deferred restoration needs, is likely to reduce thinning revenues and increase program costs during the next 10 years. ~~. Reduced revenues and increased costs may result in net losses from stewardship and restoration program activities that would deplete account reserves over time making~~This has created an environment wherein the Forest Stewardship and Restoration Program ~~not~~is not financially viable under the current ~~business~~ funding model (See Appendix D for detailed analysis). ~~However, there~~Additionally, the Parks Advisory Board and community feedback have called for a change to the funding structure to disconnect staff salaries from the timber fund. For these reasons, the funding model for the natural resource program is changing in the following ways: ~~may be ways to restructure program costs and revenues to help ensure that the program remains financially sustainable.~~

~~Three-year Estimates~~

~~Foreseeable forest stewardship and restoration projects during 2025-2027, including thinning, forest inventory, permitting, and young stand thinning may result in net positive returns to the Parks Department prior to accounting for salaries and other costs/overhead (Table 8). Preliminary estimates of net forest product revenue[42] net of treatment, transportation, road system, and professional services agreement commission costs that are comparable to past revenues with comparable log prices – 2014-2016, 2019-20220, and 2023. During these years revenues did not meet program past costs (Figure 1), which did not include investments in forest inventory data~~

[42] ~~Preliminary revenue estimates are based on modeling results with publicly-available data. These data are generally representative of current forest conditions, but results may not accurately represent revenues.~~

collection and young stand thinning. These revenues would not cover the current 2-salary load on the budget and would result in budget reserves being depleted in 2026 or 2027, even without needed investments in forest inventory and young stand thinning. Making needed investments in forest inventory data collection and young stand thinning would produce high-quality data and healthy young forests but would deplete budget reserves even faster.

Table 8: Estimated revenues and costs for forest stewardship and restoration activities for 2025-2027 before paying salaries and other operating costs.

Revenue/cost	2025	2026	2027	Total
Thinning net	$96,000	$ 198,000	$ 170,000	$378,000
Permitting	$ (450)	$ (300)	$ (300)	$(1,050)
Inventory	$ (14,000)	$ (14,300)	$ (14,300)	$(42,600)
Young Stand Thinning[43]		$ (58,200)[44]	$ (61,300)	$ (119,500)
Remaining	$81,550	$125,200	$94,100	$300,850

Ten-year Scenario Analysis

Long-term financial sustainability of the Forest Stewardship and Restoration Program depends on the program's cost structure, which the County controls, and log prices, which are subject to local, national, and global market pressures (Figure 5). Financial sustainability was assessed using a multiple revenue and cost scenarios. Revenue scenarios vary sawlog[45] prices that cover the range of realized log prices during the past 10 years and reflect current markets – from $70/ton to $120/ton. Pulp log[46] prices were held constant at $27/ton to reflect expectations of low pulp prices going forward because western Washington has few pulp mills that are primarily fed with sawmill residuals leaving little market for pulp logs. Harvest volumes used for revenue calculation are modeled using Washington Department of Natural Resources and USDA Forest Service data "grown" with USDA Forest Service models. For full details of data and modeling seeAppendix D – Financial Scenario Assumptions. Cost scenarios assume different levels of salary support – 2, 1, and no salaries – in addition to program operating costs along with needed investments in forest inventory data collection ($15/ac), which supports assessments, planning, and treatments, and young stand thinning ($500/ac), which ensures that trees planted by prior landowners have the room needed to grow and remain healthy. Appendix E – Combined Revenues and Costs provides context for future financial scenarios relative to past performance.

Results of the scenario analysis suggest that the Forest Stewardship and Restoration would be financially sustainable, as currently funded, only under certain circumstances with a dependence on both log prices and salary support levels (Figure 5). Higher program costs, which are primarily driven by salaries, would necessitate higher revenues to support these higher costs. Revenues may be increased through higher log prices and/or increasing amount of area that is treated. Logs are a

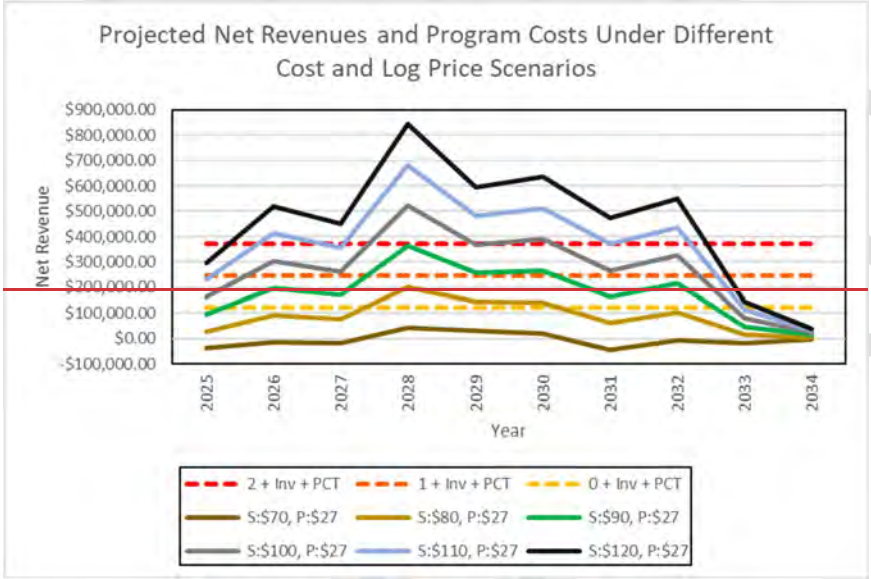
[43] Costs are the midpoint of the range in Table 7.
[44] See footnote 20
[45] Sawlogs are logs with an inside-bark small-end diameter of at least 5 inches.
[46] Pulp logs are logs with an inside-bar small-end diameter of less than 5 inches.

~~commodity and the log market is generally a buyers' market – if you want to sell logs you must accept the buyer's price. If higher prices are needed to meet costs, sellers are not able to demand these prices so they must find other ways to balance costs and revenues. Increasing the amount of area treated would incrementally increase revenues by increasing the total volume of logs sold. However, this would result in log sales volumes exceeding the 2 million board-foot harvest limit set by the Washington Department of Natural Resources for designation as a small forest landowner. Losing the small forest landowner designation would greatly increase operational costs for the Forests Stewardship and Restoration Program. Scenario analyses highlight where the balances between revenues under varying log prices and cost under different levels of salary support.~~

~~Scenarios Funding 2 Salaries~~

~~Supporting both the Stewardship Forester and Natural Resources Supervisor (Figure 5, red dashed line) would require sustained sawlog prices of at least $110/ton. This price level was seen only during 2021 and 2022, which coincided unique market conditions including lumber price spikes associated with COVID-pandemic log and lumber shortages, historically low interest rates, and high levels of housing starts. During these high revenue years, Kitsap County Parks was thinning in older stands that appear to have had a significant proportion of larger, high-value 2 Saw logs which resulted in overall higher log prices[47]. These price levels are high relative to historical prices (Figure 6) so may be unlikely moving forward. Additionally, much of the forests that will need forest stewardship and restoration treatments in the coming years have smaller diameter trees that will have lower-valued logs resulting in lower overall log prices and revenues. This scenario would not be able to sustain the Forest Stewardship and Restoration Program as currently funded. With current sawlog prices of approximately $80/ton the Forest Stewardship and Restoration Program budget would likely be depleted in 2026 after needed investments in young stand thinning and forest inventory.~~

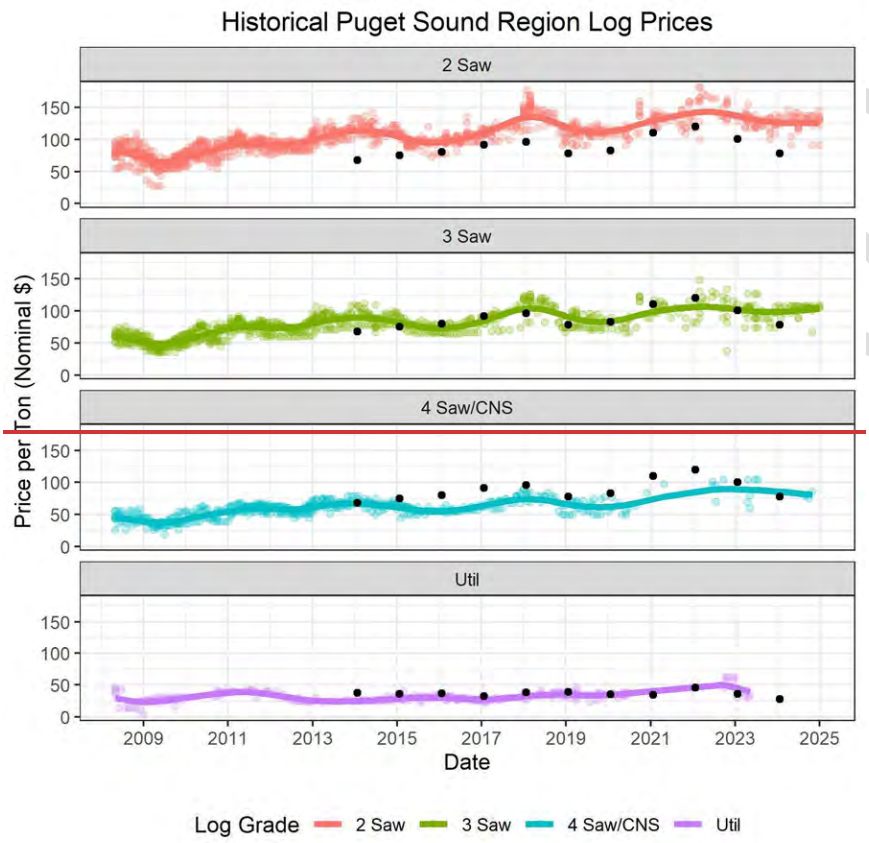
[47] ~~Sawlogs from thinning on Kitsap County parks are primarily purchased by Manke Lumber of Tacoma, WA with a "camp run" price. This price is implicitly reflective of the expected log size distributions in the stands being harvested.~~



~~Figure 5: Projected Forest Stewardship Program revenues and costs under different log price and cost scenarios. Cost scenarios include 2 salaries (Stewardship Forester and Natural Resources Supervisor) plus operating, forest inventory (Inv) and young stand thinning (PCT) costs (red dashed line), 1 salary (Stewardship Forester) plus operating, forest inventory (Inv) and young stand thinning (PCT) costs (orange dashed line), and no salaries, only operating, forest inventory (Inv) and young stand thinning (PCT) costs (yellow dashed line). Log price scenarios (solid lines) vary sawlog prices from $70/ton (S:$70) to $120/ton (S:$120) to represent a range of potential prices based on what has been realized. Pulp prices are held constant recognizing the poor pulp market conditions with few pulp mills in western Washington.~~

~~Scenarios Funding One Salary~~

~~Supporting only one salary, i.e. the Stewardship Forester, (Figure 5, orange dashed line) would require consistent sawlog prices of approximately $100/ton. This level was seen only in 2017, 2018, and 2023 when it appears that the log mix had a significant amount of 3 Saw logs from stewardship and restoration projects in stands with lager trees. These prices are also relatively high relative to historical prices so may not be likely in the future. Like the scenario above, this one is unlikely to sustain the Forest Stewardship and Restoration Program. With current sawlog prices of approximately $80/ton the Forest Stewardship and Restoration Program budget would likely be depleted in 2027 after needed investments in young stand thinning and forest inventory.~~



~~Figure 6: Historical log prices for the Puget Sound region. Points are reported prices. Lines are running average values. 2 Saw logs have a small end diameter of 12" and larger. 3 Saw logs have a small end diameter of 8 – 11 inches. 4 sa4/CNS have a small end diameter of 5-7 inches. Util are logs with a small end diameter of less than 5 inches or excessive defect to use for sawlogs. Black point are actual log prices for sawlogs (2 Saw, 3 Saw, 4 Saw/CNS) or pulp (Util). Price data provided by the Washington Department of Natural Resources.~~

~~Scenarios Funding No Salaries~~

~~Supporting no salaries, only operating costs and the costs of stewardship and restoration projects, (Figure 5, yellow dashed line) would likely be the most sustainable operating scenario for the Forest Stewardship and Restoration Program. At the current log price of approximately $80/ton thinning would likely generate sufficient revenue to cover non-salary costs along with the needed investments in young stand thinning and forest inventory. There may also be sufficient revenue to support additional restoration projects, such as invasive species removal, and seasonal staff or interns to support restoration projects.~~

~~Potential business model changes~~

~~Ensuring the long-term financial sustainability of the Forest Stewardship and Restoration Program will likely require changes to the current business model to reduce costs and/or increase revenues, which may include sources that are not tied to forest products sales. Potential opportunities include:~~

~~Cost reductions~~

~~Potential changes to reduce program costs include:~~

- **Dissolve Special Fund into General Fund~~Salary changes~~:** ~~Move the Natural Resources Supervisor and/or Stewardship Forester salaries off the Forest Stewardship and Restoration budget. Moving one salary to another source would reduce account reserve burn rates and extend the amount of time until the reserves may be depleted.~~ Moving program expenses and staff salaries int the general fund ~~both salaries to another source would likely~~will result in a long-term sustainable program cost structure. This would also bring a benefit of breaking the financial link between thinning and salaries, which may be viewed by some of the public as an incentive to prioritize revenues over restoration from forest stewardship and restoration activities. Any cost recovery revenue generated from the sale of timber product removed for ecological or restoration objectives will return to the general fund.
- **Utilize other revenue sources to cover program costs**~~**Bring professional services contract in-house: The professional services contract with American Forest Management (AFM) currently costs 5.7% of gross log sales receipts, which is expected to be approximately $100,000 over the 2 years remaining in the contract. Services provided under this contract include log marketing, load tracking, contracting loggers and other service providers, and assisting with thinning unit layout. It is unclear if these services are worth the cost. Performing these activities, which cost the equivalent of 0.5 FTE, with County staff may result in reduced costs to the Forest Stewardship Program. However, additional staffing, e.g. seasonal help and/or interns, may be needed to preform some of these tasks.:~~ REET 2 and Park Impact Fees may be utilized to fund ecological assessments, forest inventory and cover restoration project costs.
- ~~**Cost-share programs:** Explore cost-share programs to reduce the County-paid cost of pure-cost stewardship and restoration activities, such as young stand thinning, forest inventory data collection, forest stewardship and restoration plan development, and/or other activities. Participating in cost-share programs would provide reimbursement for a portion of the treatment costs thereby reducing the overall cost to the Forest Stewardship and Restoration Program. This would free up revenue to cover salaries and/or other costs. However, these cost-share programs are often funded through the state or federal government, may be subject to political whims, and should not be considered stable, consistent cost-reduction programs.~~
- ~~Other Volunteers: Explore the use of volunteers to help with stewardship and restoration activities where appropriate. Using volunteers to help perform stewardship and restoration activities may reduce the cost of investments in data collection and other activities.~~

~~However, additional staffing would be needed to recruit, train, and manage these volunteer programs. These additional staffing costs may outweigh any cost reductions from using volunteers rather than contractors for activities such as plot inventory or project implementation at the scale that is needed. Volunteer programs have many benefits beyond cost savings including fostering a sense of pride and ownership for the parks and educating the community about how natural resource management benefits ecosystems. Creating community engagement opportunities for habitat enhancement projects will be prioritized with the hopes of expanding into other opportunities if staff capacity increases.~~

~~Revenue~~Funding ~~-~~Sources

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Potential outside funding~~revenue~~ sources to support the Forest Stewardship and Restoration Program activities include:

- **Grant funding:** Explore grant opportunities to bring in monies to help fund forest stewardship and restoration program activities. There may be grants available from State agencies (Department of Natural Resources, Department of Fish and Wildlife, Department of Ecology, Recreation and Conservation Office, etc.), Federal agencies (USDA Forest Service, Environmental Protection Agency, Department of Defense, US Fish and Wildlife Service, etc.), or private funding groups.
- **Carbon projects:** Explore developing a carbon project for Kitsap County Parks forests. Carbon projects monetize the carbon that is sequestered in the trees as they grow by selling carbon credits in a carbon market. This is becoming an increasingly common way that landowners can generate non-timber income from their lands. The Nisqually Community Forest developed a carbon project for a portion of their ownership[48]. Currently this project is generating approximately $100,000 annually from approximately 1,500 acres without changing their forest stewardship and restoration activities (Justin Hall, personal communication, September 12, 2024) allowing them to thin to benefit the forest and generate additional revenues.
- **Cost-share programs:** Explore cost-share programs to reduce the County-paid cost of pure-cost stewardship and restoration activities, such as young stand thinning, forest inventory data collection, forest stewardship and restoration plan development, and/or other activities. Participating in cost-share programs would provide reimbursement for a portion of the treatment costs thereby reducing the overall cost of~~to~~ the Forest Stewardship and Restoration Program. ~~This would free up revenue to cover salaries and/or other costs.~~ However, these cost-share programs are often funded through the state or federal government, may be subject to political uncertainty ~~whims~~, and should not be considered stable, consistent cost-reduction programs.
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T~~All t~~hese potential opportunities are still in the ideation phase. Further research and exploration are needed to fully understand the impact of these opportunities on the Forest Stewardship and

[48] https://waconservationaction.org/first-forest-project-in-washington-state-to-meet-california-carbon-standards/, last accessed 1/31/20204

Restoration Program before any are pursued. This will be a focus during the next 2 years to help ensure long-term financial sustainability.

Conclusion

Ensuring the successful stewardship of and restoration of forests on Kitsap County focus parks requires a plan for expected actions and treatments to address stewardship and restoration needs. This Forest Stewardship and Restoration Strategic Plan implements the Forest Stewardship and Restoration Policy, proposing a suite of activities and actions for the coming 10 years that address treatment needs and ~~begin~~ continue to move forests in Kitsap County Parks towards desired conditions. This begins with assessments to describe and quantify current forest conditions. Over the coming 10 years, each focus park would be assessed, including forest and resource inventory data collection, to determine departures from desired conditions and support planning. Following assessments each park would have a park-specific forest stewardship and restoration plan updated or created that is tailored to the specific conditions within the park and is in alignment with the overarching policy and plan. Park forest stewardship and restoration plans would determine actions needed to address departures from desired conditions, prescribe and specify proposed treatments, and provide a treatment schedule for the 10-year lifespan of the plan. Expected effects of and outcomes from proposed treatments would be presented at three times scales – during implementation, 1-5 years post-treatment, and 6-30 years post treatment – to communicate what may be expected from the treatments and demonstrate how the treatments would move the forests in the park toward desired conditions.

Based on initial assessment using publicly available data and field observations, there are approximately 1,445 acres needing thinning treatments and approximately 655 acres in need of young stand thinning treatments over the next 10 years. These actions would address treatment needs, primarily decreasing the number of trees to provide the remaining trees adequate space to grow vigorously and increase resiliency to insects, disease, wildfire, and expected climate change. Following treatment these forests would be set up to develop toward desired conditions – the primary objective of stewardship and restoration thinning. In forests that require treatment actions with trees that would produce merchantable logs, thinning would generate revenues that would likely cover treatment costs and may produce additional revenues to fund additional restoration activities, program staff and operating costs. Necessary young stand thinning is unlikely to generate revenue, with a potential cost of $300 – 750/acre. An additional cost to the program is forest inventory data collection to support assessment and planning at approximately $30/acre.

Through the first 10 years, the Forest Steward and Restoration Program was financially sustainable overall, though there ~~may be~~are challenges through the next 10 years related to log markets and ~~FTE staff support~~program costs. Revenues during the first 10 years fluctuated greatly as log markets and the types of forests that were thinned changed. Costs were also limited because investments in young stand thinning were not made. Looking forward through the next 10 years, it's difficult to be certain where the log markets will go – they may remain at the lower end of the range seen during the first 10 years or they may move to the upper end. Scenario analyses using a range of prices and a potential treatment schedule suggest that program costs, driven by salaries, may be a limiting

factor. Moving staff over to a funding source other than recouped costs from timber product sales would help ensure the financial sustainability of the program. Additional funding sources, such as grants or carbon projects, which would pay for carbon sequestered in trees, may be explored to help fund the Forest Stewardship and Restoration Program. Together these would help meet the goals of Kitsap County Park; continued forest stewardship to improve forest health and resiliency, moving forests toward desired conditions, and creating forests that are refugia for wildlife and people in an increasingly urbanizing county.

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Appendix A – Past Stewardship and Restoration Activities

From 2014 to 2024 forest stewardship and restoration activities have thinned approximately 2,467[49] acres generating approximately $2,329,000 of revenue to the County (Table 7~~Table 9~~). These revenues, which are net of road maintenance, logging, and hauling costs, have been sufficient to support the costs of the Forestry Program, including the salary and benefits of the County Forester and seasonal help, seedlings for diversity plantings, and necessary materials and equipment. Some of these costs may have been reduced through volunteer assistance with data collection and planning to facilitate stewardship and restoration activities.

Road activities associated with stewardship and restoration activities along with one-off projects resulted in the construction, maintenance, and improvement of approximately 17.25 miles of road, abandonment of approximately 0.5 miles of road, removal or replacement/improvement of 6 water crossing structures, and the replacement or addition of 2 drainage structures (Table 8~~Table 10~~**~~Error! Reference source not found.~~**). Roads that were built, maintained, or improved for timber harvest provide opportunities for recreation, emergency services, and other access after stewardship and restoration activities are completed. Bringing roads to current standards minimizes their environmental impact. Water crossing structures on typed waters removed potential fish passage blockages thereby providing additional habitats for aquatic species. Drainage structures replaced or added help ensure that runoff from roads is directed away from streams to minimize sediment delivery to streams and aquatic species.

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Overall costs of these projects is difficult to estimate because the costs appear to have been paid through multiple sources. Road work associated with stewardship and restoration activities was paid through the profession services agreements with American Forest Management. However, projects such as a bridge replacement at Newberry Hill Heritage Park, and possibly other projects, appear to have been funded by outside sources as they have not been found in available Forest Stewardship and Restoration Program accounting information.

[49] Differences exist between acreages reported in Forest Practices Applications and acres reported here as since there is no clear linkage between permitted area and area harvested in some years in available log sales reports.

Table 79: Harvest acreage, volume (thousand board feet, MBF) by park and year with annual totals and net revenues to county

Park		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Park Total
Newberry Hill	Acres	130						163					293
	Volume	681						1,454					2,135
Newberry Hill, North Kitsap	Acres		156										156
	Volume		1,062										1,062
Newberry Hill, Port Gamble	Acres			230									230
	Volume			1,326									1,326
Port Gamble, South Kitsap, Newberry Hill	Acres				385								385
	Volume				2,197								2,197
Coulter Creek	Acres					381	332	162					875
	Volume					1,786	1,832	352					3,970
Square Lake	Acres								109	37			146
	Volume								1,961	594			2,556
Wicks Lake	Acres									69			69
	Volume									605			605
Port Gamble	Acres										246	67	313
	Volume										1,325	514	1,839
Annual Total	Acres	130	156	230	385	381	332	325	109	106	246	67	2,467
	Volume	681	1,062	1,326	2,197	1,786	1,832	1,806	1,961	1,199	1,325	514	15,690
	Net Income	$ 29K	$ 113K	$ 129K	$ 329K	$ 374K	$ 190K	$ 48K	$ 683K	$ 412K	$ 45K	$ (24K)	$ 2,329K

Table ~~8~~10: Results of road activities associated with stewardship and restoration thinning operations from 2014 - 2024

	Roads (miles)			Water Crossing & Drainage Structures (counts)		
Park	Constructed	Maintained/ Improved	Abandoned	Typed Water Removed	Typed Water Replaced/ Improved	Other Replaced/ Added
Coulter Creek	1.4	2.3	0.1	1	1	
Newberry Hill	1.9	3.6				
North Kitsap				1		
Port Gamble		6.8	0.4	1	2	1
South Kitsap	0.1	0.3				
Square Lake	0.2				1	1
Wicks Lake	0.8					
Total	4.4	12.9	0.5	3	4	2

Revenue from log sales over the first 11 years ~~have been~~were highly variable and tightly coupled with log markets, fuel costs, and the types of trees being harvested (Figure 5~~Figure 7~~). Thinning in older forests, which happened during high revenue years, produces a high proportion of higher-valued sawlogs while thinning in younger forests, which primarily happened in lower revenue years, produces a higher proportion of lower-valued pulp and firewood logs. High revenue years also coincided with high log prices, which further elevated revenues in high revenue years. Low prices for pulp and firewood logs likely reduced overall revenues - prices don't cover logging and hauling costs - but removal was necessary to meet restoration objectives.

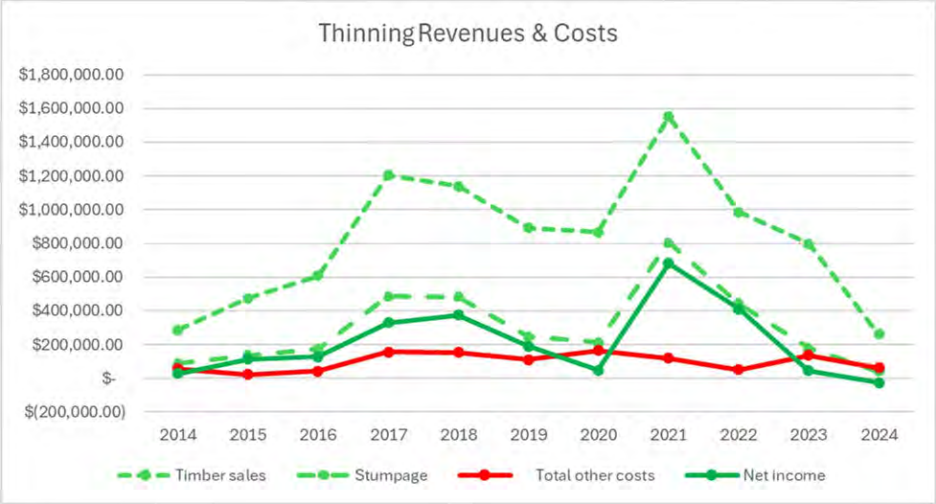

Figure ~~5~~7: Revenues and costs for thinning operations in Kitsap County Parks from 2014 – 2024. Timber sales is gross revenue from log sales to mills. Stumpage is revenue less harvesting and hauling costs. Total other costs include services contract commissions, road maintenance, and other costs related to harvesting and hauling. Net income is log sales revenue less all costs.

Revenues from stewardship and restoration activities have been sufficient to cover staffing and other County expenses since 2017 (Figure 6~~Figure 8~~). Revenues to the 1721 – KC Forest Stewardship Program budget have been highly variable, generally following net revenues from thinning activities (Figure 5~~Figure 7~~) and surpassed total expenses in half of the last 10 years. Surpluses were often very large due to high log prices and the types of logs being sold resulting in accumulated surpluses in the budget, which have been available when revenues fall short of expenses in years when log prices are low.

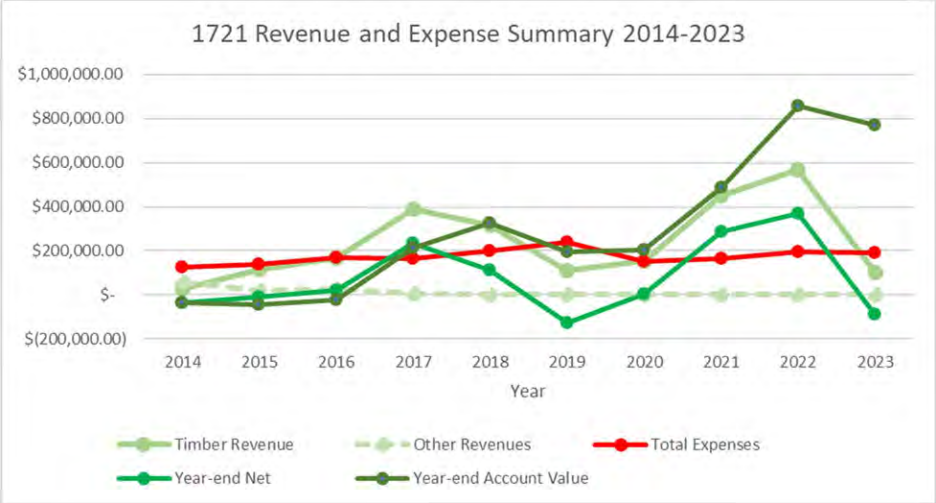

Figure ~~6~~8: Forest Stewardship and Restoration Program (1721) annual revenues and total expenses and year-end account balance, 2014 – 2023. Timber revenue is net revenue (Figure 6~~Figure 8~~) transferred to the county. Other revenues are grants and other funding. Total expenses include salaries, benefits, and other operational expenses. Year-end net is total revenues for the year less total costs. Year-end Account is the accumulated value of yearly year-end net values.

Volunteer Forest Stewards and other organizations, working in conjunction with Forest Stewardship and Restoration Program Staff, assessed forest conditions and created forest stewardship and restoration plans for 7 parks (Table 4**~~Error! Reference source not found.~~**). Assessments and planning were done to determine treatment needs in each of the parks and schedule when the treatments should be applied to meet restoration targets. These assessments and plans focused heavily on forest conditions with other resources playing smaller parts. Inventory data collected in the parks was collected prior to thinning with minimal monitoring data collection following thinning. While these plans provided general treatment prescriptions and treatment schedules, they were not always followed. For example, nearly all prescribed and scheduled treatments in North Kitsap Heritage Park have not been implemented as of 2025. Because post-treatment monitoring data was either not collected or is unavailable, it is unclear how well treatment prescriptions were followed where thinning occurred.

Appendix B - Focus Park Descriptions

Bandix Dog Park

Bandix Dog Park is a 30-acre park in southern Kitsap County with approximately 24 acres of forest ringing a central opening. This forest was regenerated following harvesting in the early 1900s followed by additional thinning along with other harvesting and clearing in the mid- to late-1900s. The forest ranges from moderately to densely stocked where trees are becoming stressed. This park sees much recreation in the off-leash dog park.

Banner Forest Heritage Park

Banner Forest Heritage Park is a densely forested 636-acre park located in southern Kitsap County that was acquired from the Washington Department of Natural Resources (WADNR) in 2000. Much of the forest on the park regenerated in the late 1800s and/or early 1900s following harvesting and/or fire. The WADNR managed this area to generate revenue for trust beneficiaries by harvesting and regenerating areas in the 1960s, 1970s, and 1980s. This disturbance and regeneration history has created a mix of forest conditions. Some areas were naturally regenerated (i.e., not planted) and now have large trees and multiple canopy layers that may not need restoration treatments. Other natural regenerated areas have uniform tree sizes and spacing and single canopy layer that would benefit from restoration treatments to open the canopy and allow the establishment of additional canopy layers. Areas harvested and regenerated (i.e., planted) prior to County acquisition are highly stocked with elevated competition between trees, slow growth rates, and low vigor. Douglas-fir beetle and western pine beetle are currently active in dense areas of Banner Forest causing Douglas-fir and western white pine mortality. The Great Peninsula Conservancy holds a conservation easement that covers approximately 139 acres in the center of the park. This park is heavily used for recreation with approximately 26 miles of trails.

Coulter Creek Heritage Park

Coulter Creek is a 1,549 acre park located in southern Kitsap County that was assembled through a series of acquisitions from various landowners including the Presbytery of Olympia in 1991 (formerly Camp Calvinwood), McCormick Land Company in 2000s, and the WADNR (formerly Square Lake State Park) in 1990s. Forests in much of Coulter Creek Park were regenerated following harvest and/or fire in the early- to mid-1900s. Much of Coulter Creek Park was then managed for Christmas tree and timber production prior to being acquired by the County. The park received forest stewardship and restoration treatments in 2017, 2019, 2021 and 2022 to address reduce stocking that was a legacy of past management. Much of the remaining untreated areas are reserve areas including wetland buffers, stream buffers, and inaccessible areas. Some additional highly stocked areas remain where treatments may be needed. ~~Follow up~~Follow-up treatments may be needed in 15-25 years or as indicated by future monitoring data and assessments.

Eglon Forest

Eglon Forest is 707-acres park located in northern Kitsap County that was acquired from the WADNR in 2025. Much of this park was regenerated through planting following regeneration harvesting in 1970s, 1980s, 1990s with some follow-up thinning around 2010. The resulting forest is a mix of conditions ranging from pure conifer forests (primarily Douglas-fir) to pure hardwood forests (primarily red alder and bigleaf maple) with areas where both types are mixed. Forest in conifer-dominated areas are becoming dense with competition causing decreases in tree growth in vigor. This park sees some recreation use on approximately 6 miles of trail, primarily on old roadbeds used for past timber harvesting.

Gordon Park

Gordon Park is an approximately 54-acre park located in central Kitsap County with approximately 46 acres of forests. These forests were regenerated following logging and/or fire in the early- to mid-1900s and are currently well stocked. However, the dominant trees are becoming large resulting in small trees having heavy competition that has slowed growth and pushed these trees toward mortality. There are also areas of disease mortality that are creating open areas and large snags. This park sees extensive recreation on trails, disc golf course and developed campgrounds.

Hansville Greenway

Hansville Greenway is a 283-acre park located near Hansville in northern Kitsap County. Approximately 140 acres of the park were originally acquired in 1995 with the remaining area acquired at various times since then. Forests in this park regenerated following harvesting in the early 1900s resulting conditions that are densely stocked with compositions ranging from pure conifer to mixes of conifer and hardwood to pure hardwood. Currently the park is managed in conjunction with the Hansville Greenway Association under a management plan approved in 2013, which precludes forest management. Nearly 30 years have passed since the last comprehensive assessment of this park. This park sees extensive recreation on 7 miles of trails within the park and an additional 2.5 miles of trail on surrounding easements.

Illahee Preserve Heritage Park

The Illahee Preserve Heritage Park is a 468-acre park located in the East Bremerton area of central Kitsap County. Most of this park was transferred from the WADNR in 2001 with additional areas purchased from private individuals ~~in following that date~~ in subsequent years. Much of this park was harvested in the early 1900s. The current forests are a mix of pre-harvesting remnants and areas that regenerated following the harvesting. A management plan was created by Illahee Forest Stewardship Committee in 2003. Currently there is an extensive mountain pine beetle outbreak that is impacting many of the western white pine in the park, which have been weakened by competition with other trees. While this is producing standing dead trees (snags), which are important habitat elements, the white pine may be lost from the park in the coming years due to the outbreak. Illahee Creek bisects the park and provides spawning habitat for salmon. This park sees extensive recreation on approximately 5 miles of trails.

Newberry Hill Heritage Park

Newberry Hill Heritage Park is a 1,083-acre park located in central Kitsap County that was acquired from Port Blakely Tree Farms and the WADNR in 2004 and 2009-10, respectively. Forests in this park were generally planted following harvesting in 1980s and1990s. This park received extensive forest stewardship and restoration treatments in 2014, 2016, 2017, and 2020. Remaining untreated areas are a mix of dense upland areas along with wetland and stream buffer reserves. Untreated upland areas are highly stocked with elevated competition between trees, slow growth rates, and decreased vigor. This park has extensive recreation on approximately 17 miles of trails and access roads.

North Kitsap Heritage Park

North Kitsap Heritage Park is a densely forested 818-acre park located in northeast Kitsap County that was acquired from Pope Resources (now Rayonier) in 2005 and 2014. Forests in the park regenerated through planting following clearcutting in the 1980s and 1990s. Planted forests were intended for future timber production and are now very dense with high levels of competition, slow growth rates, lack species diversity, and sparse to non-existent understory vegetation. Forest stewardship and restoration activities have occurred in small areas within the park leaving much of the park highly stocked with elevated competition between trees, slow growth rates, and low vigor. This park sees extensive recreation use on approximately 13 miles of trails, primarily on roadbeds previously used for timber harvesting.

Port Gamble Forest Heritage Park

Port Gamble Forest Heritage Park, located in northern Kitsap County, was acquired from Pope Resources (now Rayonier) as three separate blocks – Shoreline, Gamble Forest, and Gamble Forest West – in 2014, 2016 and 2017, respectively, covering approximately 3,774 acres. Forests within the park are densely stocked resulting from clearcutting and planting from 1980s-2000s. These forests were intended for future timber management. Rayonier currently holds timber deeds on approximately 1,270 acres of the Gamble Forest and Gamble Forest West blocks allowing harvesting these areas until 2042. These areas will be released to the County as recently planed open forests soon after harvesting. The remaining areas are wholly owned by Kitsap County, including approximately 750 acres where timber rights were purchased in 2022 with the assistance of Our Forest Fund and Forterra. Much of the County-owned areas received forest stewardship and restoration treatments in 2016, 2023 and 2024. Remaining untreated areas are a mix of 15–40-year-old forests that are highly stocked that have, or will soon have, high levels of competition, reduced growth, and decreased vigor. A portion of this untreated area will be treated in 2025. Additional areas may be treated in the future following assessments and planning. This park has extensive recreation on 70 miles of trails, access roads, and ~~in~~ a developed mountain bike park.

Rude Road Site

The Rude Road site is a 203-acre park located in central Kitsap County. Much of the park was acquired from the WADNR in 2017 with additional area acquired as a tax title purchase. Much of the area acquired from the WADNR were regenerated following harvesting between 2000 and 2010. The

remaining areas were regenerated in the early 1900s following harvesting, part of this area is currently inaccessible. Forest stewardship and restoration treatments will be needed in the in areas that were harvested since 2000 to ensure the development of healthy forests on this site. There is no developed recreation ~~in~~ at this site.

South Kitsap Regional Park

South Kitsap Regional Park is a 200-acre park located in south Kitsap County near Port Orchard. Approximately 175 acres of this park is forested with the remaining area developed for recreation. Forests in this park regenerated following harvesting in the late 1800s – early 1900s. Currently the forests are dominated by large Douglas-fir trees with areas of hardwoods in lower-lying, wetter areas. Much of the forest received forest stewardship and restoration treatments in 2017 to address competition and root-rot issues. This park sees extensive recreational use on baseball diamonds and other sports fields, developed recreation areas, approximately 7 miles of trails, and a miniature steam railroad.

Wicks Lake Park

Wicks Lake Park is a 156-acre park in southern Kitsap County that was acquired from McCormick Land Company and Alpine Evergreen in 2001, 2005 and 2007. These forests regenerated following fire and/or harvesting in the early 1900s and were managed as commercial timberland prior to becoming a County park. In some areas, regeneration harvesting and planting occurred in the late 1900s and commercial thinning in the 1990s. Sixty-nine acres of forest stewardship and restoration treatments occurred in 2022. Remaining untreated areas have not needed treatment, are in buffers along riparian areas, including Wicks Lake, and wetlands, or have limited accessibility. This park is relatively remote and sees light recreation use on trails and in Wicks Lake, which is one of the last undeveloped lakes in Kitsap County.

Appendix C – Preliminary Park Treatment Needs

Figure ~~7~~9: Preliminary stewardship and restoration treatment needs by treatment type for Bandix Dog Park

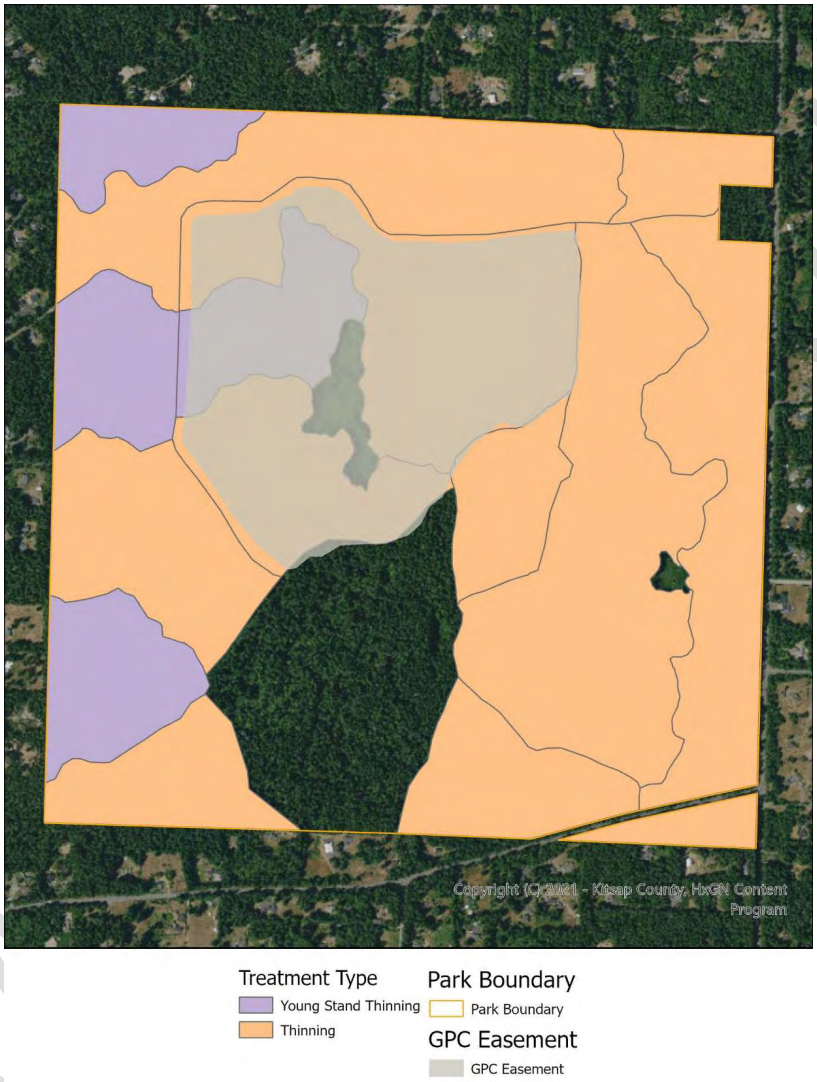

Figure ~~8~~10: Preliminary stewardship and restoration treatment needs by treatment type for Banner Forest Heritage Park. Treatments in the GPC conservation easement would require easement modifications and updates.

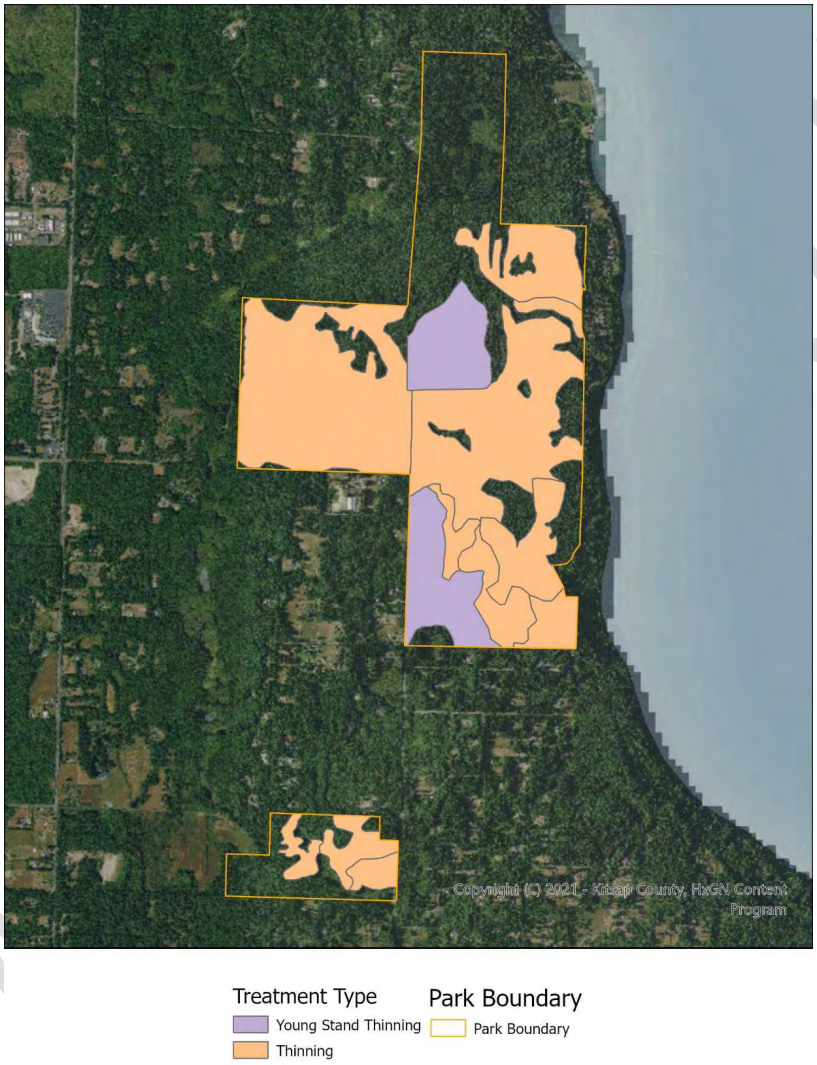

Figure ~~9~~11: Preliminary stewardship and restoration treatment needs by treatment type for Eglon Forest

Figure ~~10~~12: Preliminary stewardship and restoration treatment needs by treatment type for Gordon Heritage Park

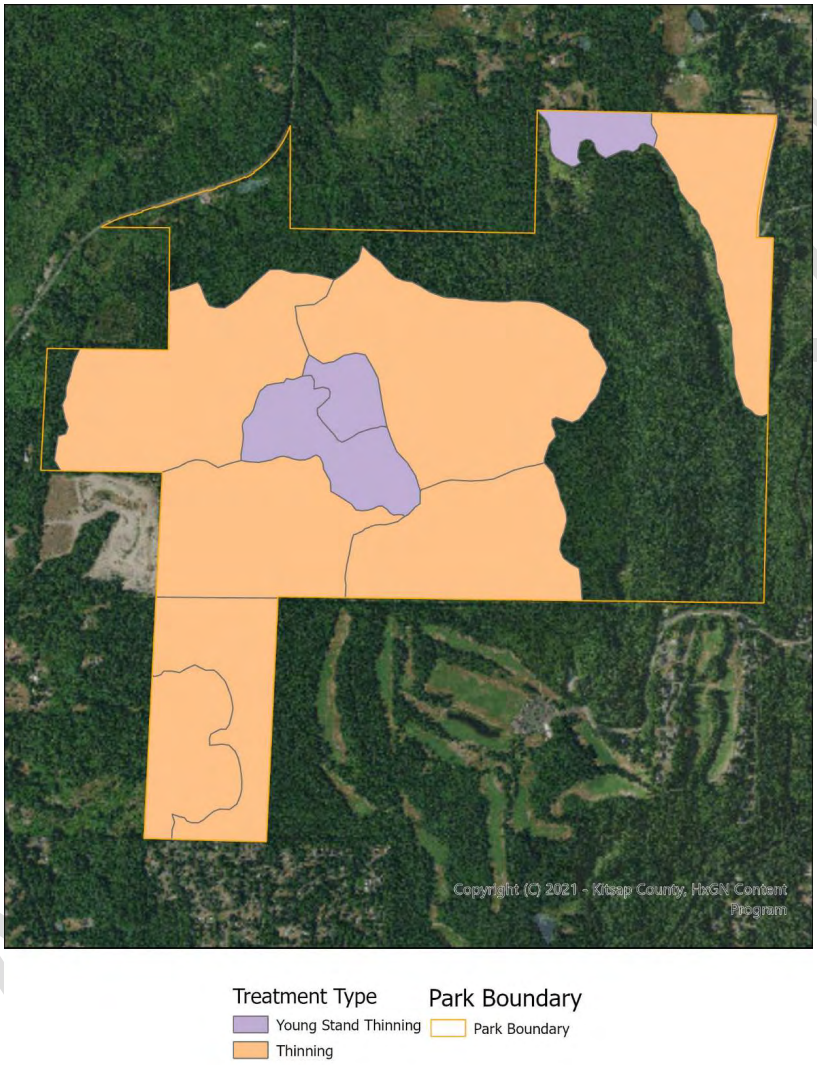

Figure ~~11~~13: Preliminary stewardship and restoration treatment needs by treatment type for North Kitsap Heritage Park

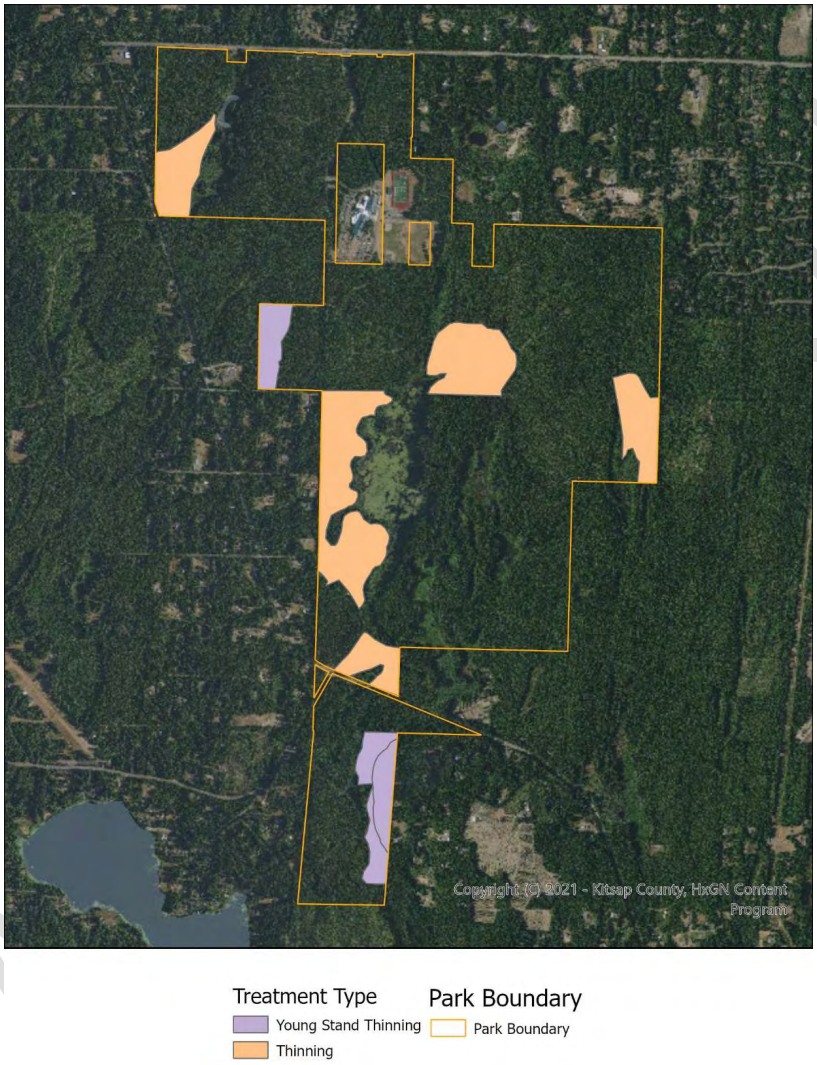

Figure ~~12~~14: Preliminary stewardship and restoration treatment needs by treatment type for Newberry Hill Heritage Park

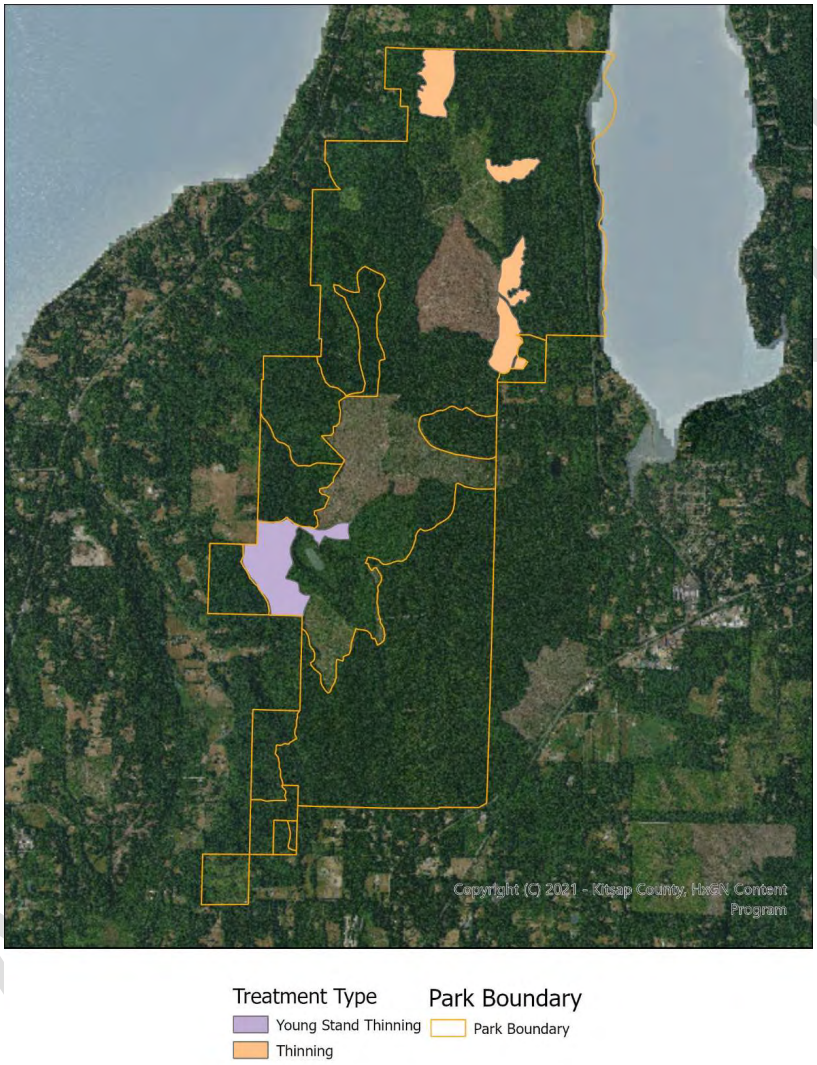

Figure ~~13~~15: Preliminary stewardship and restoration treatment needs by treatment type for Port Gamble Forest Heritage Park

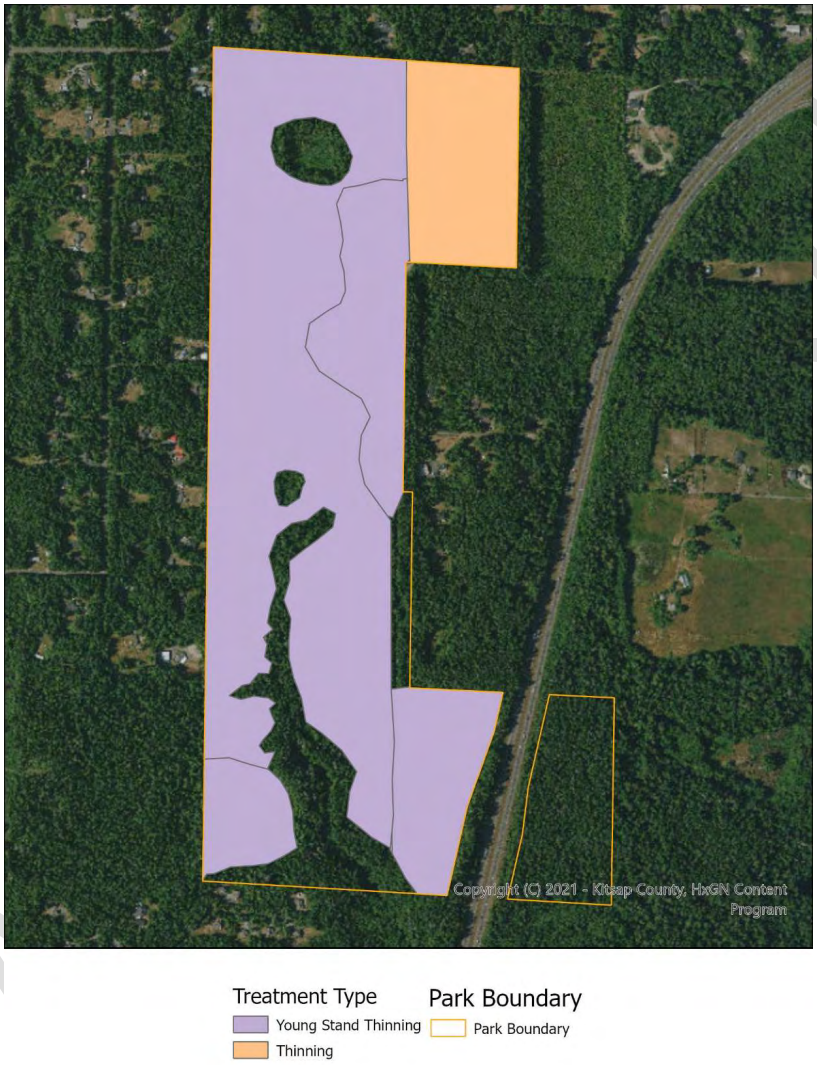

Figure ~~14~~16: Preliminary stewardship and restoration treatment needs by treatment type for the Rude Road Site

Appendix D – Financial Sustainability Analysis

In earlier iterations of this document, it was assumed that this program would continue to be self-funding. Below is the analysis that helped guide the decision to dissolve the special forest fund and bring this program into the general fund.

Introduction

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While the Forest Steward and Restoration Program was profitable overall through the first 10 years (Figure 1), there may be challenges maintaining financial sustainability going forward. Profitability was driven by strong logs markets during a few years when older stands, with high value large sawlogs and lesser amounts of low-value pulp logs, were thinned combined with postponing needed pure-cost, young stand thinning and post-treatment forest inventory data collection. This provided some large revenues while reducing stewardship and restoration costs. Staffing changes to the Forest Stewardship and Restoration Program in 2023-2024, post-COVID pandemic economic changes, and the deferred restoration needs is likely to reduce thinning revenues and increase program costs during the next 10 years. Reduced revenues and increased costs may result in net losses from stewardship and restoration program activities that would deplete account reserves over time making the Forest Stewardship and Restoration Program not financially viable under the current business model. However, there may be ways to restructure program costs and revenues to help ensure that the program remains financially sustainable.

Three-year Estimates

Foreseeable forest stewardship and restoration projects during 2025-2027, including thinning, forest inventory, permitting, and young stand thinning may result in net positive returns to the Parks Department prior to accounting for salaries and other costs/overhead (). Preliminary estimates of net forest product revenue[50] net of treatment, transportation, road system, and professional services agreement commission costs that are comparable to past revenues with comparable log prices – 2014-2016, 2019-20220, and 2023. During these years revenues did not meet program past costs (Figure 1), which did not include investments in forest inventory data collection and young stand thinning. These revenues would not cover the current 2-salary load on the budget and would result in budget reserves being depleted in 2026 or 2027, even without needed investments in forest inventory and young stand thinning. Making needed investments in forest inventory data collection and young stand thinning would produce high-quality data and healthy young forests but would deplete budget reserves even faster.

Table 9: Estimated revenues and costs for forest stewardship and restoration activities for 2025-2027 before paying salaries and other operating costs.

Revenue/cost	2025	2026	2027	Total
Thinning net	$96,000	$ 198,000	$ 170,000	$378,000

[50] Preliminary revenue estimates are based on modeling results with publicly-available data. These data are generally representative of current forest conditions, but results may not accurately represent revenues.

Permitting	$ (450)	$ (300)	$ (300)	$(1,050)
Inventory	$ (14,000)	$ (14,300)	$ (14,300)	$(42,600)
Young Stand Thinning[51]		$ (58,200)[52]	$ (61,300)	$ (119,500)
Remaining	$81,550	$125,200	$94,100	$300,850

Ten-year Scenario Analysis

Long-term financial sustainability of the Forest Stewardship and Restoration Program depends on the program's cost structure, which the County controls, and log prices, which are subject to local, national, and global market pressures (). Financial sustainability was assessed using a multiple revenue and cost scenarios. Revenue scenarios vary sawlog[53] prices that cover the range of realized log prices during the past 10 years and reflect current markets – from $70/ton to $120/ton. Pulp log[54] prices were held constant at $27/ton to reflect expectations of low pulp prices going forward because western Washington has few pulp mills that are primarily fed with sawmill residuals leaving little market for pulp logs. Harvest volumes used for revenue calculation are modeled using Washington Department of Natural Resources and USDA Forest Service data "grown" with USDA Forest Service models. Cost scenarios assume different levels of salary support – 2, 1, and no salaries – in addition to program operating costs along with needed investments in forest inventory data collection ($15/ac), which supports assessments, planning, and treatments, and young stand thinning ($500/ac), which ensures that trees planted by prior landowners have the room needed to grow and remain healthy.

Results of the scenario analysis suggest that the Forest Stewardship and Restoration would be financially sustainable, as currently funded, only under certain circumstances with a dependence on both log prices and salary support levels. Higher program costs, which are primarily driven by salaries, would necessitate higher revenues to support these higher costs. Revenues may be increased through higher log prices and/or increasing amount of area that is treated. Logs are a commodity and the log market is generally a buyers' market – if you want to sell logs you must accept the buyer's price. If higher prices are needed to meet costs, sellers are not able to demand these prices so they must find other ways to balance costs and revenues. Increasing the amount of area treated would incrementally increase revenues by increasing the total volume of logs sold. However, this would result in log sales volumes exceeding the 2 million board-foot harvest limit set by the Washington Department of Natural Resources for designation as a small forest landowner. Losing the small forest landowner designation would greatly increase operational costs for the Forests Stewardship and Restoration Program. Scenario analyses highlight where the balances between revenues under varying log prices and cost under different levels of salary support.

[51] Costs are the midpoint of the range in .
[52] See footnote 20
[53] Sawlogs are logs with an inside-bark small-end diameter of at least 5 inches.
[54] Pulp logs are logs with an inside-bar small-end diameter of less than 5 inches.

Scenarios Funding 2 Salaries

Supporting both the Stewardship Forester and Natural Resources Supervisor (, red dashed line) would require sustained sawlog prices of at least $110/ton. This price level was seen only during 2021 and 2022, which coincided with unique market conditions including lumber price spikes associated with COVID-pandemic log and lumber shortages, historically low interest rates, and high levels of housing starts. During these high revenue years, Kitsap County Parks was thinning in older stands that appear to have had a significant proportion of larger, high-value 2 Saw logs which resulted in overall higher log prices[55]. These price levels are high relative to historical prices so may be unlikely moving forward. Additionally, much of the forests that will need forest stewardship and restoration treatments in the coming years have smaller diameter trees that will have lower-valued logs resulting in lower overall log prices and revenues. This scenario would not be able to sustain the Forest Stewardship and Restoration Program as currently funded. With current sawlog prices of approximately $80/ton the Forest Stewardship and Restoration Program budget would likely be depleted in 2026 after needed investments in young stand thinning and forest inventory.

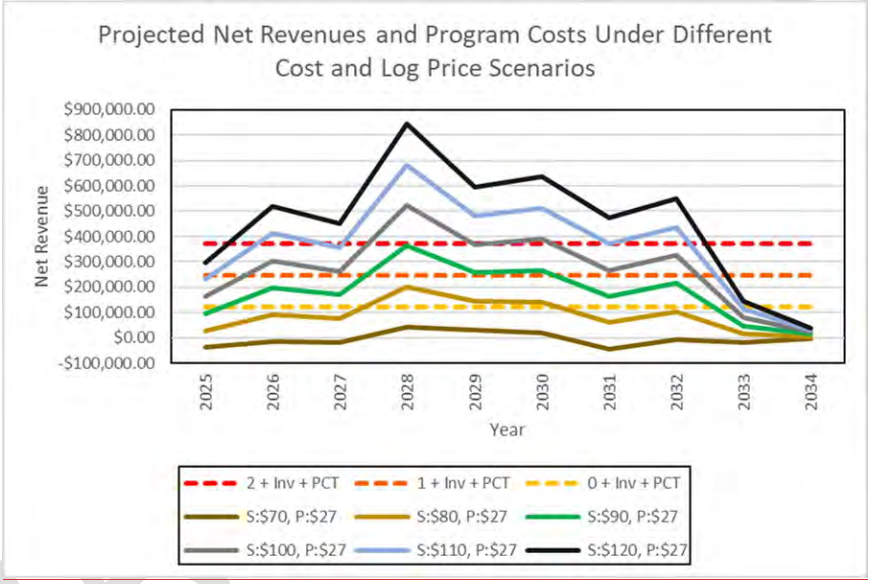

Figure 15: Projected Forest Stewardship Program revenues and costs under different log price and cost scenarios. Cost scenarios include 2 salaries (Stewardship Forester and Natural Resources Supervisor) plus operating, forest inventory (Inv) and young stand thinning (PCT) costs (red dashed line), 1 salary (Stewardship Forester) plus operating, forest inventory (Inv) and young stand thinning (PCT) costs (orange dashed line), and no salaries, only operating, forest inventory (Inv) and young stand thinning (PCT) costs (yellow dashed line). Log price scenarios (solid lines) vary sawlog prices from

[55] Sawlogs from thinning on Kitsap County parks are primarily purchased by Manke Lumber of Tacoma, WA with a "camp run" price. This price is implicitly reflective of the expected log size distributions in the stands being harvested.

$70/ton (S:$70) to $120/ton (S:$120) to represent a range of potential prices based on what has been realized. Pulp prices are held constant recognizing the poor pulp market conditions with few pulp mills in western Washington.

Scenarios Funding One Salary

Supporting only one salary, i.e. the Stewardship Forester, (Figure 15, orange dashed line) would require consistent sawlog prices of approximately $100/ton. This level was seen only in 2017, 2018, and 2023 when it appears that the log mix had a significant amount of 3 Saw logs from stewardship and restoration projects in stands with lager trees. These prices are also relatively high relative to historical prices so may not be likely in the future. Like the scenario above, this one is unlikely to sustain the Forest Stewardship and Restoration Program. With current sawlog prices of approximately $80/ton the Forest Stewardship and Restoration Program budget would likely be depleted in 2027 after needed investments in young stand thinning and forest inventory.

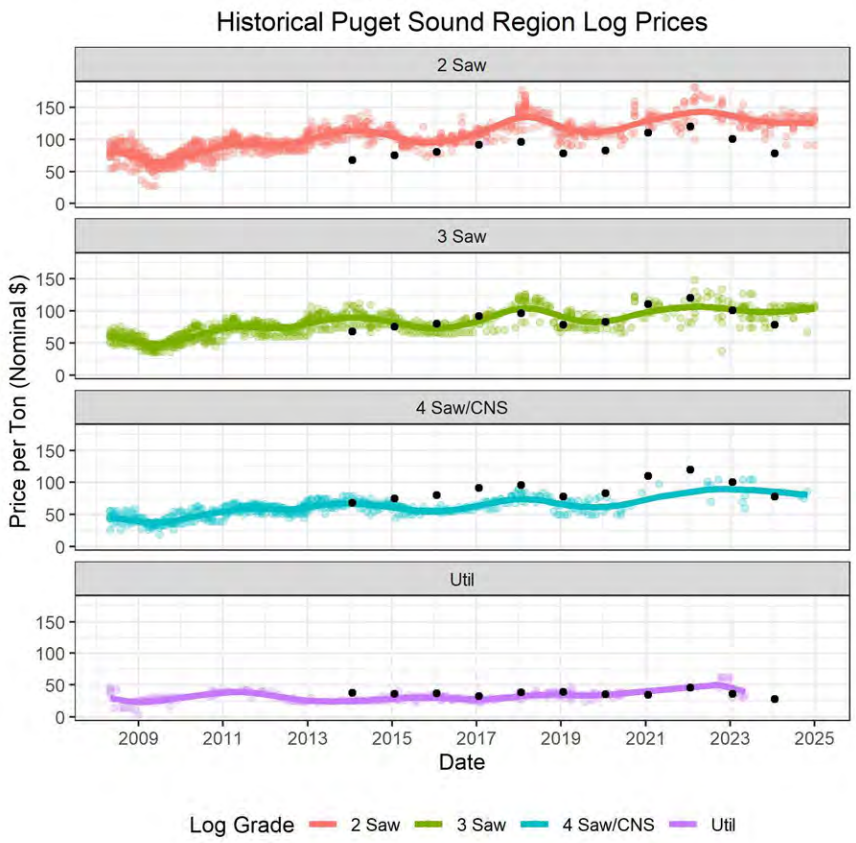

Figure 16: Historical log prices for the Puget Sound region. Points are reported prices. Lines are running average values. 2 Saw logs have a small end diameter of 12" and larger. 3 Saw logs have a small end diameter of 8 – 11 inches. 4 sa4/CNS have a small end diameter of 5-7 inches. Util are logs with a small end diameter of less than 5 inches or excessive defect to use for sawlogs. Black point are actual log prices for sawlogs (2 Saw, 3 Saw, 4 Saw/CNS) or pulp (Util). Price data provided by the Washington Department of Natural Resources.

Scenarios Funding No Salaries

Supporting no salaries, only operating costs and the costs of stewardship and restoration projects, (Figure 15, yellow dashed line) would likely be the most sustainable operating scenario for the Forest Stewardship and Restoration Program. At the current log price of approximately $80/ton thinning would likely generate sufficient revenue to cover non-salary costs along with the needed investments in young stand thinning and forest inventory. There may also be sufficient revenue to support additional restoration projects, such as invasive species removal, and seasonal staff or interns to support restoration projects.

Potential business model changes

Ensuring the long-term financial sustainability of the Forest Stewardship and Restoration Program will likely require changes to the current business model to reduce costs and/or increase revenues, which may include sources that are not tied to forest products sales. Potential opportunities include:

Cost reductions

Potential changes to reduce program costs include:

- **Salary changes:** Move the Natural Resources Supervisor and/or Stewardship Forester salaries off the Forest Stewardship and Restoration budget. Moving one salary to another source would reduce account reserve burn rates and extend the amount of time until the reserves may be depleted. Moving both salaries to another source would likely result in a long-term sustainable program cost structure. This would also bring a benefit of breaking the financial link between thinning and salaries, which may be viewed by some of the public as an incentive to prioritize revenues over restoration from forest stewardship and restoration activities.
- **Bring professional services contract in-house:** The professional services contract with American Forest Management (AFM) currently costs 5.7% of gross log sales receipts, which is expected to be approximately $100,000 over the 2 years remaining in the contract. Services provided under this contract include log marketing, load tracking, contracting loggers and other service providers, and assisting with thinning unit layout. It is unclear if these services are worth the cost. Performing these activities, which cost the equivalent of 0.5 FTE, with County staff may result in reduced costs to the Forest Stewardship Program. However, additional staffing, e.g. seasonal help and/or interns, may be needed to preform some of these tasks.
- **Cost-share programs:** Explore cost-share programs to reduce the County-paid cost of pure-cost stewardship and restoration activities, such as young stand thinning, forest inventory data collection, forest stewardship and restoration plan development, and/or other activities. Participating in cost-share programs would provide reimbursement for a portion of the treatment costs thereby reducing the overall cost to the Forest Stewardship and Restoration Program. This would free up revenue to cover salaries and/or other costs. However, these cost-share programs are often funded through the state or federal government, may be subject to political whims, and should not be considered stable, consistent cost-reduction programs.
- **Volunteers:** Explore the use of volunteers to help with stewardship and restoration activities where appropriate. Using volunteers to help perform stewardship and restoration activities may reduce the cost of investments in data collection and other activities. However, additional staffing would be needed to recruit, train, and manage these volunteer programs. These additional staffing costs may outweigh any cost reductions from using volunteers rather than contractors for activities such as plot inventory or project implementation at the scale that is needed. Volunteer programs have many benefits beyond cost savings including fostering a sense of pride and ownership for the parks and educating

the community about how natural resource management benefits ecosystems. Creating community engagement opportunities for habitat enhancement projects will be prioritized with the hopes of expanding into other opportunities if staff capacity increases.

Revenue Sources

Potential outside revenue sources to support the Forest Stewardship and Restoration Program activities include:

- **Grant funding:** Explore grant opportunities to bring in monies to help fund forest stewardship and restoration program activities. There may be grants available from State agencies (Department of Natural Resources, Department of Fish and Wildlife, Department of Ecology, Recreation and Conservation Office, etc.), Federal agencies (USDA Forest Service, Environmental Protection Agency, Department of Defense, US Fish and Wildlife Service, etc.), or private funding groups.
- **Carbon projects:** Explore developing a carbon project for Kitsap County Parks forests. Carbon projects monetize the carbon that is sequestered in the trees as they grow by selling carbon credits in a carbon market. This is becoming an increasingly common way that landowners can generate non-timber income from their lands. The Nisqually Community Forest developed a carbon project for a portion of their ownership[56]. Currently this project is generating approximately $100,000 annually from approximately 1,500 acres without changing their forest stewardship and restoration activities (Justin Hall, personal communication, September 12, 2024) allowing them to thin to benefit the forest and generate additional revenues.

All these potential opportunities are still in the ideation phase. Further research and exploration are needed to fully understand the impact of these opportunities on the Forest Stewardship and Restoration Program before any are pursued. This will be a focus during the next 2 years to help ensure long-term financial sustainability.

[56] https://waconservationaction.org/first-forest-project-in-washington-state-to-meet-california-carbon-standards/, last accessed 1/31/20204

~~Appendix D –~~ Financial Scenario Assumptions

Financial scenario analyses are based on a combination of publicly available forest inventory data and actual past log prices, harvest costs, and Forest Stewardship Program expenses. The results of these analyses show a range of what may be expected expenses and incomes to the County from forest stewardship and restoration treatments over the coming decade.

Analysis areas

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Areas selected for the financial scenario analysis are parks with areas that have not received restoration thinning in the past but where treatment appears to be needed to address departures from desired conditions, climate resiliency, and forest health concerns. These parks include the Banner Forest Heritage Park, Bandix Dog Park, Eglon Forest, North Kitsap Heritage Park, Port Gamble Forest Heritage Park, Gordon Park, and Newberry Hill Heritage Park. Illahee Preserve and Hansville Greenway were excluded from this analysis because of their de facto "preserve" status even though there may be stewardship and restoration treatment needs.

Forest inventory data sources

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Forest inventory for the analysis areas are a combination of the Washington Department of Natural Resources RS FRIS (remotely sensed forest resource inventory system) and the USDA Forest Service FIA (forest inventory and analysis) data. RS FRIS data provide inventory summary data including numbers of trees per acre, basal area per acre, mean heights, competition metrics, tree volumes, etc., for all forested areas of Washington State, including Kitsap County. These data layers were summarized within each potential treatment unit in each analysis area to give typical conditions across the unit that are representative 2019 and 2020.

A modeling database was created using data from the USDA Forest Service Forest Inventory and Analysis (FIA) database to support forecasting future forest conditions using USDA Forest Service Forest Vegetation Simulator (FVS) forest growth model. FIA plot data from lower elevation (<1,500') areas in Kitsap, Thurston, eastern Mason, and eastern Jefferson counties were selected to represent analysis unit conditions data as closely as possible. These data were "grown" using FVS to provide representative forest conditions in each year from 2025 – 2034 to provide potential stewardship and restoration treatment harvest volumes and tree sizes for the scenario analysis.

Operable areas

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Operable areas within analysis unit were determined by removing areas that may be in regulatory riparian management zones (RMZs) or wetland management zones (WMZs), are excessively steep (>35% slope), or are inaccessible. Stewardship and restoration and would likely happen only within operable areas within a unit, rather than the entire unit. Estimating these areas using the best available data gives a more accurate view of what potential harvest volumes for each scenario.

Treatment removals

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Past restoration treatments removed approximately 40% of the pre-harvest conifer volume within treatment areas. This percentage is used in financial scenario analyses.

Log size class percentages

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Sawlog and pulp log percentages in past restoration treatments were related average tree diameters, specifically quadratic mean diameter (QMD), of the unit before harvesting (Figure 17). Generally, the smaller the average diameter of a unit is, the higher the percentage of pulp logs in the overall harvest volume. Likewise, when the unit contains larger trees, on average, the lower the percentage of pulp logs in the overall harvest volume. This function is used to predict the expected percentages of sawlog and pulp volumes when calculating potential thinning revenues.

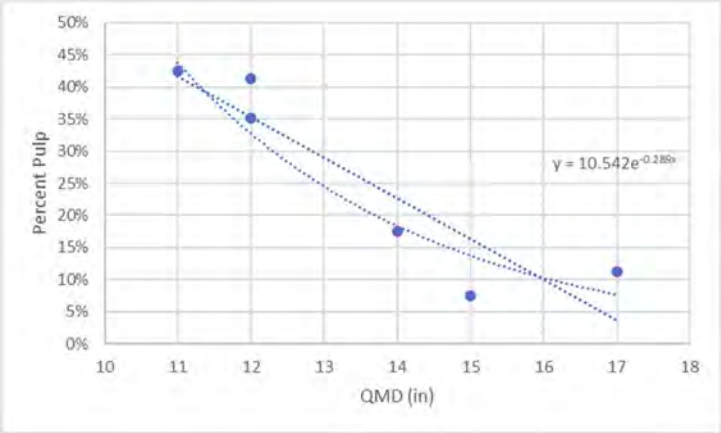

Figure 17: The relationship between percentage of volume in pulp logs relative to pre-harvest quadrative mean diameter (QMD)

Treatment year

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Treatment years are assigned based on expected treatment need, as determined by previous planning document treatment need calls, competition metrics, and preliminary field review with harvest limited to an average maximum harvest of approximately 2 million board feet (MMBF) per year. Additionally, treatments are assigned one park at a time to focus impacts during a shorter time and provide long periods with treatment impacts. Treatments were manually assigned and iteratively adjusted to attempt to maximize restoration area and revenue to the County until all thinning needs have been addressed.

Log prices and harvest costs

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Log prices and harvest costs used in the scenario analysis are based on past actual prices, average past costs, and expected future costs (Table 10~~Table 11~~). Log price scenarios cover the range of prices that the County received from 2014-2024 and cover the range of reported prices in 2025. This range is used for scenario forecasts because log prices are very volatile (~~Figure 6~~) and difficult to predict but provides a representation of what may be possible from 2025-2034. Stump to truck cost, the costs associated with felling and bucking trees, moving the logs to the landing, and loading logs onto trucks were relatively consistent from 2014-2024 so a single average used for all

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scenarios. Hauling costs, the cost for moving logs from the landing to the mill, were also relatively consistent so an average is used for all scenarios. Harvesting would be contracted through a professional services agreement with American Forest Management (AFM) at a cost of 5.7% of log sales from 2024-2027 with an expectation that that would continue through 2034. Road maintenance and improvement costs have been highly variable but averaged approximately 4% of gross log sales from 2014-2024, which is used for all scenarios.

Table ~~10~~11: Log prices and harvesting costs for each financial analysis scenario.

	$70	$80	$90	$100	$110	$120
Sawlog price $/ton	$ 70	$ 80	$ 90	$ 100	$ 110	$ 120
Stump-truck cost $/ton	$ 38	$ 38	$ 38	$ 38	$ 38	$ 38
Haul cost $/ton	$ 15	$ 15	$ 15	$ 15	$ 15	$ 15
AFM cost $/ton[57]	$ 6	$ 6	$ 7	$8	$9	$ 10
Road cost $/ton[58]	$ 4	$ 4	$ 5	$6	$6	$7

Forest Stewardship Program costs

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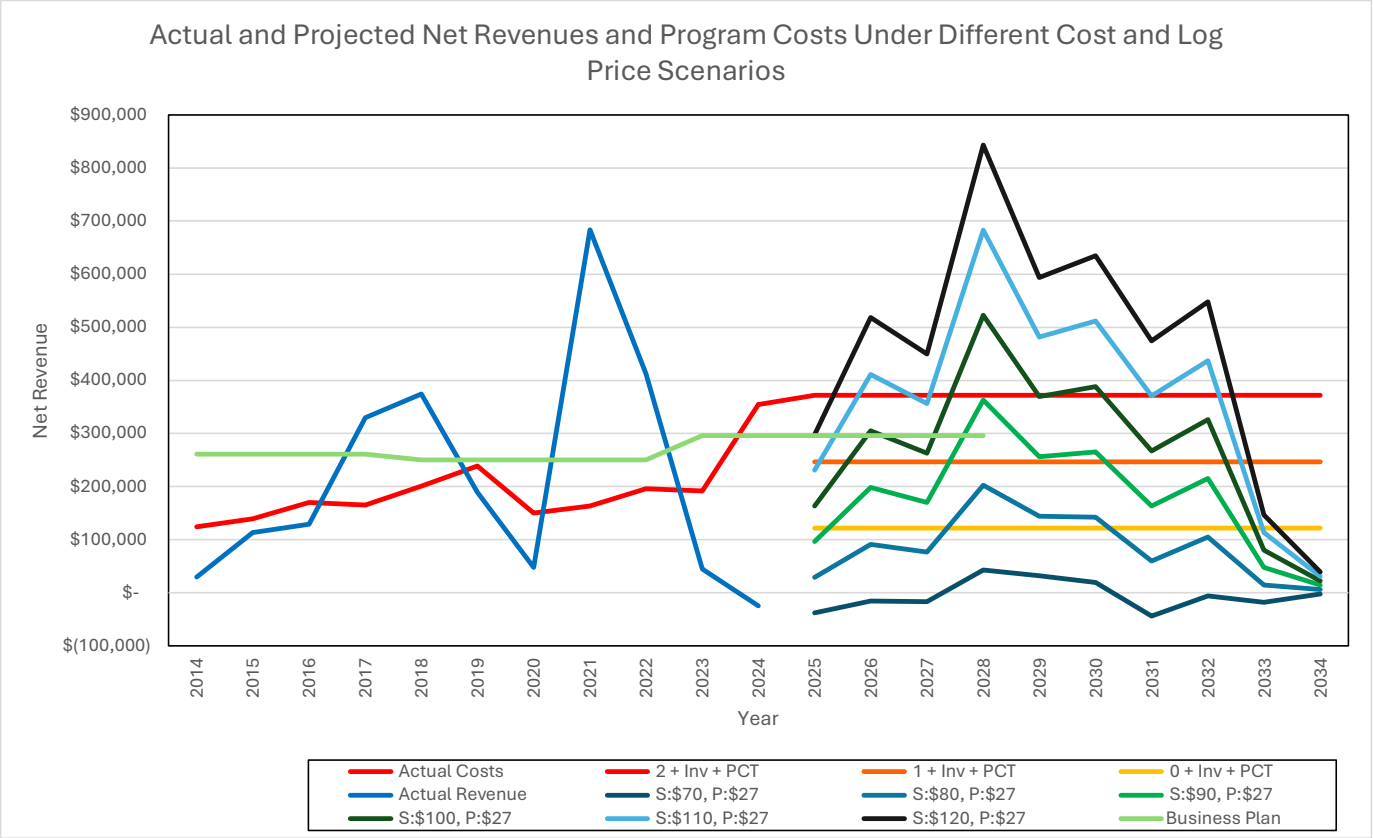
From 2014-2024 the stewardship and restoration treatments funded Forest Stewardship Program including the Stewardship Forester salary, interns, and other costs. The cost structure of the program changed in late 2023 with the addition of the Natural Resources Supervisor salary and benefits to the Forest Stewardship Program budget. Moving forward investments will be needed in forest inventory data and young stand thinning to meet stewardship and restoration goals. Costs used in scenario analyses include:

- Salary and benefit costs of $125,000/yr per position funded
- Forest inventory investment of $14,250/yr to meet inventory needs
- Young stand thinning investment of $32,500/yr to meet restoration targets
- ~~Other expenses are the average from 2014-2024~~

[57] Per-ton equivalent of 5.7% of per-ton price.
[58] Per-ton equivalent of 4% of per-ton price.

~~Appendix E – Combined Revenues and Costs~~



Appendix E - Kitsap County Parks Forestry Program Planning Schedule 2025-2034

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Cross hatching indicates that scope and schedule of these actions depend on outcomes of Parks Stewardship Planning process and other factors.

* Project implementation activities will be based on outcomes of park and project planning processes. Activities may include thinning, invasive species treatment, habitat enhancement, etc. depending on what needs are identified.

Park	Forest Planning	Stage	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Port Gamble	Park Stewardship Plan *Current Plan: 2015*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment										
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Rude Road Site	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment										
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Eglon Forest	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment			*Timing of projects will be determined after Park Stewardship Planning*							
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Banner Forest	Park Stewardship Plan *Current Plan: 2015*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment			*Timing of projects will be determined after Park Stewardship Planning*							
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
North Kitsap	Park Stewardship Plan *Current Plan: 2015*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment				*Timing of projects will be determined after Park Stewardship Planning*						
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Newberry Hill	Park Stewardship Plan *Current Plan: 2013*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Illahee Preserve	Park Stewardship Plan *Current Plan: 2003*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Bandix Dog Park	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Gordon Park	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment										
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Coulter Creek	Park Stewardship Plan *Current Plan: 2017/2021*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										

		Monitoring											
South Kitsap	Park Stewardship Plan *Current Plan: None*	Park Assessment											
		Outreach & Planning											
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*					
		Planning & Permitting											
		Project Implementation*											
		Monitoring											
Wicks Lake	Park Stewardship Plan *Current Plan: 2022*	Park Assessment											
		Outreach & Planning											
	Project Plan	Project Assessment											
		Planning & Permitting											
		Project Implementation*											
		Monitoring											
Hansville Greenway	Park Stewardship Plan *Current Plan: 2012*	Park Assessment											
		Outreach & Planning											
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*					
		Planning & Permitting											
		Project Implementation*											
		Monitoring											

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Forest Stewardship and Restoration Program 10-year Strategic Plan

2025 – 2034

Prepared by: Kevin Ceder, Stewardship Forester, Kitsap County Parks

September 30, 2025

DRAFT SEPT 2025

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Introduction

The Forest Stewardship and Restoration Program works to ensure the long-term health of the forests on Kitsap County parks by returning habitats, compositions, and structures toward historical and desired conditions. Stewardship of the forests on Kitsap County parks involves management actions and activities that maintain and enhance the forests to ensure that they will be passed to future generations of Kitsap County residents in healthy conditions (*sensu* Helms 1998). Restoration is the process of altering the conditions of forests that have departed from desired conditions through the management by past landowners so they will more closely align with desired conditions in the future (*sensu* Helms 1998). Desired conditions are guided by historical conditions and tempered by past and expected future climate changes. Using both stewardship and restoration over the coming years and decades the Forest Stewardship and Restoration Program seeks to create conditions on Kitsap County parks that are resilient to future expected climate change and provide high quality habitats that are refugia for wildlife and the people of Kitsap County.

This Forest Stewardship and Restoration 10-year Strategic Plan provides a high-level, system-wide plan to implement the updated Forest Stewardship and Restoration Policy (Ceder and Weber, in review) for the next 10 years – 2025 through 2034. To provide context for the program moving forward, the program's performance during its first eleven years – 2014 - 2024, including restoration thinning, road maintenance and construction, and financial returns, is reviewed. The scope and scale of the Forest Stewardship and Restoration Program's work is presented in a brief review of the Program's focus parks – larger forested parks that were previously managed as timberland. A statement of the Program's purpose and need provides the reasons for performing forest stewardship and restoration activities within the focus parks. Foreseeable forest stewardship and restoration activities to meet the purpose and need are then presented, which provide the core of the strategic plan. Forest stewardship and restoration activities are summarized by activity type for each focus park for the short- (2025 – 2027) and long-term (2028 – 2034) with expected costs and revenues where they can be reasonably estimated. Expected revenues and costs of foreseeable forest stewardship and restoration activities, along with estimated program costs, are evaluated to determine operational sustainability.

Over the next 10 years some type of forest stewardship and restoration activities (such as assessment, monitoring, planning, and/or project implementation) are needed in all focus parks. Performing assessment and monitoring to determine current conditions and forest stewardship and restoration plan development will happen on all focus parks to update existing assessments and plans, monitor forest growth and development, undertake new assessments and plan development, and get the parks set up for a 10-year assessment and planning cycle moving forward. Approximately 2,376 acres are planned for assessment and monitoring over the next three years, with an expected investment of approximately $35,640[1] for contract forest inventory data collection, with the remaining areas planned for the following 7 years. Project implementation of

[1] Estimate based on initial estimates from potential contractors. This estimate is subject to change during implementation when actual prices are realized.

forest stewardship and restoration treatments would happen where assessment, monitoring and planning determine where treatments are both ecologically needed and appropriate. Preliminary assessments using the best publicly-available, high level data suggests that thinning treatments are needed and appropriate on approximately 1,378 acres during the next ten years. Additionally, there are approximately 655 acres needing young stand thinning during the next ten years to ensure that these stands remain vigorous and grow into healthy forests.

Past Performance

During the first 11 years of the Kitsap County Parks Forest Stewardship and Restoration Program – from 2014 through 2024 – restoration treatments were conducted on approximately 2,467[5] acres of large, forested parks. Along with these treatments approximately 17.25 miles of roads were maintained, improved, or constructed. Approximately 0.5 miles were abandoned, 6 water crossing structures removed, improved, or replaced, and 2 drainage structures were added. After accounting for road work and other costs, these treatments generated approximately $2,329,000 of revenue to the Parks Department.

Revenues generated by restoration treatments were sufficient to support the Forest Stewardship and Restoration program during this time, though revenues were highly variable between years (Figure 1). This is the result of highly variable sawlog prices, which ranged from a low of $68/ton in 2014 to a high of $120/ton in 2022, and generally flat pulp log prices ranging from $35-$39/ton. Generally, whenever sawlog prices were over $90/ton, thinning operations were profitable but were not profitable below this price. Profitable years also coincided with thinning projects in older forests with larger trees. Larger trees produce more sawlog volume and less pulp log volume resulting in higher valued log mixes that coincided with high logs prices resulting in some high returns to the Forest Stewardship and Restoration Program account. By the end of 2023 that account had grown to approximately $700,000. 2024 was a transition year with the new Stewardship Forester, the addition of the Natural Resources Supervisor, and completion of remaining planned stewardship and restoration treatments. The additional position increased costs to the Forest Stewardship and Restoration Program while log prices decreased to $78/ton reducing net revenues and causing losses from the final stewardship and restoration treatments. By the end of 2024 the account balance had been reduced to approximately $350,000 as stewardship and restoration projects were paused pending additional assessments and planning.

[5] Differences exist between acreages reported in Forest Practices Applications and acres reported here as since there is no clear linkage between permitted area and area harvested in some years in available log sales reports.

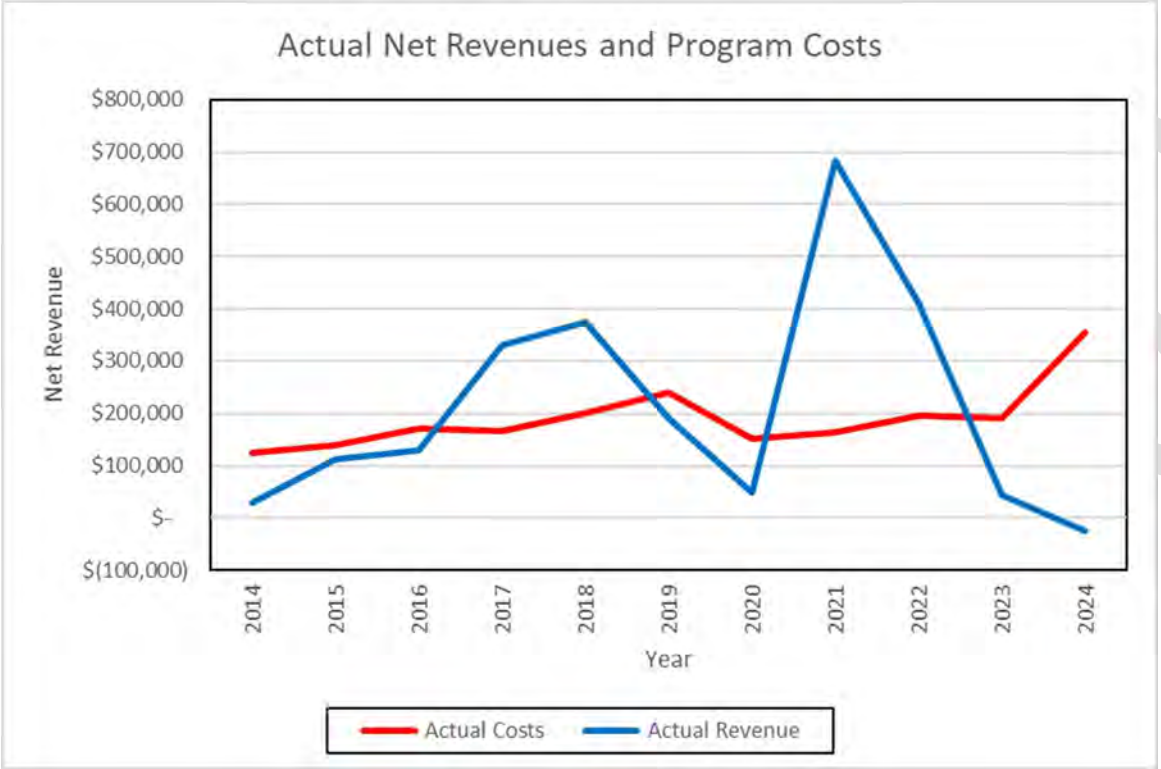

Figure 1: Actual revenue and costs for the Forest Stewardship and Restoration Program from 2014 – 2024. The large uptick in costs for 2024 is the addition of a second salary to the Forest Stewardship and Restoration Program budget.

Though the Forest Stewardship and Restoration Program did complete an extensive amount of revenue-generating thinning projects from 2011-2024, it did leave a backlog of non-commercial thinning and post-harvest monitoring which require investments rather than generating revenue. Management plans for North Kitsap Heritage Park, Newberry Hill Heritage Park, and Coulter Creek Heritage Park prescribed non-commercial treatments on approximately 280 acres, though it appears that these treatments were not implemented. In addition, there were areas that were not treated during commercial treatments because the trees were too small to be marketable, but no follow-up treatments were completed, though there is treatment need. Avoiding these treatments, which are needed to help maintain healthy, vigorous forests, avoided the costs of these treatments. Likewise, little, if any, post-treatment forest inventory data were collected. These data are needed to determine post-treatment conditions and provide a basis for future planning, avoiding costs of contracting or volunteer oversight. Neglecting these important steps of forest stewardship and restoration increased profitability during the first 10 years of the forest stewardship program, but pushed the costs of activities to the future because they will need to happen at some point.

See Appendix A – Past Stewardship and Restoration Activities for a detailed assessment of the past performance of the Forest Stewardship and Restoration Program.

Focus Parks

This plan focuses on 13 larger, forested Kitsap County parks (Table 1) where forest stewardship and restoration activities may take place over the next 10 years. These parks are unique among 75+ parks managed by Kitsap County because they were generally managed as production timberlands by previous owners, including the Washington State Department of Natural Resources and private landowners prior to County acquisition. Most forests in the parks are densely and uniformly stocked with Douglas-fir trees that were planted following harvesting[6]. Other areas were naturally regenerated with conditions that range from well-spaced, diversely sized trees to densely packed small diameter trees. Parks management objectives for these lands are to increase the size and diversity of trees in park forests and create forests that are resilient to climate change, insects, and disease through forest stewardship and restoration activities (Ceder and Weber, in review). See

[6] Planting following regeneration harvesting has been required since January 1, 1946. https://historylink.org/File/5287#:~:text=On%20January%201%2C%201946%2C%20the,logs%20that%20they%20have%20harvested. Last accessed 1/22/2025.

Appendix B - Focus Park Descriptions for brief descriptions of each park.

Table 1: Kitsap County Parks where the Forest Stewardship and Restoration Program will focus from 2025 - 2034

Park Name	Region	Park Acreage
Bandix Dog Park	South	30
Banner Forest Heritage Park	South	636
Coulter Creek Heritage Park	South	1,549
Eglon Forest	North	707
Gordon Park	Central	54
Hansville Greenway	North	283
Illahee Preserve Heritage Park	Central	468
Newberry Hill Heritage Park	Central	1083
North Kitsap Heritage Park	North	818
Port Gamble Heritage Park	North	3,374
Rude Road Site	North	203
South Kitsap Regional Park	South	200
Wicks Lake Park	South	178
Total		9,583

Reserve areas

Across Forest Stewardship and Restoration Program focus parks there are approximately 1,645 acres (approximately 17% of the park area) of reserve areas. Most of the reserve areas, approximately 1,528 acres, are regulatory reserves – riparian management zones (RMZs) and wetland management zones (WMZs) – that are prescribed by the Washington Department of Natural Resources to protect stream and wetland resources during timber harvesting[7]. Within these areas some thinning may happen under specific conditions[8]. On Banner Forest there is an additional 117-acre voluntary reserve. This area is the portion of conservation easement held by the Great Peninsula Conservancy that is outside of regulatory reserves. This conservation easement was established soon after the park was transferred to Kitsap County and does not allow any tree cutting or harvesting within the easement as the easement is currently written. However, this may change, in consultation with Great Peninsula Conservancy, if assessments and planning reveal conditions that are not meeting the goals of the conservation easement.

Forest Stewardship and Restoration Purpose and Need

The forest stewardship and restoration purpose and need is taken from the Forest Stewardship and Restoration Policy (Ceder and Weber, in review).

[7] These areas are different than those prescribed under the Kitsap County Critical Areas Ordinance in that they are based on harvested areas remaining forest, with maintained ecological functions, rather than converted to non-forest uses and the loss of ecological functions.

[8] See WAC 222-30-020 (https://app.leg.wa.gov/Wac/default.aspx?cite=222-30-020, last accessed 1/22/2025) and WAC 222-30-021 (https://app.leg.wa.gov/Wac/default.aspx?cite=222-30-021, last accessed 1/22/2025)

The purpose for forest stewardship and restoration activities by the Forest Stewardship and Restoration Program is to create forest conditions on Kitsap County Parks that:

- Have compositions and structures that facilitate the growth of large, vigorous[9] trees that are resilient to insects, diseases, expected climate change, and potential wildfires,
- Provide high quality terrestrial, aquatic, and riparian habitats that have high ecological function and ecosystem services production,
- Maintain and enhance soil conditions and productivity.
- Allow opportunities for public and cultural foraging and gathering, and
- Are refugia for wildlife and humans in an increasingly developing and urbanizing environment.

Forest stewardship and restoration treatments are needed to create these conditions because:

- Forests on Kitsap County parks are primarily dominated by primarily small (10-15" average DBH) and medium (16-20" average DBH) with high to very high levels of inter-tree competition while lacking areas dominated by large (20-30" average DBH) and very large (>30" average DBH) trees[10] (Figure 2). This is the legacy of industrial forest management by the previous owners of the park lands.
- Tree growth and vigor are reduced in high and very high competition forests where most trees near or approaching their maximum diameter given the number of trees in the forest.
- Tree health is reduced in high and very high competition forests where trees are stressed and increasingly susceptible, and succumbing to mortality from insects, diseases, and competition for limited resources.
- Ecosystem services, including high quality wildlife habitats, carbon sequestration, vegetation diversity, foraging and gathering opportunities, etc., are reduced in high and very high competition forests with slow-growing small to medium diameter trees, little, if any, functional standing dead and downed wood, dense, single-layer tree canopies, and suppressed understory vegetation.
- Ecological function is reduced, especially in previously harvested areas along streams and wetlands, in high and very high competition forests that lack functional large woody debris and trees that would become functional large woody debris, understory vegetation is suppressed and sparse, and deciduous trees are lacking.

Where needed and appropriate[11], forest stewardship and restoration treatments would change forest conditions by:

[9] "Vigorous" refers to tree growth.

[10] Donato *et al.* (2020) and D. Danato (personal communication, April 4, 2024) suggest that pre-contact forests in the western Cascade Range and Kitsap County were primarily dominated large and very large trees based on historical disturbance regimes.

[11] All areas with treatment need may not be treated. This would include, but not limited to, areas excluded from treatment by applicable regulations or where environmental or societal concerns outweigh the ecological need for treatment.

- Removing trees to create additional room for lager trees and provide access to greater resources. This would include removing smaller trees to mimic competition-related mortality, groups of trees to mimic mortality from root diseases, and/or other treatments.
- Creating openness in the canopy and/or canopy gaps to allow increased light to reach the forest floor to increase growth of existing understory trees and vegetation and/or to establish a new cohort of trees and understory vegetation.
- Creating standing dead and downed wood where they are lacking to improve wildlife habitat and ecosystem function.
- Removing trees and creating openness or openings in the canopy would:
    - Increase tree growth, vigor, and resilience to insects, diseases, and expected climate change.
    - Improve overall forest health by reducing competition, stress, and impacts from insects, diseases, and expected climate change.
    - Improve ecosystem services, including carbon sequestration, wildlife habitat, species diversity, and foraging and gathering opportunities and ecosystem function through increased tree growth and understory vegetation production.

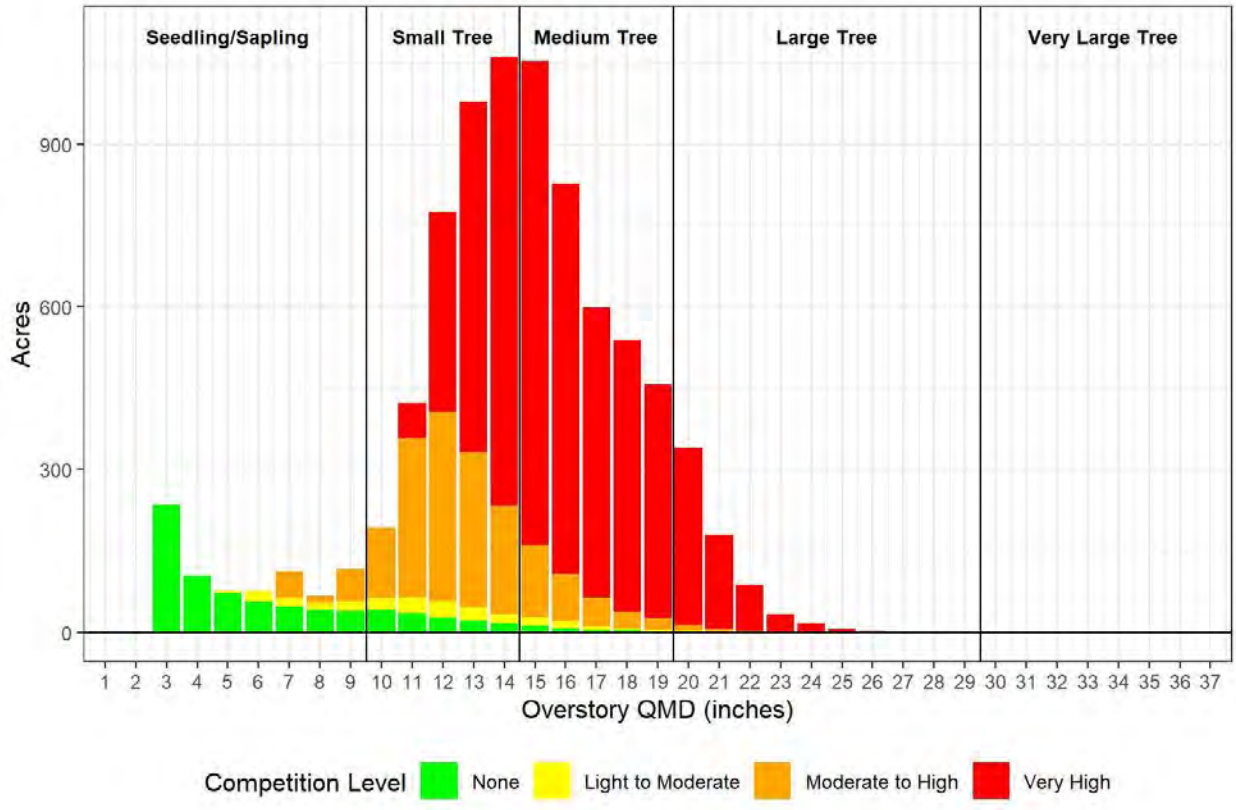

Figure 2: Acreages of parks by dominant tree sizes and competition levels. Dominant tree sizes are the average diameter of the largest 100 trees per acre. Competition levels are based on percentage of maximum stocking[12] as <25%, 25-35%, 35-55%, and >55% for None, Light to Moderate, Moderate to High, and Very High. Data for tree sizes, competition levels

[12] "Stocking" refers to the number of trees in an area with the maximum varying based on the sizes and species of trees.

and maximum stocking from RS FRIS and other data from the Washinton Department of Natural Resources. Tree size classes, Seedling/Sapling, Small Tree, Medium Tree, Large Tree, and Very Large Tree based on O'Neil et al. *(2001).*

Stewardship and Restoration Activities

Stewardship and Restoration activities are the processes used to address forest stewardship and restoration needs and to move forests on Kitsap County parks toward desired conditions. These activities generally fall within one of five conceptual components of restoration (Figure 3). In practice these activities would be lumped into three categories – assessment and monitoring, planning and permitting, and implementation and management – where actions are similar, if not the same. Additional information about stewardship and restoration activities can be found in the Forest Stewardship and Restoration Policy document (Ceder and Weber, in review).

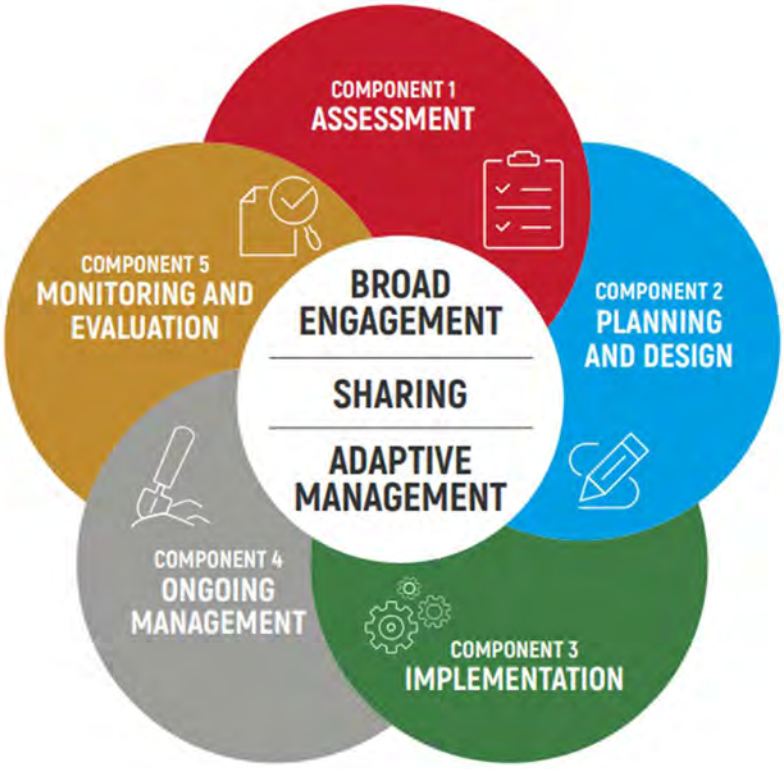

Figure 3: The conceptual framework for restoration that is guiding work by Kitsap County Parks. From SER: STANDARDS OF PRACTICE TO GUIDE ECOSYSTEM RESTORATION A contribution to the United Nations Decade on Ecosystem Restoration 2021–2030.

Stewardship and restoration activities may occur at the park and/or project level following this system-wide strategic plan:

- **Park-Level Activities** would happen prior to project-level activities, including**:**
  - ↳ **Park-Level Assessments** would collect data from across a park to quantify and qualify the existing conditions of the forest, vegetation and other resources in the

park. Results from the park assessments would highlight locations and severities of forest health issues, departures form desired conditions, invasive species issues, and other indicators of forest stewardship and restoration treatment needs. During park-level assessments the public may be engaged through citizen science programs to help collect additional data to support assessments.

  - ↳ **Park-Level Planning** would use the results of park-level assessments to guide the design, specifications, and scheduling of forest stewardship and restoration treatments in the park to address treatment needs and begin moving the forests in the park toward desired conditions. During park-level planning public outreach will happen through open houses, field tours, and/or other means to ensure that the public understands the park stewardship recommendations based on assessment data and have an opportunity to provide feedback about community desires and concerns.

- **Project-Level Activities** would happen following park-level activities and will be based on the findings or the park level plans. Project-level activities are where the work of forest stewardship and restoration happen to begin moving forests toward desired condition and include**:**
  - ↳ **Project-Level Assessments** may be needed to determine the presence and/or conditions of fine-scale resources within project areas such as wetlands, streams, seeps, springs, snags or other wildlife habitat features, vegetation communities, invasive species, etc. Results from these assessments would help guide the final scope and scale of project areas.
  - ↳ **Project-Level Planning and Permitting** would refine project specifications and schedules based on results from park and project-level assessments and acquire necessary project permits. Project-level planning would also address expected impacts of the project on the forest, vegetation, visual, and recreational resources in the project including during the project, the short term (1-5 years post-protect), and the long-term (6-30 years post-protect). During permitting, a SEPA (State Environmental Policy Act) checklist is completed to disclose environmental impacts and agencies, including the Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, and Tribes, to help ensure that detrimental impacts are avoided, minimized or mitigated.
  - ↳ **Project-Level Implementation and Management** would happen following project-level planning and permitting to implement forest stewardship and restoration activities including thinning, young stand thinning, habitat enhancement, road maintenance, construction, or abandonment, water crossing structure maintenance, replacement, or removal, etc.
  - ↳ **Project-Level Monitoring/Invasives Assessment** would happen during, or immediately after, implementation to ensure projects specifications were met. Additional monitoring and invasives assessments would happen at regular intervals following implementation to evaluate responses to stewardship and restoration treatments and catch any invasive species outbreaks before they become

established. If additional actions are needed to achieve restoration goals, additional project-level assessment, planning, and permitting will occur prior to implementation.

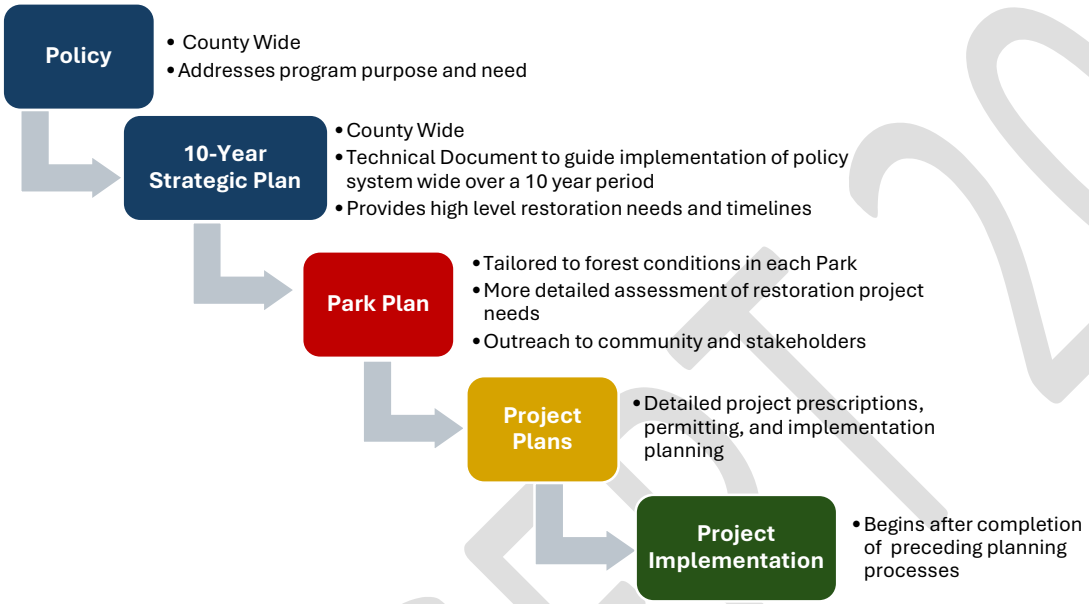

Figure 4: Planning Structure for Forest Stewardship & Restoration

Over the next 10 years all area with the focus parks would have some type of stewardship and restoration activity (Table 2: Preliminary acreages for each stewardship and restoration activity type foreseen to meet forest stewardship and restoration needs in the near-term (2025, 2026-2027) and long-term (2028-2034). The bulk of these activities are assessment and monitoring followed by planning and permitting, to get focus parks set up on a 10-year assessment and planning schedule. Permitting and management/implementation would be done on smaller area of the focus parks as specified by completed park-specific forest stewardship and restoration plans. See Appendix F for the 10-year planning schedule.

Table 2: Preliminary acreages for each stewardship and restoration activity type foreseen to meet forest stewardship and restoration needs in the near-term (2025, 2026-2027) and long-term (2028-2034)

Level	Activity Type	2025	2026-2027	2028-2034
Park	Assessment		2,418	7,146
Park	Planning		1,600	7,964
Project	Planning and Permitting	110	52	1,859
Project	Management/Implementation-Thinning/Roadwork	110	52	1,204

Project	Management/Implementation-Young stand thinning	0	0	655
Project	Project Monitoring and Invasives Assessment	110	52	1,859

Park-Level Activities

Activities at the park-level scale include park assessment and park planning. During park assessment data are collected from across a park, such as forest inventories, road inventories, forest health assessments, stream and wetland surveys, vegetation sampling, etc., to give an overall view of the current conditions in the park. Park planning uses the results from the park assessment to determine what conditions may exist that have departed from desired conditions and may benefit from forest stewardship and restoration projects. Treatment specifications, and schedules are determined to address departures and expected short- and long- term effects are determined. Preliminary schedule of Park-level activities is included in Appendix E - Kitsap County Parks Forestry Program Planning Schedule 2025-2034.

Park Assessment

Assessment activities are used to describe current conditions, determine differences from desired conditions, and progress made developing toward desired conditions. This generally takes place before other activities, such as thinning, but may also happen after activities, to determine post-treatment conditions, or while treatments are occurring to ensure contract compliance. Work done during assessment and monitoring are similar, if not the same, and often overlap each other to close the loop on a forest stewardship and restoration cycle (Figure 3).

Assessment are needed on all parks over the next 10 years to support proposed forest stewardship and restoration planning, permitting and implementation/management activities. Currently, many parks have either not had assessments, the timing of the assessments are unknown, or are currently over 10 years old or will be within the next 10 years. Assessments will be prioritized based on lack of assessment or assessment age along with potential restoration needs (Table 3). Accomplishing this would require assessments on an average of approximately 950 acre per year.

Meeting the proposed schedules and data quality needs will require investments in professional data collection[13]. Past forest inventory data collection relied on trained volunteers to collect pre-harvest inventory and post-harvest monitoring data to meet past program needs. Going forward this paradigm would likely not produce the data quantity and quality needed to support planned stewardship and restoration activities. Contracting professional forest inventory data collection would ensure high quality data are collected in a timely manner and meet proposed stewardship and restoration activity schedules (Table 3) and meet the needs for grant applications, forest certification, and carbon projects. Initial estimates for contract forest inventory data by American Forest Management through the current professional services agreement is approximately $15/acre – approximately $14,250/year to meet data collection needs. Contract inventory and monitoring data collection can be easily overseen and managed with current staffing levels. Performing the

[13] Other groups performing similar forest restoration, including GPC, rely on contract data collection.

needed amount of data collection with trained volunteers, interns, or staff would require 1-2 additional FTEs per year, which is more than the cost of contracting. Additional resource inventories, such as road and culvert conditions, may be collected by Parks staff, interns, and/or trained volunteers.

Table 3: Preliminary park assessment schedule.

Year(s)	Park(s)	Estimated Acreage
2025	Port Gamble Forest[14]	110
2026-2027	Rude Road Site	204
	Eglon Forest	707
	Banner Forest	636
	Gordon Park	53
	North Kitsap	818
2028-2034	Illahee Preserve	459
	Port Gamble	3,373[15]
	Newberry Hill	1,083
	Coulter Creek	1,549
	Hansville Greenway	296
	South Kitsap	200
	Wicks Lake	156
	Bandix Dog Park	30

Stewardship and Restoration Research/Case Studies

Assessment and monitoring in focus parks provides opportunities for forest stewardship and restoration research. Little forest restoration research exists specifically for lowland Douglas-fir forests of the Puget Sound Trough Forests, like those in Kitsap County. This provides an opportunity to start monitoring research projects in focus parks to evaluate the forests' responses to stewardship and restoration treatments. These projects would provide opportunities for collaboration with universities, colleges, and local schools through engaging faculty and students in designing and implementing the research projects. Results from these monitoring projects would be made available to the public, practitioners, and the scientific community through publication in scientific journals, presentations at scientific conferences, or other outlets.

Park Planning

Park-level planning uses results from park assessments and monitoring to creates park- specific stewardship and restoration plans. During park planning, park-specific assessment results are used to determine stewardship and restoration treatment needs for the park. Treatment prescriptions and schedules would be created to address restoration needs along with evaluations

[14] Four areas will be assessed prior to forest restoration treatments. The remainder of the park will be assessed at a later time. Additional areas, such as regenerated and released harvest units may be assessed as well.

[15] Actual acreage will depend on the area released from the timber deed prior to assessment.

of expected short- and long-term treatment effects, including how forests in the park are expected move toward desired conditions.

Park-level planning is needed on all focus parks during the next 10 years to support forest stewardship and restoration. Plans are developed or updated using park-specific assessment data and results to determine park-specific stewardship and restoration needs, develop project specifications and prescriptions to meet the needs, a schedule for projects, and quantify and/or qualify expected short- and long-term outcomes from the treatments. Resulting plans would provide:

1. A data driven justification for stewardship and restoration treatments in the park that supports the goals and objectives outlined in the Forest Stewardship and Restoration Policy (Ceder and Weber, in review).
2. A schedule for projects.
3. Expected short- and long-term effects from the treatments, which may include:
    a. Impacts on recreational opportunities
    b. Changes in forest conditions from treatments
    c. How forests are expected to move toward desired conditions

Outreach and Collaboration

Outreach and collaboration would happen during the planning process to communicate assessment findings, stewardship and restoration needs, and proposed projects to the public and other stakeholders. This would also be an opportunity to solicit comments and feedback about the park stewardship and restoration plan, which would be used to help refine the plan. See the Policy (Ceder & Weber, in review) for further description of outreach and collaboration activities.

To ensure that plans updated on a 10-year schedule moving forward, parks staff, lead by the stewardship forester, would complete one park per year. Park planning would follow completed park assessments. A preliminary schedule for park planning is in Table 4. These park level plans will be presented to the Board of County Commissioners for input and final review

Table 4: Preliminary schedule for park plan development or updates.

Year(s)	Park(s)	Acreage	Current Plan Year
2025	Port Gamble Forest[16]	110	2015
2026-2027	Rude Road Site	204	No current plan
	Eglon Forest	707	No current plan
	Banner Forest	636	2015[17]
	Gordon Park	53	No current
2027-2028	North Kitsap	818	2015[18]

[16] Four areas will be assessed prior to forest restoration treatments. The remainder of the park will be assessed at a later time. Additional areas, such as regenerated and released harvest units may be assessed as well.
[17] Plan was created by the Banner Forest Watch group independently of Kitsap County Parks and covers all management aspects for Banner Forest providing little guidance for forest stewardship and restoration.
[18] No prescribed treatments completed except minimal thinning completed in only one small unit.

2028-2034	Illahee Preserve	459	2003
	Port Gamble	3,373[19]	No current plan
	Newberry Hill	1,083	2013
	Coulter Creek	1,549	2017/2021[20]
	Hansville Greenway	296	2012
	South Kitsap	200	No current plan
	Wicks Lake	156	2022
	Bandix Dog Park	30	No current plan

Project-Level Activities

Projects proposed in park-level plans will receive additional assessment and planning before implementation and management. Additionally, some projects will be planned in parks where stewardship and restoration plans are in place or where the park is currently a working forest. In these cases, planning would be limited to specific treatment areas where needs are known. Planning would be focused on developing project specifications and prescriptions to address treatment needs.

Preliminary analyses of remotely sensed data and limited field review of forests on Kitsap County Parks suggest that approximately 1,970 acres of forest and approximately 8.5 miles of road may need some level of forest restoration activities (Table 5). The scope, scale, and timing of these currently foreseen stewardship and restoration projects will be determined once park and project level assessments and planning have occurred. Until park and project planning is completed acreage for thinning activities and mileage of road maintenance are very preliminary to support program work planning. These acreage and mileage values are expected to change, possibly significantly, during planning.

Table 5: Currently foreseen project level planning, permitting, implementation and management for forest stewardship and restoration activities. ***Activities may occur at some point within the year ranges presented. Actual timing, acreage, and road mileage will be determined during park-level planning.***

Estimated Year(s)*	Park	Potential Activities	Preliminary Acreage Estimate[21]	Preliminary Road Mileage Estimate[22]
* Years are an estimation to support work planning. Actual timing, acreage, and road mileage will be determined during park-level planning.				
2025	Port Gamble Forest[23]	Thinning	110	0.5
		Road Maintenance		0.5
	North Kitsap Heritage Park	Culvert cleaning	NA	NA
2026-2027	Rude Road Site	Thinning	19	0

[19] Actual acreage will depend on the area released from the timber deed prior to assessment.
[20] 2021 update added Square Lake to the Coulter Creek Forest Stewardship and Restoration Plan.
[21] Preliminary acreage estimate developed for remotely sensed data and limited field review. These acreages will change during park and project level planning.
[22] Preliminary road maintenance mileage estimated developed from remotely sensed data with limited field review. These mileages will change during park and project level planning.
[23] A project level plan will be developed for four areas will be planned prior to forest restoration treatments.

	Gordon Park	Thinning	33	0
TBD	Eglon Forest	Thinning	390	
		Road Maintenance		3.5
		Young Stand Thinning[24]	98	
	Banner Forest Heritage Park	Thinning	315	NA
		Road Maintenance		2.0
		Young Stand Thinning[25]	93	NA
	North Kitsap Heritage Park	Thinning	333	
		Road Maintenance		TBD[25]
		Young Stand Thinning[25]	127	NA
TBD	Newberry Hill Heritage Park	Thinning	97	
		Road Maintenance		1.0
		Young Stand Thinning[25]	83	NA
	Coulter Creek Heritage Park	Thinning	69	0.5
		Road Maintenance		0.5
		Young Stand Thinning[25]	44	NA
	Bandix Dog Park	Thinning	12	0
	Port Gamble Forest	Young Stand Thinning[25]	78	NA
	Rude Road Site	Young Stand Thinning[25]	132	NA
	Gordon Park	Thinning	33	0
	Bandix Dog Park	Thinning	12	0
	Port Gamble Forest	Young Stand Thinning[25]	78	NA
	Rude Road Site	Young Stand Thinning[25]	132	NA

Project Assessment

Forests within proposed project areas will receive detailed project area assessments to further describe and quantify conditions within the project unit and support project planning. The intent of the assessments is to take a good, hard look at the forest before final planning and implementing forest stewardship and restoration activities. These assessments may include, but are not limited to:

- **Plot-based forest inventory data collection** to quantify tree sizes, numbers, species, and conditions. These data are used to support silvicultural prescription development to address ecological needs and to forecast expected short- and long-term effects from stewardship and restoration activities.
- **Aquatic resource location and/or delineation** to quantify the scope and scale of these sensitive resources. These data are used to support treatment area and resource protection buffer delineations to minimize potential adverse impacts from stewardship and restoration activities.

[24] Timing of young stand thinning may change depending on the outcome of a grant application that would cover all young stand thinning costs.

[25] Road maintenance needed will be determined during planning when known access issues are addressed.

- **Wildlife habitat evaluations** describe and quantify forest elements – snags, downed logs, forage, fruit, and/or mast producing vegetation, etc. – that contribute to wildlife habitats. These data help guide treatment specifications and prescriptions and help understand how stewardship and restoration activities may impact wildlife habitats.
- **Vegetation/invasive species surveys** describe and quantify vegetation communities and compositions, including extant invasive species. These data are used to guide treatment specifications and prescriptions and what may be expected following stewardship and restoration treatments.
- **Road condition surveys** locate potential issues with existing forest roads that may need to be addressed during stewardship and restoration activities. Addressing road issues, including drainage and water crossing structures, during stewardship and restoration activities helps minimize adverse impacts to aquatic resources.

Project Planning

Detailed project plans are developed using the results of assessments to support permitting and implementation. Elements of project plans may include, but are not limited to:

- **Delineating and marking restoration area boundaries and buffers** to define the extent of the area receiving restoration treatments. Any sensitive areas – wetlands, streams, etc. – are delineated and buffers marked to protect these resources. Boundaries will be delineated and mapped in a GIS with boundaries marked with flagging, or other means, in the forest.
- **Refining treatment specifications and prescriptions** to further describe why restoration treatment are needed and to specify the types, sizes, and species of trees that are to be retained or cut during treatments. Expected conditions following treatments are specified to support evaluations of expected future effects and conditions. Treatment specifications, desired conditions, and expected future conditions may be guided by results from forest growth model simulations using models like the USFS's Forest Vegetation Simulator (FVS)[31]. Where road work is needed, estimate the scope and scale of the work needed.
- **Estimating potential volume removals and financials** to support project contracting and project implementation. Expected volume removals predicted by FVS during treatment specification and prescription development are compiled to be included in contract bid packages. This information will also be used to develop preliminary financial figures for the projects to assess the potential impacts on County budgets.
- **Scheduling stewardship and restoration projects** to help minimize adverse impacts on sensitive resources, wildlife and/or parks users.

Project Permitting

Necessary permits for projects would be procured from appropriate agencies (e.g. Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington

[31] Publicly available from the USDA Forest Service at: https://www.fs.usda.gov/managing-land/forest-management/fvs (Last accessed 29 September 2025)

Department of Ecology, Kitsap County Department of Community Development, etc.) with sufficient lead time to meet treatment schedules. Permitting may include, but not limited to:

- **Forest Practices Application/Notification (FPA)** – Submitted to the Washington Department of Natural Resources for thinning projects, forest road construction/betterment, or other activities as required. These activities within parks include a review by an interdisciplinary team that includes representatives from the Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, and Native American Tribes, who can recommend changes to the project to protect resources.
- **Forest Practices Hydraulic Permit (FPHP)** - Submitted the Washington Department of Natural Resources for projects involving water crossing structures in forest roads over typed water. These activities also include a review by an interdisciplinary team that includes representatives from the Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Washington Department of Ecology, and Native American Tribes, who can recommend changes to the project to protect resources.
- **State Environmental Protection Act (SEPA) Checklist** – Submitted to Washington Department of Natural Resources or Washington Department of Ecology for thinning, road, and other projects in parks
- **Kitsap County Timber Harvest Permit** – Submitted to Kitsap County Department of Community Development when areas of parks would be converted from timber to not-timber use (such as a parking lot or sports field).

Permit applications would be prepared by Parks staff. However, some aspects of preparation for permitting, such as marking treatment area boundaries, riparian management zones, wetland management zones, etc. prior to submitting the FPA, may be completed by contractors through the professional services agreement with American Forest Management[32].

Permitting beyond 2026 will depend on yet to be completed park-specific forest stewardship and restoration plans and associated schedules. However, it is expected that permitting would happen continuously to support treatments on approximately 197 acres[34] of stewardship and restoration projects per year, including approximately 132 acres of thinning and approximately 65 acres of young stand thinning. The scope and scale of permitting would depend on plan schedules and treatment priorities.

Project Implementation and Management

Implementation and management permitting to put projects in place on the ground to address forest stewardship and restoration needs. With plans, prescriptions, and permits in-hand, projects would be implemented to address forest stewardship and restoration needs. The types of

[32] Assisting in FPA development is included in the scope of work for the professional services agreement and included in the commission price.

[34] Treatment acreage would be limited to approximately 200 acres per year to ensure that harvest levels are limited to approximately 2 million board-feet per year, which would maintain Small Forest Landowner status with the Washington Department of Natural Resources.

treatments that would be used to move forests toward desired conditions may include, but is not limited to:

- **Thinning and uneven-aged regeneration harvesting** – Remove a portion of the trees to create additional room for the remaining trees to grow, enhance understory vegetation, and/or establish and new cohort of trees. These types of activities are consistent with principles of Ecological Silviculture (Palik et al. 2020), Ecological Forest Management (Franklin *et al.* 2018), and Active Intentional Management (Carey 2007). These activities are also consistent with the ecological harvesting allowed in structurally complex and older forests under Commissioner's Order Number 202516 (Upthegrove 2025). These treatments produce merchantable trees that would typically generate revenue. Any revenues generated would depend on current log markets and logging and hauling costs, which can vary greatly.
- **Young stand thinning** – Remove a portion of the trees in a young stand to create additional room for the remaining trees to grow and develop. These treatments would require investments because the trees removed are too small to be merchantable. Current estimates for this type of thinning range from $300 - $750/acre.
- **Road construction, maintenance, and/or betterment** – Build, brush, grade, repair, rock, ditch or otherwise bring road conditions up to standard for hauling. These treatments would only be used in conjunction with thinning treatments where hauling is needed to bring in equipment and haul out logs. Estimates of cost based on past road work are approximately $20,000/mile, which is equivalent to approximately 4% of the gross timber proceeds.

Thinning and Road Projects

Preliminary assessments suggest that between 2025 and 2034 ecological thinning projects may be needed on approximately 1,315 acres to address forest stewardship and restoration needs (Table 5). To support these treatments road maintenance, betterment, and/or construction projects are expected on approximately 8.5 miles of road (Table 5). Until at least 2027 these projects would be performed by contractors through the professional services agreement with American Forest Management under Parks staff oversight. Preliminary areas needing treatment are shown in Appendix C – Preliminary Park Treatment Needs.

Young Stand Thinning Projects

Across the focus parks there are approximately 655 acres of young stands, which contain little, if any, merchantable wood to defray costs (Table 5, Appendix C – Preliminary Park Treatment Needs). These areas were planted at high densities by previous landowners with the assumption that there would be young stand thinning at some point to make space for the best trees to grow larger until they were harvested. Without the young stand thinning these stands have become extremely dense and tree growth has slowed greatly. Delaying thinning would result in trees with very small crowns and tall, slender stems that would not respond well to thinning and be at risk of heavy tree mortality from competition, insects, and diseases. Investments in young stand thinning are needed in the near-term, while trees have sufficiently large crowns to respond well to thinning, to facilitate the development of vigorous, healthy forests, and begin developing complex stand structures that are beneficial to wildlife. Initial assessments of these areas show that approximately 445 acres across the focus parks should be thinned within the next 5 years to prevent excess competition mortality

and encourage a return to vigorous tree growth The remaining 210 acres have lower competition levels and may wait for 5-10 years before treatment.

Project Monitoring and Adaptive Management

Project monitoring and adaptive management following the implementation of forest stewardship and restoration activities to ensure that forests are developing toward desired conditions as specified in park and project plans. Monitoring involves measuring and observing forest, vegetation, and road conditions at intervals following treatments and may include, but not be limited to:

- **Forest inventory data collected after treatments** to determine the types, numbers, sizes, and distributions of trees retained during treatment. Data collection immediately following, or during, treatment helps ensure that the contractor complies with treatment specifications and prescriptions. Data collected 5 and/or 10 years following treatment helps determine how the trees are responding to the increased space created during the treatment: How much bigger are the trees? Have new trees regenerated and, if so, what species are they?
- **Vegetation/invasive species surveys** to determine how vegetation has responded to the increased light hitting the forest floor. Data collected the growing year following completion of stewardship and restoration treatments and at 1–3-year intervals help monitor how vegetation is responding. How much has vegetation cover increased? What species are establishing or reestablishing? Have invasive species established in disturbed areas like landing and skid trails?
- **Habitat feature monitoring** to determine how species use snags, habitat piles, and large log analogs created during and after the stewardship and restoration project. What species are utilizing the habitat features and how? Are habitat features maintaining or developing desired microhabitat characteristics?

Information collected during monitoring will provide information about how the forest is developing, whether it is progressing toward desired conditions, and if there are any issues that need to be addressed through adaptive management. If understory vegetation hasn't responded as expected, then plantings to increase cover and diversity may be needed. If understory trees have not established as expected, tree planting may be needed. If invasive species have established, they may need to be removed by pulling, mowing, cutting, or other means. Implementing actions such as these in an adaptive management framework if/when they are needed will help ensure that forests and vegetation communities are developing toward desired conditions following stewardship and restoration treatments.

Monitoring and adaptive management would largely be performed by Parks staff, but opportunities may arise to collaboration with academic researchers, academic programs, students, community members, or other groups working on natural resources issues.

Activity Costs and Revenues

Forest stewardship and restoration activities that remove trees or maintain and improve roads are typically very high-cost operations (Table 6). However, this cost may be defrayed when logs that are removed during forest stewardship and restoration activities are sold to produce wood products.

Thinning Costs and Revenues

Thinning operations are high cost but, when logs from removed trees are sold, they may be performed at little to no cost or may even return limited revenues to the County. By far the biggest costs are logging and hauling. This is reflective of costly, high-tech equipment that is used to selectively remove trees, process them into logs, and then move the logs to a road to be loaded onto a truck. While expensive, this equipment allows the operators to minimize impacts to soils and remaining trees in the project area. Logging costs can vary based on tree sizes – areas with smaller trees are more expensive than larger trees - and terrain – steeper ground is more expensive than flatter ground. Hauling costs vary based on how far the purchaser's location is from the project area. Based on recent project costs, the overall cost to remove trees and move the logs to a purchaser may range from $50.00 - $60.50/ton.

Table 6: Costs table from Port Gamble 2025 Stewardship and Restoration Project. Logging cost is the amount charged per ton of logs to cut trees, process them into logs, then move the logs to the truck. Hauling costs are the amounts charged per ton of logs to move the logs from the project are to log purchaser destinations. Road costs are the cost per 100-feet (one station) to upgrade roads for hauling. AFM commission is a percentage of gross logs sales to contract operators, administer the contract, and market logs from the project.

Cost Item	Cost per Unit	Estimated Units	Total Cost
Logging and Hauling			
Logging (OBT)	$41.50/ton	4,950	$205,425
Hauling (Sawlogs: Manke)	$19.00/ton	4,100	$77,900
Hauling (Pulp/firewood: C&C)	$8.50/ton	425	$3,613
Hauling (Pulp: PT Paper)	$19.00/ton	425	$8,075
Total Cost			$295,013
Road Betterment	$413/station	26	$11,200
AFM Commission	5.7%	$354,350	$20,198

Logs produced from trees removed during stewardship and restoration projects are either higher priced sawlogs or lower priced pulp logs. Sawlogs are logs that are large enough – typically over 5 inches in diameter at the small end – and straight enough to produce lumber. Prices for sawlogs can be highly variable because logs markets are influenced by a combination of local, regional, national, and global influences. In late 2025 sawlog prices ranged from approximately $65.00/ton to $80.00/ton. Pulp/firewood logs are logs that are too small to crooked or damaged to make lumber. These logs can be chipped and used to make paper (pulp logs) or cut and split into firewood. Based

on recent projects the prices for sawlogs have been $80.00/ton and $31.00/ton for pulp/firewood logs.

Forest stewardship and restoration projects on Kitsap County parks have typically produced approximately 55 tons per acre of logs from removed trees with approximately 60% of the logs being sawlogs and 40% pulp/firewood logs. At recent log prices this would result in approximately $2,640/acre of revenue for sawlogs and approximately $682/acre of revenue for pulp/firewood logs. After logging and hauling costs ($60.50/ton for sawlogs, $$60.50 or $50.00/ton for pulp) and professional services agreement commissions ($150.00/acre for sawlogs and $39.00/acre) revenues are greatly reduced. Sawlog revenues are reduced to approximately $494/acre while pulp/firewood logs are removed at a loss of approximately $458-$688/ac depending on purchaser location. As a result of these current costs and revenues thinning projects are likely to break-even at best with potential financial results ranging from net revenue of $36/acre to a cost of $194/acre before including road maintenance costs.

Potential overall revenues or costs associated with forest stewardship and restoration thinning activities are highly dependent on log prices and the sizes of trees begin removed in restoration areas. If sawlog prices were to increase to $90/ton, which is the average price realized during the first 11 years of the Forest Stewardship and Restoration Program, the gross revenue for sawlogs would increase by $330/acre. This would bring project financial results into net positive territory. Likewise, when older forests that have ecological need receive forest stewardship and restoration treatments, removed trees may be larger with a higher percentage of sawlogs relative to pulp. In these cases, there would be more revenue generated from trees that are removed to meet restoration goals because they produce more sawlogs and fewer pulp/firewood logs likely resulting in overall higher revenues.

Young Forest Thinning Costs

Young forest thinning activities are an investment in future healthy forests. These activities are also high-cost as they rely on human labor to fell small (less than 8 inches d.b.h.) to make room for lager trees to grow. These trees are too small to produce logs that may be sold for conversion to wood products. Preliminary estimates of young stand thinning costs in Kitsap County park forests range from approximate $350-$750/acre depending on forest conditions. Cost-share projects with the Washington Department of Natural Resources may cover approximately 50% of the cost of implementation of some of these projects. Other funding sources, such as Real Estate Excise Tax, are being explored to help with the implementation of these projects to improve the forests on Kitsap County parks.

Program Funding Model

While the Forest Steward and Restoration Program was financially self-sustaining overall through the first 10 years (Figure 1), there are challenges maintaining financial self-sustainability going forward. Profitability was driven by strong logs markets during a few years when older stands, with high value large sawlogs and lesser amounts of low-value pulp logs, were thinned, combined with postponing needed pure-cost, young stand thinning and post-treatment forest inventory data

collection. This provided some large revenues while reducing stewardship and restoration costs. Staffing changes to the Forest Stewardship and Restoration Program in 2023-2024, post-COVID pandemic economic changes, and the deferred restoration needs, is likely to reduce thinning revenues and increase program costs during the next 10 years. This has created an environment wherein the Forest Stewardship and Restoration Program is not financially viable under the current funding model (See Appendix D for detailed analysis). Additionally, the Parks Advisory Board and community feedback have called for a change to the funding structure to disconnect staff salaries from the timber fund. For these reasons, the funding model for the natural resource program is changing in the following ways:

- **Dissolve Special Fund into General Fund:** Moving program expenses and staff salaries int the general fund will result in a long-term sustainable program cost structure. This would also bring a benefit of breaking the financial link between thinning and salaries, which may be viewed by some of the public as an incentive to prioritize revenues over restoration from forest stewardship and restoration activities. Any cost recovery revenue generated from the sale of timber product removed for ecological or restoration objectives will return to the general fund.
- **Utilize other revenue sources to cover program costs:** REET 2 and Park Impact Fees may be utilized to fund ecological assessments, forest inventory and cover restoration project costs.

Other Funding Sources

Potential outside funding sources to support the Forest Stewardship and Restoration Program activities include:

- **Grant funding:** Explore grant opportunities to bring in monies to help fund forest stewardship and restoration program activities. There may be grants available from State agencies (Department of Natural Resources, Department of Fish and Wildlife, Department of Ecology, Recreation and Conservation Office, etc.), Federal agencies (USDA Forest Service, Environmental Protection Agency, Department of Defense, US Fish and Wildlife Service, etc.), or private funding groups.
- **Carbon projects:** Explore developing a carbon project for Kitsap County Parks forests. Carbon projects monetize the carbon that is sequestered in the trees as they grow by selling carbon credits in a carbon market. This is becoming an increasingly common way that landowners can generate non-timber income from their lands. The Nisqually Community Forest developed a carbon project for a portion of their ownership[48]. Currently this project is generating approximately $100,000 annually from approximately 1,500 acres without changing their forest stewardship and restoration activities (Justin Hall, personal communication, September 12, 2024) allowing them to thin to benefit the forest and generate additional revenues.

[48] https://waconservationaction.org/first-forest-project-in-washington-state-to-meet-california-carbon-standards/, last accessed 1/31/20204

- **Cost-share programs:** Explore cost-share programs to reduce the County-paid cost of pure-cost stewardship and restoration activities, such as young stand thinning, forest inventory data collection, forest stewardship and restoration plan development, and/or other activities. Participating in cost-share programs would provide reimbursement for a portion of the treatment costs thereby reducing the overall cost of the Forest Stewardship and Restoration Program. However, these cost-share programs are often funded through the state or federal government, may be subject to political uncertainty, and should not be considered stable, consistent cost-reduction programs.

These potential opportunities are still in the ideation phase. Further research and exploration are needed to fully understand the impact of these opportunities on the Forest Stewardship and Restoration Program before any are pursued. This will be a focus during the next 2 years to help ensure long-term financial sustainability.

Conclusion

Ensuring the successful stewardship of and restoration of forests on Kitsap County focus parks requires a plan for expected actions and treatments to address stewardship and restoration needs. This Forest Stewardship and Restoration Strategic Plan implements the Forest Stewardship and Restoration Policy, proposing a suite of activities and actions for the coming 10 years that address treatment needs and continue to move forests in Kitsap County Parks towards desired conditions. This begins with assessments to describe and quantify current forest conditions. Over the coming 10 years, each focus park would be assessed, including forest and resource inventory data collection, to determine departures from desired conditions and support planning. Following assessments each park would have a park-specific forest stewardship and restoration plan updated or created that is tailored to the specific conditions within the park and is in alignment with the overarching policy and plan. Park forest stewardship and restoration plans would determine actions needed to address departures from desired conditions, prescribe and specify proposed treatments, and provide a treatment schedule for the 10-year lifespan of the plan. Expected effects of and outcomes from proposed treatments would be presented at three times scales – during implementation, 1-5 years post-treatment, and 6-30 years post treatment – to communicate what may be expected from the treatments and demonstrate how the treatments would move the forests in the park toward desired conditions.

Based on initial assessment using publicly available data and field observations, there are approximately 1,445 acres needing thinning treatments and approximately 655 acres in need of young stand thinning treatments over the next 10 years. These actions would address treatment needs, primarily decreasing the number of trees to provide the remaining trees adequate space to grow vigorously and increase resiliency to insects, disease, wildfire, and expected climate change. Following treatment these forests would be set up to develop toward desired conditions – the primary objective of stewardship and restoration thinning. In forests that require treatment actions with trees that would produce merchantable logs, thinning would generate revenues that would likely cover treatment costs and may produce additional revenues to fund additional restoration activities, program staff and operating costs. Necessary young stand thinning is unlikely to generate

revenue, with a potential cost of $300 – 750/acre. An additional cost to the program is forest inventory data collection to support assessment and planning at approximately $30/acre.

Through the first 10 years, the Forest Steward and Restoration Program was financially sustainable overall, though there are challenges through the next 10 years related to log markets and program costs. Revenues during the first 10 years fluctuated greatly as log markets and the types of forests that were thinned changed. Costs were also limited because investments in young stand thinning were not made. Looking forward through the next 10 years, it's difficult to be certain where the log markets will go – they may remain at the lower end of the range seen during the first 10 years or they may move to the upper end. Scenario analyses using a range of prices and a potential treatment schedule suggest that program costs, driven by salaries, may be a limiting factor. Moving staff over to a funding source other than recouped costs from timber product sales would help ensure the financial sustainability of the program. Additional funding sources, such as grants or carbon projects, which would pay for carbon sequestered in trees, may be explored to help fund the Forest Stewardship and Restoration Program. Together these would help meet the goals of Kitsap County Park; continued forest stewardship to improve forest health and resiliency, moving forests toward desired conditions, and creating forests that are refugia for wildlife and people in an increasingly urbanizing county.

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Appendix A – Past Stewardship and Restoration Activities

From 2014 to 2024 forest stewardship and restoration activities have thinned approximately 2,467[49] acres generating approximately $2,329,000 of revenue to the County (Table 7). These revenues, which are net of road maintenance, logging, and hauling costs, have been sufficient to support the costs of the Forestry Program, including the salary and benefits of the County Forester and seasonal help, seedlings for diversity plantings, and necessary materials and equipment. Some of these costs may have been reduced through volunteer assistance with data collection and planning to facilitate stewardship and restoration activities.

Road activities associated with stewardship and restoration activities along with one-off projects resulted in the construction, maintenance, and improvement of approximately 17.25 miles of road, abandonment of approximately 0.5 miles of road, removal or replacement/improvement of 6 water crossing structures, and the replacement or addition of 2 drainage structures (Table 8). Roads that were built, maintained, or improved for timber harvest provide opportunities for recreation, emergency services, and other access after stewardship and restoration activities are completed. Bringing roads to current standards minimizes their environmental impact. Water crossing structures on typed waters removed potential fish passage blockages thereby providing additional habitats for aquatic species. Drainage structures replaced or added help ensure that runoff from roads is directed away from streams to minimize sediment delivery to streams and aquatic species.

Overall costs of these projects is difficult to estimate because the costs appear to have been paid through multiple sources. Road work associated with stewardship and restoration activities was paid through the profession services agreements with American Forest Management. However, projects such as a bridge replacement at Newberry Hill Heritage Park, and possibly other projects, appear to have been funded by outside sources as they have not been found in available Forest Stewardship and Restoration Program accounting information.

[49] Differences exist between acreages reported in Forest Practices Applications and acres reported here as since there is no clear linkage between permitted area and area harvested in some years in available log sales reports.

Table 7: Harvest acreage, volume (thousand board feet, MBF) by park and year with annual totals and net revenues to county

Park		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Park Total
Newberry Hill	Acres	130						163					293
	Volume	681						1,454					2,135
Newberry Hill, North Kitsap	Acres		156										156
	Volume		1,062										1,062
Newberry Hill, Port Gamble	Acres			230									230
	Volume			1,326									1,326
Port Gamble, South Kitsap, Newberry Hill	Acres				385								385
	Volume				2,197								2,197
Coulter Creek	Acres					381	332	162					875
	Volume					1,786	1,832	352					3,970
Square Lake	Acres								109	37			146
	Volume								1,961	594			2,556
Wicks Lake	Acres									69			69
	Volume									605			605
Port Gamble	Acres										246	67	313
	Volume										1,325	514	1,839
Annual Total	Acres	130	156	230	385	381	332	325	109	106	246	67	2,467
	Volume	681	1,062	1,326	2,197	1,786	1,832	1,806	1,961	1,199	1,325	514	15,690
	Net Income	$ 29K	$ 113K	$ 129K	$ 329K	$ 374K	$ 190K	$ 48K	$ 683K	$ 412K	$ 45K	$ (24K)	$ 2,329K

Table 8: Results of road activities associated with stewardship and restoration thinning operations from 2014 - 2024

	Roads (miles)			Water Crossing & Drainage Structures (counts)		
Park	Constructed	Maintained/ Improved	Abandoned	Typed Water Removed	Typed Water Replaced/ Improved	Other Replaced/ Added
Coulter Creek	1.4	2.3	0.1	1	1	
Newberry Hill	1.9	3.6				
North Kitsap				1		
Port Gamble		6.8	0.4	1	2	1
South Kitsap	0.1	0.3				
Square Lake	0.2				1	1
Wicks Lake	0.8					
Total	4.4	12.9	0.5	3	4	2

Revenue from log sales over the first 11 years were highly variable and tightly coupled with log markets, fuel costs, and the types of trees being harvested (Figure 5). Thinning in older forests, which happened during high revenue years, produces a high proportion of higher-valued sawlogs while thinning in younger forests, which primarily happened in lower revenue years, produces a higher proportion of lower-valued pulp and firewood logs. High revenue years also coincided with high log prices, which further elevated revenues in high revenue years. Low prices for pulp and firewood logs likely reduced overall revenues - prices don't cover logging and hauling costs - but removal was necessary to meet restoration objectives.

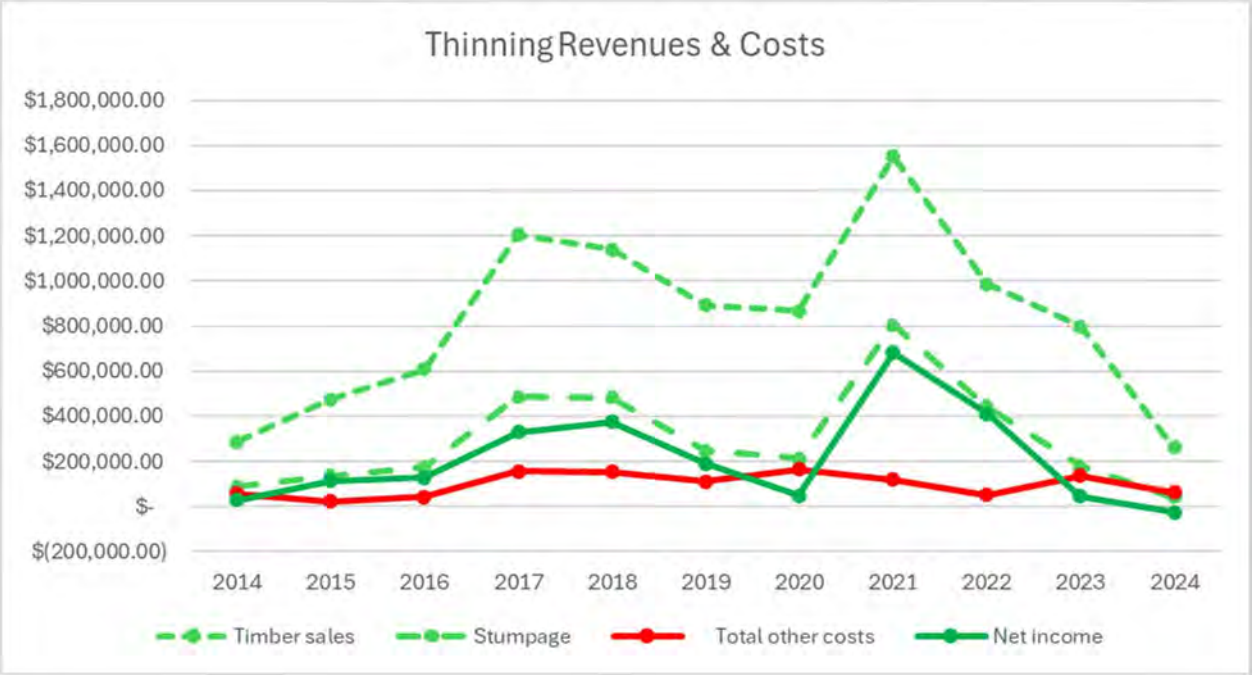

Figure 5: Revenues and costs for thinning operations in Kitsap County Parks from 2014 – 2024. Timber sales is gross revenue from log sales to mills. Stumpage is revenue less harvesting and hauling costs. Total other costs include services contract commissions, road maintenance, and other costs related to harvesting and hauling. Net income is log sales revenue less all costs.

Revenues from stewardship and restoration activities have been sufficient to cover staffing and other County expenses since 2017 (Figure 6). Revenues to the 1721 – KC Forest Stewardship Program budget have been highly variable, generally following net revenues from thinning activities (Figure 5) and surpassed total expenses in half of the last 10 years. Surpluses were often very large due to high log prices and the types of logs being sold resulting in accumulated surpluses in the budget, which have been available when revenues fall short of expenses in years when log prices are low.

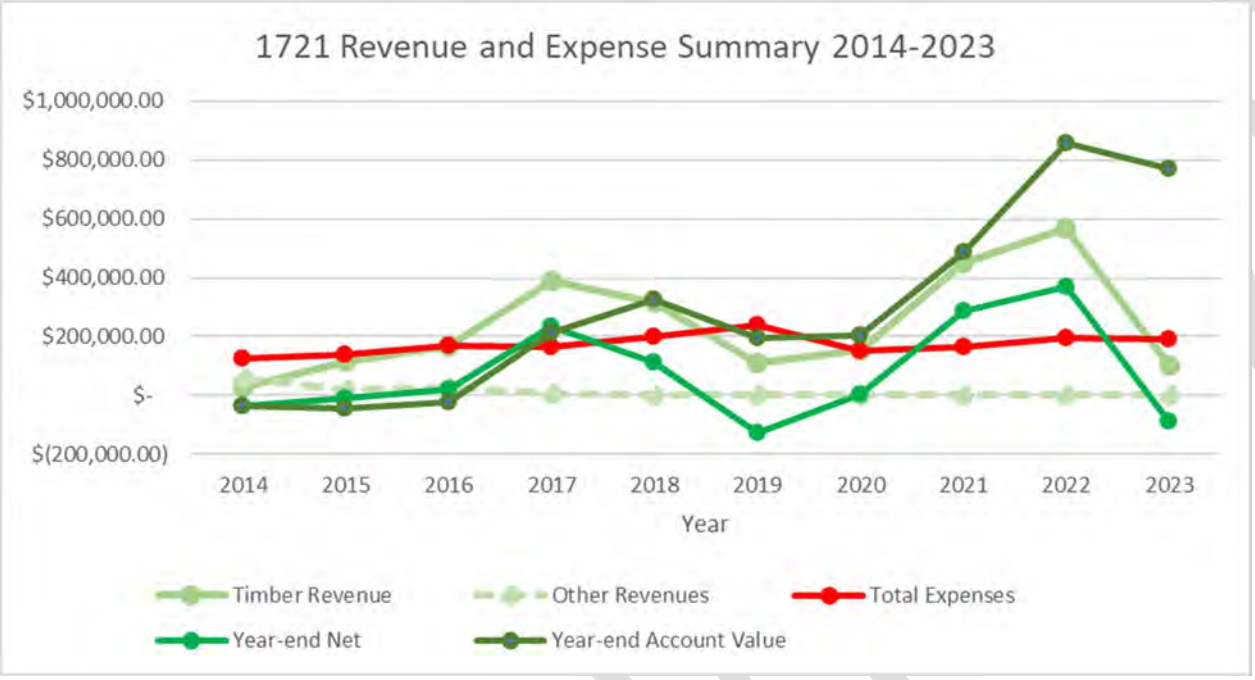

Figure 6: Forest Stewardship and Restoration Program (1721) annual revenues and total expenses and year-end account balance, 2014 – 2023. Timber revenue is net revenue (Figure 6) transferred to the county. Other revenues are grants and other funding. Total expenses include salaries, benefits, and other operational expenses. Year-end net is total revenues for the year less total costs. Year-end Account is the accumulated value of yearly year-end net values.

Volunteer Forest Stewards and other organizations, working in conjunction with Forest Stewardship and Restoration Program Staff, assessed forest conditions and created forest stewardship and restoration plans for 7 parks (Table 4). Assessments and planning were done to determine treatment needs in each of the parks and schedule when the treatments should be applied to meet restoration targets. These assessments and plans focused heavily on forest conditions with other resources playing smaller parts. Inventory data collected in the parks was collected prior to thinning with minimal monitoring data collection following thinning. While these plans provided general treatment prescriptions and treatment schedules, they were not always followed. For example, nearly all prescribed and scheduled treatments in North Kitsap Heritage Park have not been implemented as of 2025. Because post-treatment monitoring data was either not collected or is unavailable, it is unclear how well treatment prescriptions were followed where thinning occurred.

Appendix B - Focus Park Descriptions

Bandix Dog Park

Bandix Dog Park is a 30-acre park in southern Kitsap County with approximately 24 acres of forest ringing a central opening. This forest was regenerated following harvesting in the early 1900s followed by additional thinning along with other harvesting and clearing in the mid- to late-1900s. The forest ranges from moderately to densely stocked where trees are becoming stressed. This park sees much recreation in the off-leash dog park.

Banner Forest Heritage Park

Banner Forest Heritage Park is a densely forested 636-acre park located in southern Kitsap County that was acquired from the Washington Department of Natural Resources (WADNR) in 2000. Much of the forest on the park regenerated in the late 1800s and/or early 1900s following harvesting and/or fire. The WADNR managed this area to generate revenue for trust beneficiaries by harvesting and regenerating areas in the 1960s, 1970s, and 1980s. This disturbance and regeneration history has created a mix of forest conditions. Some areas were naturally regenerated (i.e., not planted) and now have large trees and multiple canopy layers that may not need restoration treatments. Other natural regenerated areas have uniform tree sizes and spacing and single canopy layer that would benefit from restoration treatments to open the canopy and allow the establishment of additional canopy layers. Areas harvested and regenerated (i.e., planted) prior to County acquisition are highly stocked with elevated competition between trees, slow growth rates, and low vigor. Douglas-fir beetle and western pine beetle are currently active in dense areas of Banner Forest causing Douglas-fir and western white pine mortality. The Great Peninsula Conservancy holds a conservation easement that covers approximately 139 acres in the center of the park. This park is heavily used for recreation with approximately 26 miles of trails.

Coulter Creek Heritage Park

Coulter Creek is a 1,549 acre park located in southern Kitsap County that was assembled through a series of acquisitions from various landowners including the Presbytery of Olympia in 1991 (formerly Camp Calvinwood), McCormick Land Company in 2000s, and the WADNR (formerly Square Lake State Park) in 1990s. Forests in much of Coulter Creek Park were regenerated following harvest and/or fire in the early- to mid-1900s. Much of Coulter Creek Park was then managed for Christmas tree and timber production prior to being acquired by the County. The park received forest stewardship and restoration treatments in 2017, 2019, 2021 and 2022 to address reduce stocking that was a legacy of past management. Much of the remaining untreated areas are reserve areas including wetland buffers, stream buffers, and inaccessible areas. Some additional highly stocked areas remain where treatments may be needed. Follow-up treatments may be needed in 15-25 years or as indicated by future monitoring data and assessments.

Eglon Forest

Eglon Forest is 707-acres park located in northern Kitsap County that was acquired from the WADNR in 2025. Much of this park was regenerated through planting following regeneration harvesting in 1970s, 1980s, 1990s with some follow-up thinning around 2010. The resulting forest is a mix of conditions ranging from pure conifer forests (primarily Douglas-fir) to pure hardwood forests (primarily red alder and bigleaf maple) with areas where both types are mixed. Forest in conifer-dominated areas are becoming dense with competition causing decreases in tree growth in vigor. This park sees some recreation use on approximately 6 miles of trail, primarily on old roadbeds used for past timber harvesting.

Gordon Park

Gordon Park is an approximately 54-acre park located in central Kitsap County with approximately 46 acres of forests. These forests were regenerated following logging and/or fire in the early- to mid-1900s and are currently well stocked. However, the dominant trees are becoming large resulting in small trees having heavy competition that has slowed growth and pushed these trees toward mortality. There are also areas of disease mortality that are creating open areas and large snags. This park sees extensive recreation on trails, disc golf course and developed campgrounds.

Hansville Greenway

Hansville Greenway is a 283-acre park located near Hansville in northern Kitsap County. Approximately 140 acres of the park were originally acquired in 1995 with the remaining area acquired at various times since then. Forests in this park regenerated following harvesting in the early 1900s resulting conditions that are densely stocked with compositions ranging from pure conifer to mixes of conifer and hardwood to pure hardwood. Currently the park is managed in conjunction with the Hansville Greenway Association under a management plan approved in 2013, which precludes forest management. Nearly 30 years have passed since the last comprehensive assessment of this park. This park sees extensive recreation on 7 miles of trails within the park and an additional 2.5 miles of trail on surrounding easements.

Illahee Preserve Heritage Park

The Illahee Preserve Heritage Park is a 468-acre park located in the East Bremerton area of central Kitsap County. Most of this park was transferred from the WADNR in 2001 with additional areas purchased from private individuals in subsequent years. Much of this park was harvested in the early 1900s. The current forests are a mix of pre-harvesting remnants and areas that regenerated following the harvesting. A management plan was created by Illahee Forest Stewardship Committee in 2003. Currently there is an extensive mountain pine beetle outbreak that is impacting many of the western white pine in the park, which have been weakened by competition with other trees. While this is producing standing dead trees (snags), which are important habitat elements, the white pine may be lost from the park in the coming years due to the outbreak. Illahee Creek bisects the park and provides spawning habitat for salmon. This park sees extensive recreation on approximately 5 miles of trails.

Newberry Hill Heritage Park

Newberry Hill Heritage Park is a 1,083-acre park located in central Kitsap County that was acquired from Port Blakely Tree Farms and the WADNR in 2004 and 2009-10, respectively. Forests in this park were generally planted following harvesting in 1980s and1990s. This park received extensive forest stewardship and restoration treatments in 2014, 2016, 2017, and 2020. Remaining untreated areas are a mix of dense upland areas along with wetland and stream buffer reserves. Untreated upland areas are highly stocked with elevated competition between trees, slow growth rates, and decreased vigor. This park has extensive recreation on approximately 17 miles of trails and access roads.

North Kitsap Heritage Park

North Kitsap Heritage Park is a densely forested 818-acre park located in northeast Kitsap County that was acquired from Pope Resources (now Rayonier) in 2005 and 2014. Forests in the park regenerated through planting following clearcutting in the 1980s and 1990s. Planted forests were intended for future timber production and are now very dense with high levels of competition, slow growth rates, lack species diversity, and sparse to non-existent understory vegetation. Forest stewardship and restoration activities have occurred in small areas within the park leaving much of the park highly stocked with elevated competition between trees, slow growth rates, and low vigor. This park sees extensive recreation use on approximately 13 miles of trails, primarily on roadbeds previously used for timber harvesting.

Port Gamble Forest Heritage Park

Port Gamble Forest Heritage Park, located in northern Kitsap County, was acquired from Pope Resources (now Rayonier) as three separate blocks – Shoreline, Gamble Forest, and Gamble Forest West – in 2014, 2016 and 2017, respectively, covering approximately 3,774 acres. Forests within the park are densely stocked resulting from clearcutting and planting from 1980s-2000s. These forests were intended for future timber management. Rayonier currently holds timber deeds on approximately 1,270 acres of the Gamble Forest and Gamble Forest West blocks allowing harvesting these areas until 2042. These areas will be released to the County as recently planed open forests soon after harvesting. The remaining areas are wholly owned by Kitsap County, including approximately 750 acres where timber rights were purchased in 2022 with the assistance of Our Forest Fund and Forterra. Much of the County-owned areas received forest stewardship and restoration treatments in 2016, 2023 and 2024. Remaining untreated areas are a mix of 15–40-year-old forests that are highly stocked that have, or will soon have, high levels of competition, reduced growth, and decreased vigor. A portion of this untreated area will be treated in 2025. Additional areas may be treated in the future following assessments and planning. This park has extensive recreation on 70 miles of trails, access roads, and a developed mountain bike park.

Rude Road Site

The Rude Road site is a 203-acre park located in central Kitsap County. Much of the park was acquired from the WADNR in 2017 with additional area acquired as a tax title purchase. Much of the area acquired from the WADNR were regenerated following harvesting between 2000 and 2010. The

remaining areas were regenerated in the early 1900s following harvesting, part of this area is currently inaccessible. Forest stewardship and restoration treatments will be needed in the in areas that were harvested since 2000 to ensure the development of healthy forests on this site. There is no developed recreation at this site.

South Kitsap Regional Park

South Kitsap Regional Park is a 200-acre park located in south Kitsap County near Port Orchard. Approximately 175 acres of this park is forested with the remaining area developed for recreation. Forests in this park regenerated following harvesting in the late 1800s – early 1900s. Currently the forests are dominated by large Douglas-fir trees with areas of hardwoods in lower-lying, wetter areas. Much of the forest received forest stewardship and restoration treatments in 2017 to address competition and root-rot issues. This park sees extensive recreational use on baseball diamonds and other sports fields, developed recreation areas, approximately 7 miles of trails, and a miniature steam railroad.

Wicks Lake Park

Wicks Lake Park is a 156-acre park in southern Kitsap County that was acquired from McCormick Land Company and Alpine Evergreen in 2001, 2005 and 2007. These forests regenerated following fire and/or harvesting in the early 1900s and were managed as commercial timberland prior to becoming a County park. In some areas, regeneration harvesting and planting occurred in the late 1900s and commercial thinning in the 1990s. Sixty-nine acres of forest stewardship and restoration treatments occurred in 2022. Remaining untreated areas have not needed treatment, are in buffers along riparian areas, including Wicks Lake, and wetlands, or have limited accessibility. This park is relatively remote and sees light recreation use on trails and in Wicks Lake, which is one of the last undeveloped lakes in Kitsap County.

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Appendix C – Preliminary Park Treatment Needs

Figure 7: Preliminary stewardship and restoration treatment needs by treatment type for Bandix Dog Park

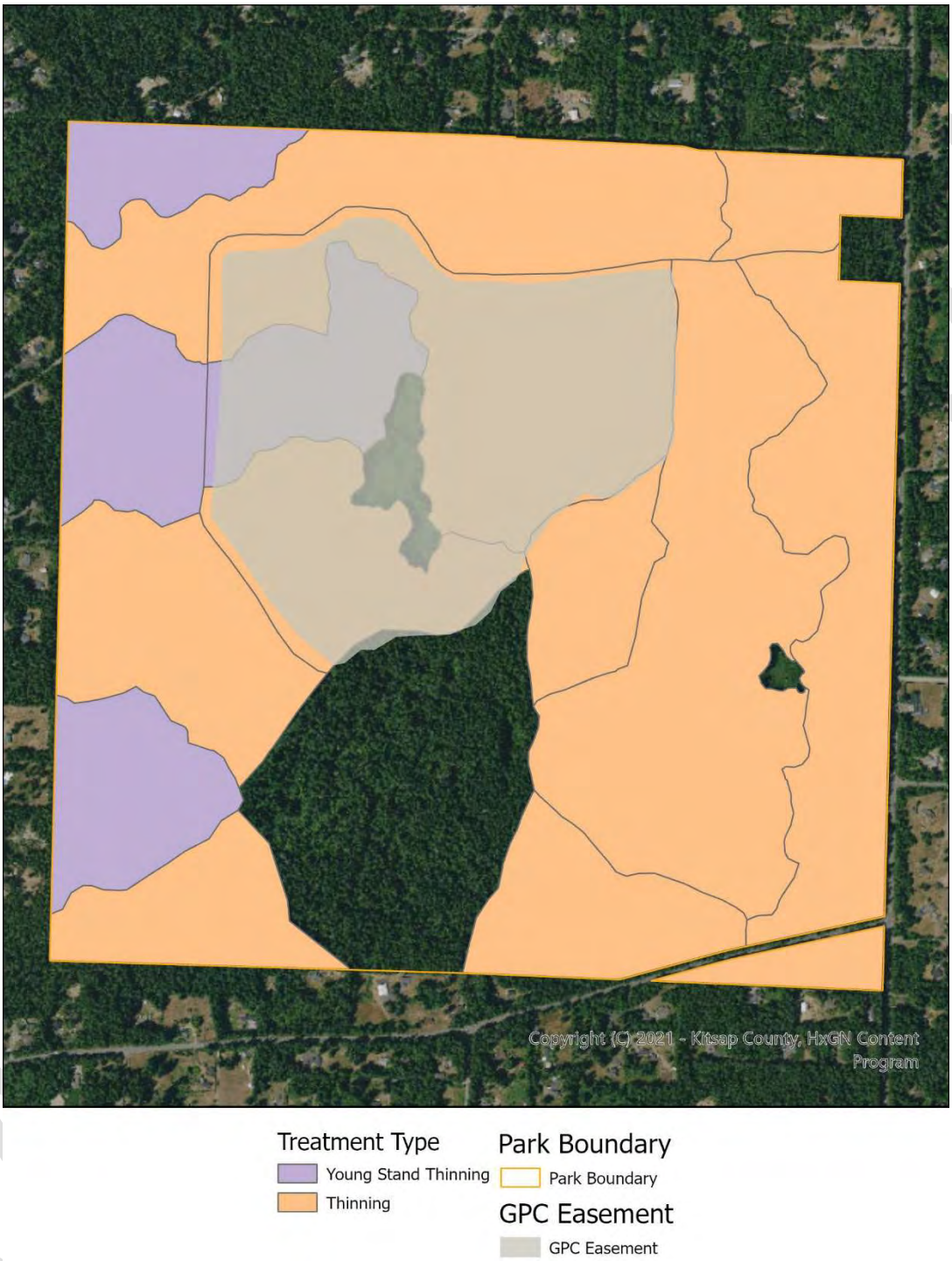

Figure 8: Preliminary stewardship and restoration treatment needs by treatment type for Banner Forest Heritage Park. Treatments in the GPC conservation easement would require easement modifications and updates.

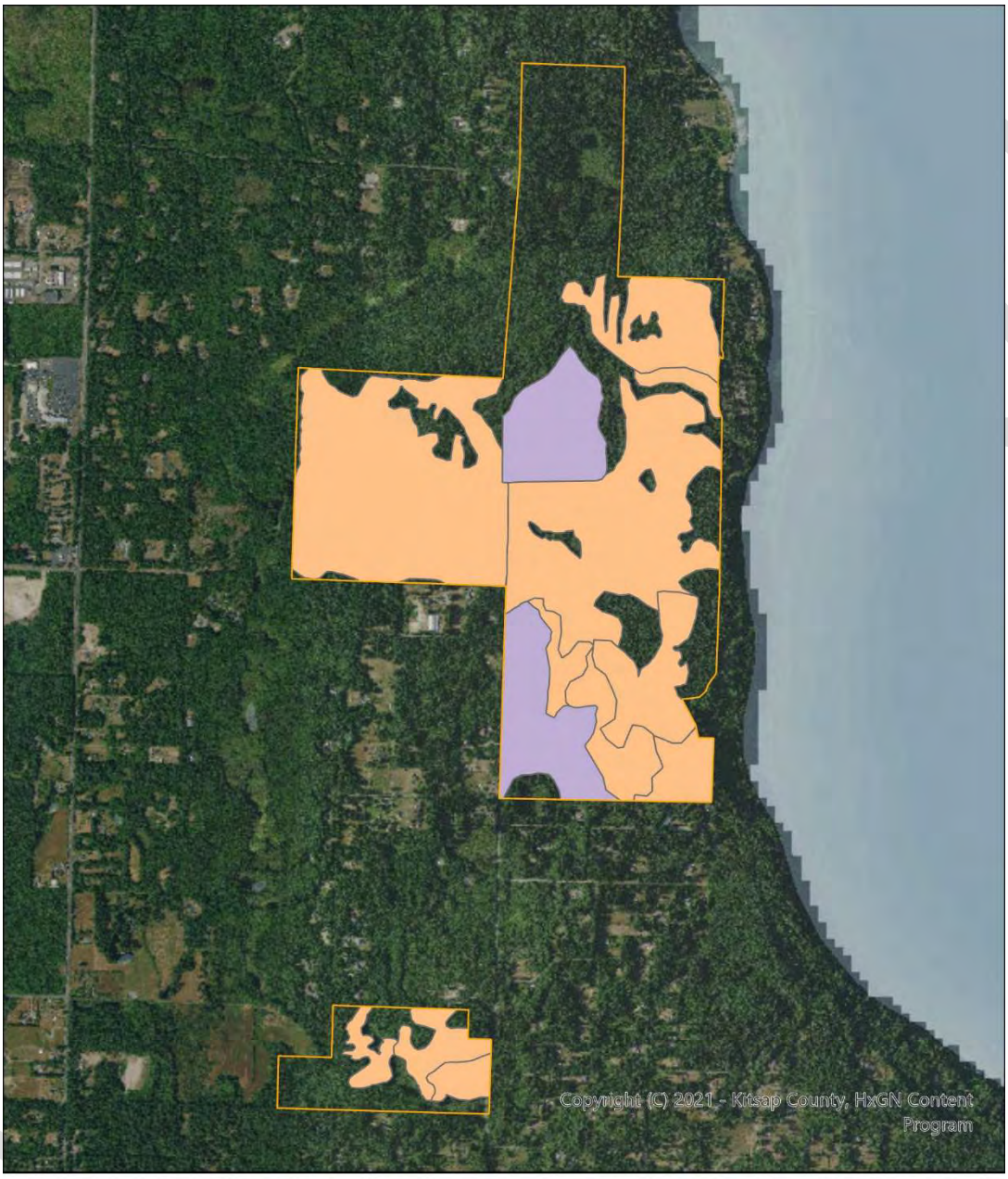

Figure 9: Preliminary stewardship and restoration treatment needs by treatment type for Eglon Forest

Figure 10: Preliminary stewardship and restoration treatment needs by treatment type for Gordon Heritage Park

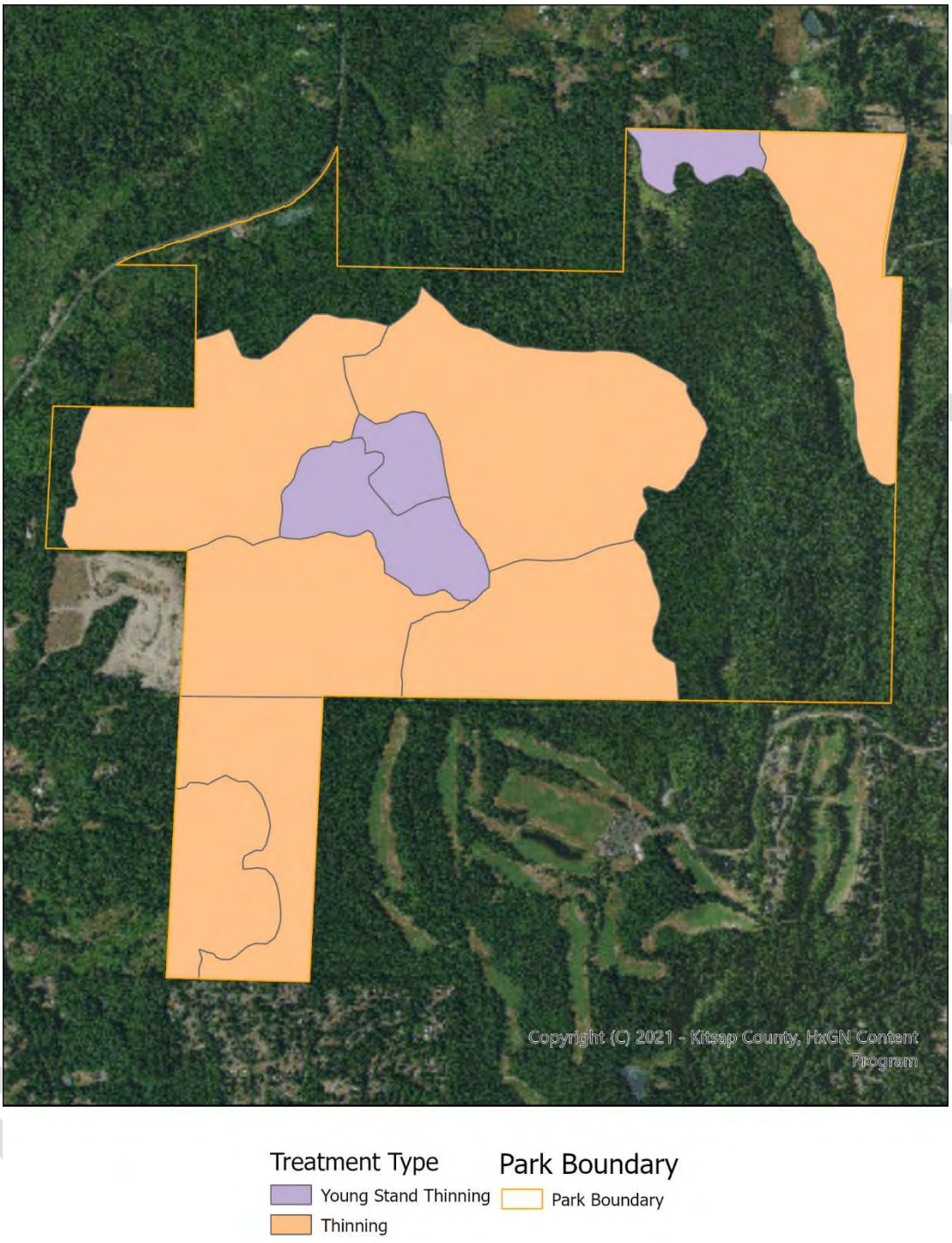

Figure 11: Preliminary stewardship and restoration treatment needs by treatment type for North Kitsap Heritage Park

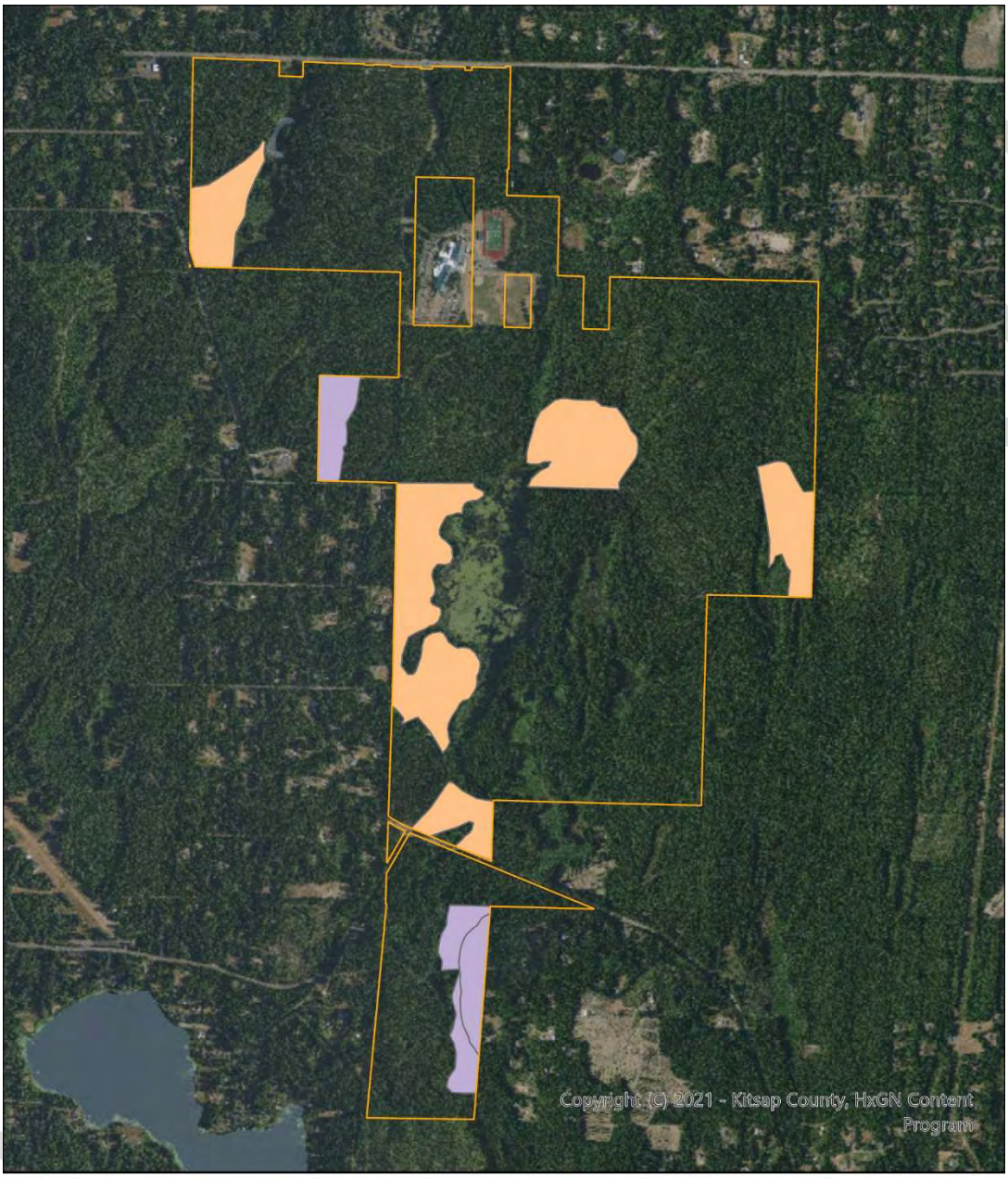

Figure 12: Preliminary stewardship and restoration treatment needs by treatment type for Newberry Hill Heritage Park

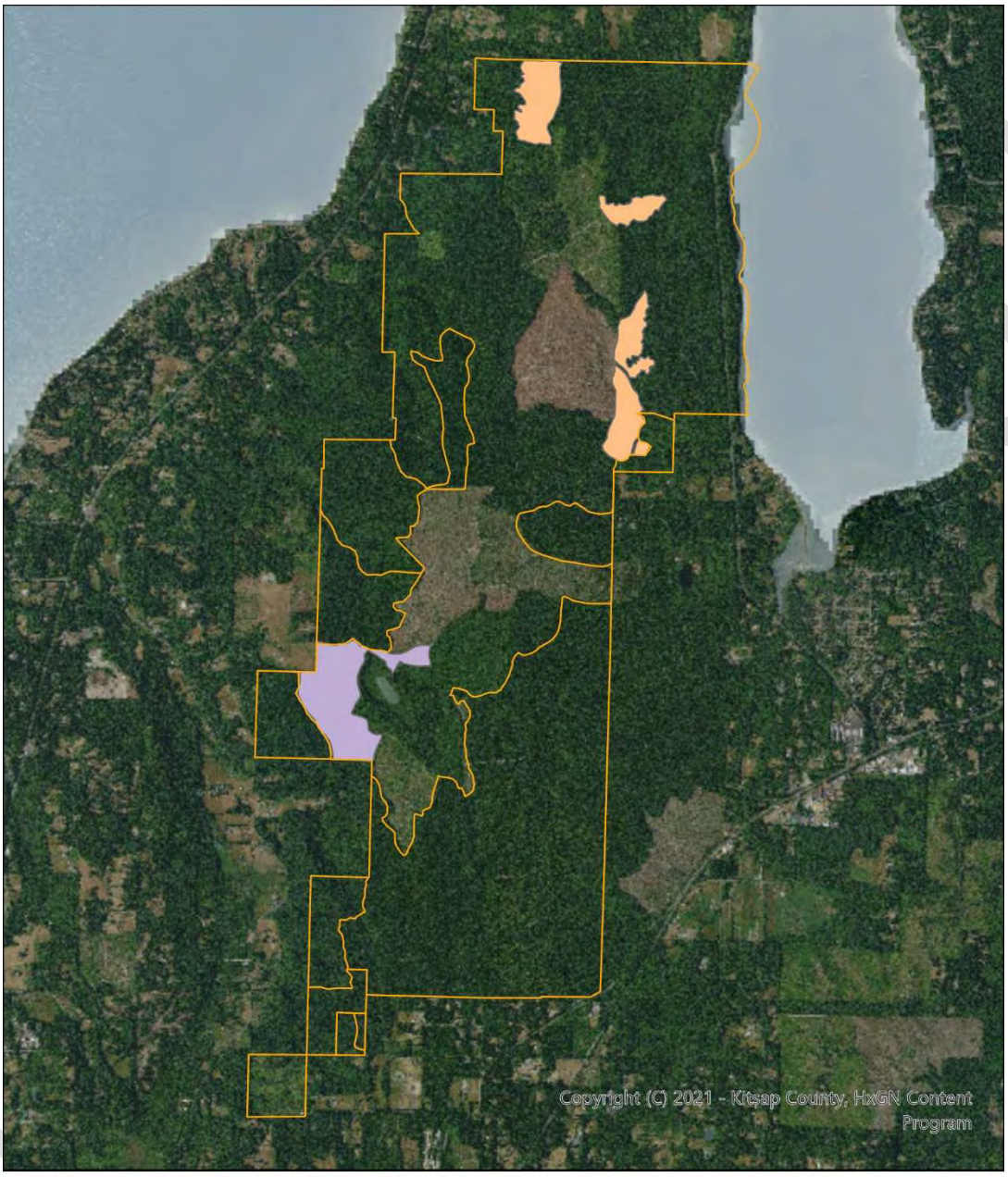

Figure 13: Preliminary stewardship and restoration treatment needs by treatment type for Port Gamble Forest Heritage Park

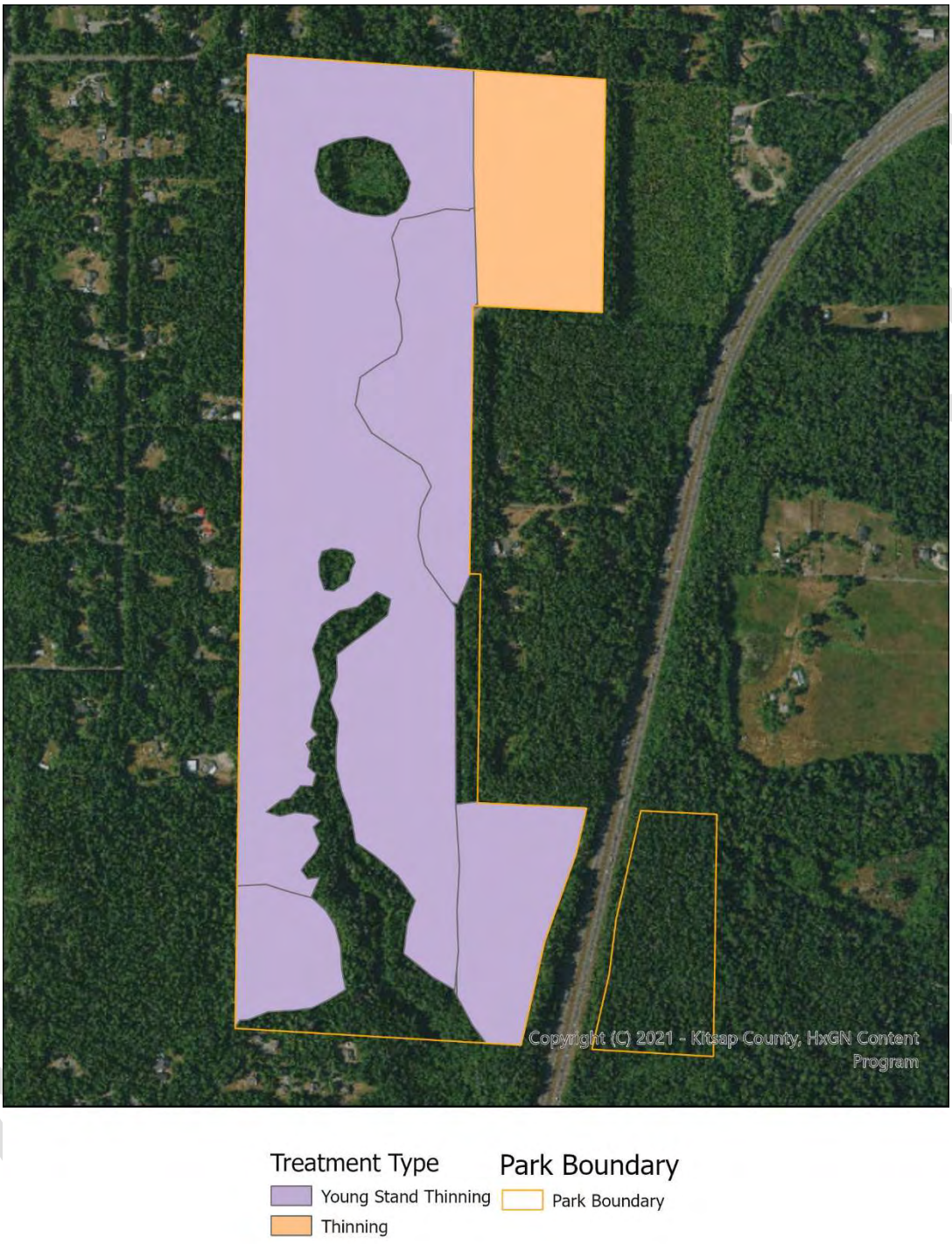

Figure 14: Preliminary stewardship and restoration treatment needs by treatment type for the Rude Road Site

Appendix D – Financial Sustainability Analysis

In earlier iterations of this document, it was assumed that this program would continue to be self-funding. Below is the analysis that helped guide the decision to dissolve the special forest fund and bring this program into the general fund.

Introduction

While the Forest Steward and Restoration Program was profitable overall through the first 10 years (Figure 1), there may be challenges maintaining financial sustainability going forward. Profitability was driven by strong logs markets during a few years when older stands, with high value large sawlogs and lesser amounts of low-value pulp logs, were thinned combined with postponing needed pure-cost, young stand thinning and post-treatment forest inventory data collection. This provided some large revenues while reducing stewardship and restoration costs. Staffing changes to the Forest Stewardship and Restoration Program in 2023-2024, post-COVID pandemic economic changes, and the deferred restoration needs is likely to reduce thinning revenues and increase program costs during the next 10 years. Reduced revenues and increased costs may result in net losses from stewardship and restoration program activities that would deplete account reserves over time making the Forest Stewardship and Restoration Program not financially viable under the current business model. However, there may be ways to restructure program costs and revenues to help ensure that the program remains financially sustainable.

Three-year Estimates

Foreseeable forest stewardship and restoration projects during 2025-2027, including thinning, forest inventory, permitting, and young stand thinning may result in net positive returns to the Parks Department prior to accounting for salaries and other costs/overhead (). Preliminary estimates of net forest product revenue[50] net of treatment, transportation, road system, and professional services agreement commission costs that are comparable to past revenues with comparable log prices – 2014-2016, 2019-20220, and 2023. During these years revenues did not meet program past costs (Figure 1), which did not include investments in forest inventory data collection and young stand thinning. These revenues would not cover the current 2-salary load on the budget and would result in budget reserves being depleted in 2026 or 2027, even without needed investments in forest inventory and young stand thinning. Making needed investments in forest inventory data collection and young stand thinning would produce high-quality data and healthy young forests but would deplete budget reserves even faster.

Table 9: Estimated revenues and costs for forest stewardship and restoration activities for 2025-2027 before paying salaries and other operating costs.

Revenue/cost	2025	2026	2027	Total
Thinning net	$96,000	$ 198,000	$ 170,000	$378,000

[50] Preliminary revenue estimates are based on modeling results with publicly-available data. These data are generally representative of current forest conditions, but results may not accurately represent revenues.

Permitting	$ (450)	$ (300)	$ (300)	$(1,050)
Inventory	$ (14,000)	$ (14,300)	$ (14,300)	$(42,600)
Young Stand Thinning[51]		$ (58,200)[52]	$ (61,300)	$ (119,500)
Remaining	$81,550	$125,200	$94,100	$300,850

Ten-year Scenario Analysis

Long-term financial sustainability of the Forest Stewardship and Restoration Program depends on the program's cost structure, which the County controls, and log prices, which are subject to local, national, and global market pressures (). Financial sustainability was assessed using a multiple revenue and cost scenarios. Revenue scenarios vary sawlog[53] prices that cover the range of realized log prices during the past 10 years and reflect current markets – from $70/ton to $120/ton. Pulp log[54] prices were held constant at $27/ton to reflect expectations of low pulp prices going forward because western Washington has few pulp mills that are primarily fed with sawmill residuals leaving little market for pulp logs. Harvest volumes used for revenue calculation are modeled using Washington Department of Natural Resources and USDA Forest Service data "grown" with USDA Forest Service models. Cost scenarios assume different levels of salary support – 2, 1, and no salaries – in addition to program operating costs along with needed investments in forest inventory data collection ($15/ac), which supports assessments, planning, and treatments, and young stand thinning ($500/ac), which ensures that trees planted by prior landowners have the room needed to grow and remain healthy.

Results of the scenario analysis suggest that the Forest Stewardship and Restoration would be financially sustainable, as currently funded, only under certain circumstances with a dependence on both log prices and salary support levels. Higher program costs, which are primarily driven by salaries, would necessitate higher revenues to support these higher costs. Revenues may be increased through higher log prices and/or increasing amount of area that is treated. Logs are a commodity and the log market is generally a buyers' market – if you want to sell logs you must accept the buyer's price. If higher prices are needed to meet costs, sellers are not able to demand these prices so they must find other ways to balance costs and revenues. Increasing the amount of area treated would incrementally increase revenues by increasing the total volume of logs sold. However, this would result in log sales volumes exceeding the 2 million board-foot harvest limit set by the Washington Department of Natural Resources for designation as a small forest landowner. Losing the small forest landowner designation would greatly increase operational costs for the Forests Stewardship and Restoration Program. Scenario analyses highlight where the balances between revenues under varying log prices and cost under different levels of salary support.

[51] Costs are the midpoint of the range in .
[52] See footnote 20
[53] Sawlogs are logs with an inside-bark small-end diameter of at least 5 inches.
[54] Pulp logs are logs with an inside-bar small-end diameter of less than 5 inches.

Scenarios Funding 2 Salaries

Supporting both the Stewardship Forester and Natural Resources Supervisor (, red dashed line) would require sustained sawlog prices of at least $110/ton. This price level was seen only during 2021 and 2022, which coincided with unique market conditions including lumber price spikes associated with COVID-pandemic log and lumber shortages, historically low interest rates, and high levels of housing starts. During these high revenue years, Kitsap County Parks was thinning in older stands that appear to have had a significant proportion of larger, high-value 2 Saw logs which resulted in overall higher log prices[55]. These price levels are high relative to historical prices so may be unlikely moving forward. Additionally, much of the forests that will need forest stewardship and restoration treatments in the coming years have smaller diameter trees that will have lower-valued logs resulting in lower overall log prices and revenues. This scenario would not be able to sustain the Forest Stewardship and Restoration Program as currently funded. With current sawlog prices of approximately $80/ton the Forest Stewardship and Restoration Program budget would likely be depleted in 2026 after needed investments in young stand thinning and forest inventory.

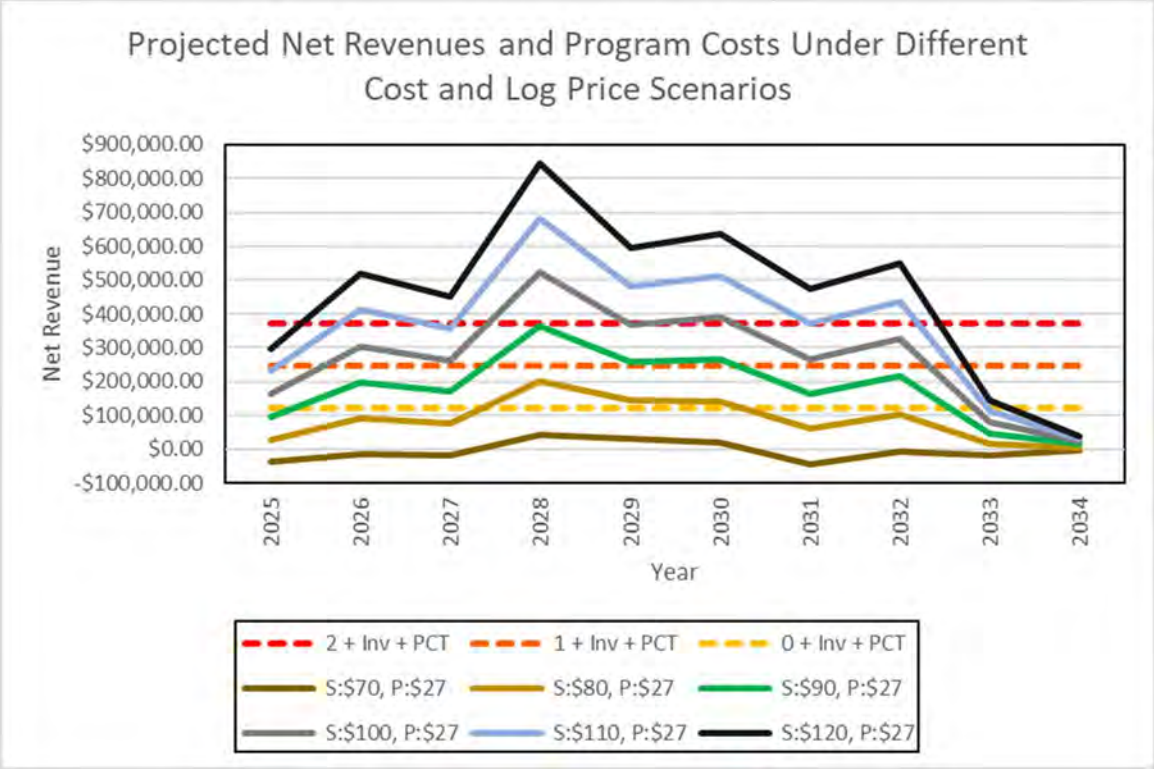

Figure 15: Projected Forest Stewardship Program revenues and costs under different log price and cost scenarios. Cost scenarios include 2 salaries (Stewardship Forester and Natural Resources Supervisor) plus operating, forest inventory (Inv) and young stand thinning (PCT) costs (red dashed line), 1 salary (Stewardship Forester) plus operating, forest inventory (Inv) and young stand thinning (PCT) costs (orange dashed line), and no salaries, only operating, forest inventory (Inv) and young stand thinning (PCT) costs (yellow dashed line). Log price scenarios (solid lines) vary sawlog prices from

[55] Sawlogs from thinning on Kitsap County parks are primarily purchased by Manke Lumber of Tacoma, WA with a "camp run" price. This price is implicitly reflective of the expected log size distributions in the stands being harvested.

$70/ton (S:$70) to $120/ton (S:$120) to represent a range of potential prices based on what has been realized. Pulp prices are held constant recognizing the poor pulp market conditions with few pulp mills in western Washington.

Scenarios Funding One Salary

Supporting only one salary, i.e. the Stewardship Forester, (Figure 15, orange dashed line) would require consistent sawlog prices of approximately $100/ton. This level was seen only in 2017, 2018, and 2023 when it appears that the log mix had a significant amount of 3 Saw logs from stewardship and restoration projects in stands with lager trees. These prices are also relatively high relative to historical prices so may not be likely in the future. Like the scenario above, this one is unlikely to sustain the Forest Stewardship and Restoration Program. With current sawlog prices of approximately $80/ton the Forest Stewardship and Restoration Program budget would likely be depleted in 2027 after needed investments in young stand thinning and forest inventory.

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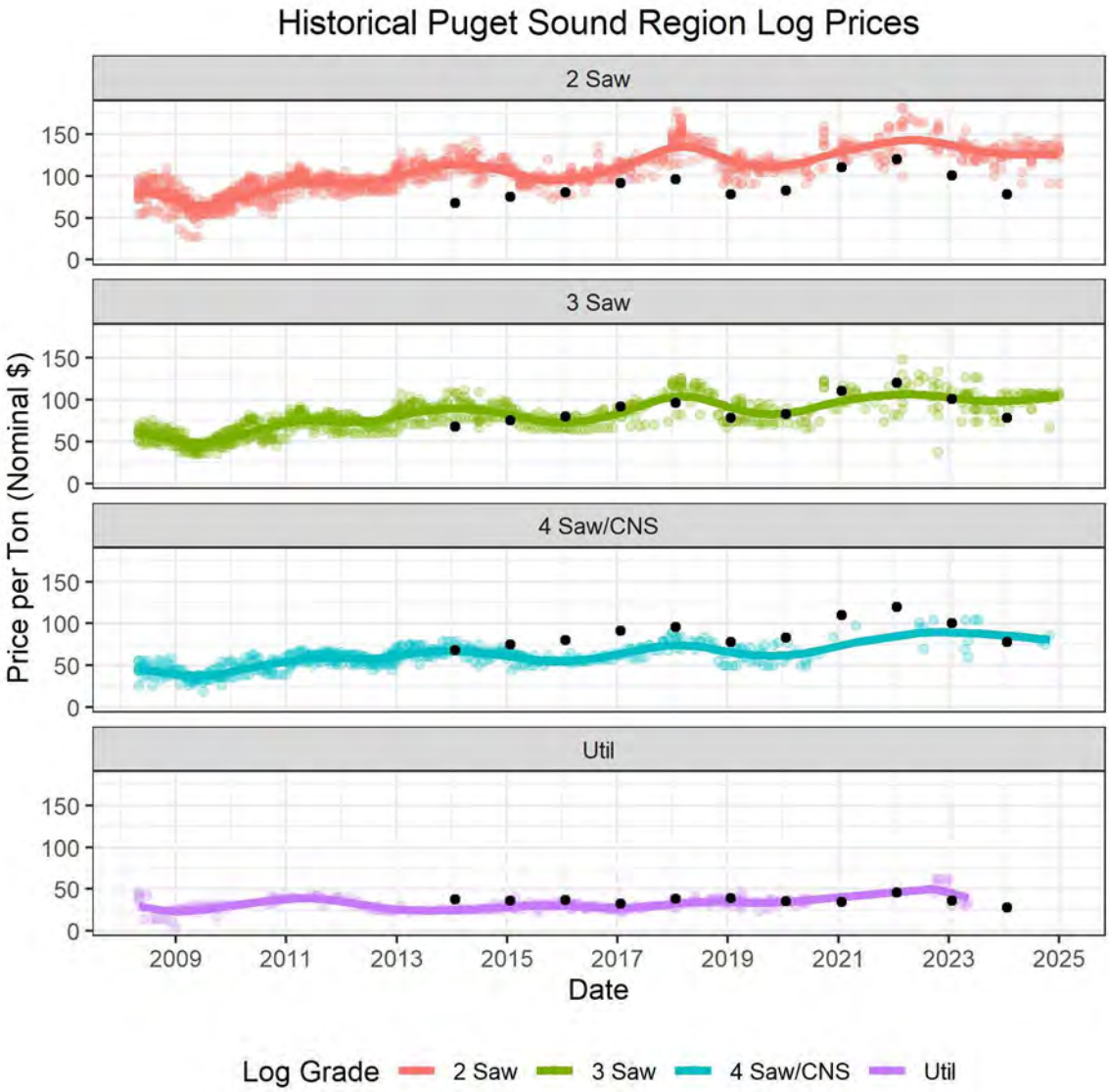

Figure 16: Historical log prices for the Puget Sound region. Points are reported prices. Lines are running average values. 2 Saw logs have a small end diameter of 12" and larger. 3 Saw logs have a small end diameter of 8 – 11 inches. 4 sa4/CNS have a small end diameter of 5-7 inches. Util are logs with a small end diameter of less than 5 inches or excessive defect to use for sawlogs. Black point are actual log prices for sawlogs (2 Saw, 3 Saw, 4 Saw/CNS) or pulp (Util). Price data provided by the Washington Department of Natural Resources.

Scenarios Funding No Salaries

Supporting no salaries, only operating costs and the costs of stewardship and restoration projects, (Figure 15, yellow dashed line) would likely be the most sustainable operating scenario for the Forest Stewardship and Restoration Program. At the current log price of approximately $80/ton thinning would likely generate sufficient revenue to cover non-salary costs along with the needed investments in young stand thinning and forest inventory. There may also be sufficient revenue to support additional restoration projects, such as invasive species removal, and seasonal staff or interns to support restoration projects.

Potential business model changes

Ensuring the long-term financial sustainability of the Forest Stewardship and Restoration Program will likely require changes to the current business model to reduce costs and/or increase revenues, which may include sources that are not tied to forest products sales. Potential opportunities include:

Cost reductions

Potential changes to reduce program costs include:

- **Salary changes:** Move the Natural Resources Supervisor and/or Stewardship Forester salaries off the Forest Stewardship and Restoration budget. Moving one salary to another source would reduce account reserve burn rates and extend the amount of time until the reserves may be depleted. Moving both salaries to another source would likely result in a long-term sustainable program cost structure. This would also bring a benefit of breaking the financial link between thinning and salaries, which may be viewed by some of the public as an incentive to prioritize revenues over restoration from forest stewardship and restoration activities.
- **Bring professional services contract in-house:** The professional services contract with American Forest Management (AFM) currently costs 5.7% of gross log sales receipts, which is expected to be approximately $100,000 over the 2 years remaining in the contract. Services provided under this contract include log marketing, load tracking, contracting loggers and other service providers, and assisting with thinning unit layout. It is unclear if these services are worth the cost. Performing these activities, which cost the equivalent of 0.5 FTE, with County staff may result in reduced costs to the Forest Stewardship Program. However, additional staffing, e.g. seasonal help and/or interns, may be needed to preform some of these tasks.
- **Cost-share programs:** Explore cost-share programs to reduce the County-paid cost of pure-cost stewardship and restoration activities, such as young stand thinning, forest inventory data collection, forest stewardship and restoration plan development, and/or other activities. Participating in cost-share programs would provide reimbursement for a portion of the treatment costs thereby reducing the overall cost to the Forest Stewardship and Restoration Program. This would free up revenue to cover salaries and/or other costs. However, these cost-share programs are often funded through the state or federal government, may be subject to political whims, and should not be considered stable, consistent cost-reduction programs.
- **Volunteers:** Explore the use of volunteers to help with stewardship and restoration activities where appropriate. Using volunteers to help perform stewardship and restoration activities may reduce the cost of investments in data collection and other activities. However, additional staffing would be needed to recruit, train, and manage these volunteer programs. These additional staffing costs may outweigh any cost reductions from using volunteers rather than contractors for activities such as plot inventory or project implementation at the scale that is needed. Volunteer programs have many benefits beyond cost savings including fostering a sense of pride and ownership for the parks and educating

the community about how natural resource management benefits ecosystems. Creating community engagement opportunities for habitat enhancement projects will be prioritized with the hopes of expanding into other opportunities if staff capacity increases.

Revenue Sources

Potential outside revenue sources to support the Forest Stewardship and Restoration Program activities include:

- **Grant funding:** Explore grant opportunities to bring in monies to help fund forest stewardship and restoration program activities. There may be grants available from State agencies (Department of Natural Resources, Department of Fish and Wildlife, Department of Ecology, Recreation and Conservation Office, etc.), Federal agencies (USDA Forest Service, Environmental Protection Agency, Department of Defense, US Fish and Wildlife Service, etc.), or private funding groups.
- **Carbon projects:** Explore developing a carbon project for Kitsap County Parks forests. Carbon projects monetize the carbon that is sequestered in the trees as they grow by selling carbon credits in a carbon market. This is becoming an increasingly common way that landowners can generate non-timber income from their lands. The Nisqually Community Forest developed a carbon project for a portion of their ownership[56]. Currently this project is generating approximately $100,000 annually from approximately 1,500 acres without changing their forest stewardship and restoration activities (Justin Hall, personal communication, September 12, 2024) allowing them to thin to benefit the forest and generate additional revenues.

All these potential opportunities are still in the ideation phase. Further research and exploration are needed to fully understand the impact of these opportunities on the Forest Stewardship and Restoration Program before any are pursued. This will be a focus during the next 2 years to help ensure long-term financial sustainability.

[56] https://waconservationaction.org/first-forest-project-in-washington-state-to-meet-california-carbon-standards/, last accessed 1/31/20204

Financial Scenario Assumptions

Financial scenario analyses are based on a combination of publicly available forest inventory data and actual past log prices, harvest costs, and Forest Stewardship Program expenses. The results of these analyses show a range of what may be expected expenses and incomes to the County from forest stewardship and restoration treatments over the coming decade.

Analysis areas

Areas selected for the financial scenario analysis are parks with areas that have not received restoration thinning in the past but where treatment appears to be needed to address departures from desired conditions, climate resiliency, and forest health concerns. These parks include the Banner Forest Heritage Park, Bandix Dog Park, Eglon Forest, North Kitsap Heritage Park, Port Gamble Forest Heritage Park, Gordon Park, and Newberry Hill Heritage Park. Illahee Preserve and Hansville Greenway were excluded from this analysis because of their de facto "preserve" status even though there may be stewardship and restoration treatment needs.

Forest inventory data sources

Forest inventory for the analysis areas are a combination of the Washington Department of Natural Resources RS FRIS (remotely sensed forest resource inventory system) and the USDA Forest Service FIA (forest inventory and analysis) data. RS FRIS data provide inventory summary data including numbers of trees per acre, basal area per acre, mean heights, competition metrics, tree volumes, etc., for all forested areas of Washington State, including Kitsap County. These data layers were summarized within each potential treatment unit in each analysis area to give typical conditions across the unit that are representative 2019 and 2020.

A modeling database was created using data from the USDA Forest Service Forest Inventory and Analysis (FIA) database to support forecasting future forest conditions using USDA Forest Service Forest Vegetation Simulator (FVS) forest growth model. FIA plot data from lower elevation (<1,500') areas in Kitsap, Thurston, eastern Mason, and eastern Jefferson counties were selected to represent analysis unit conditions data as closely as possible. These data were "grown" using FVS to provide representative forest conditions in each year from 2025 – 2034 to provide potential stewardship and restoration treatment harvest volumes and tree sizes for the scenario analysis.

Operable areas

Operable areas within analysis unit were determined by removing areas that may be in regulatory riparian management zones (RMZs) or wetland management zones (WMZs), are excessively steep (>35% slope), or are inaccessible. Stewardship and restoration and would likely happen only within operable areas within a unit, rather than the entire unit. Estimating these areas using the best available data gives a more accurate view of what potential harvest volumes for each scenario.

Treatment removals

Past restoration treatments removed approximately 40% of the pre-harvest conifer volume within treatment areas. This percentage is used in financial scenario analyses.

Log size class percentages

Sawlog and pulp log percentages in past restoration treatments were related average tree diameters, specifically quadratic mean diameter (QMD), of the unit before harvesting (Figure 17). Generally, the smaller the average diameter of a unit is, the higher the percentage of pulp logs in the overall harvest volume. Likewise, when the unit contains larger trees, on average, the lower the percentage of pulp logs in the overall harvest volume. This function is used to predict the expected percentages of sawlog and pulp volumes when calculating potential thinning revenues.

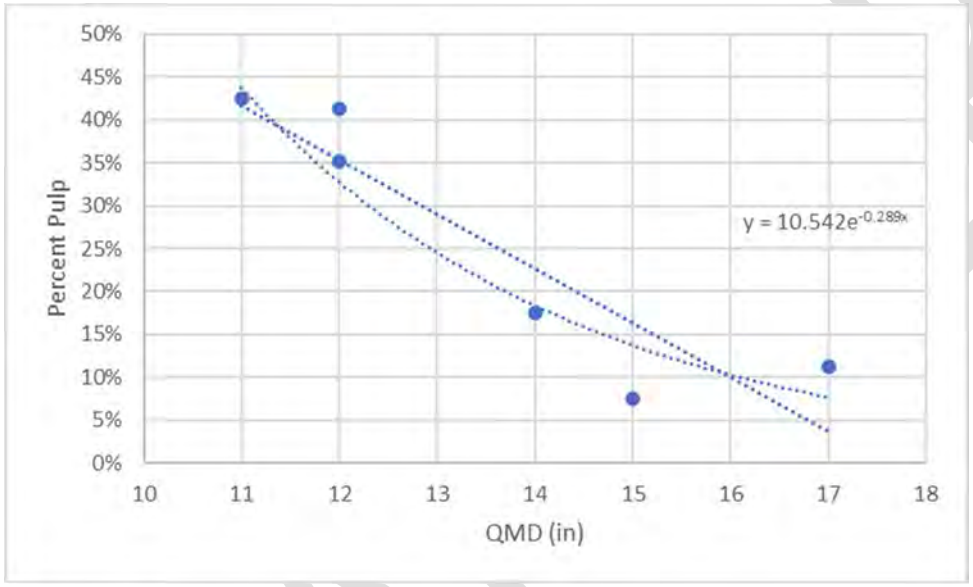

Figure 17: The relationship between percentage of volume in pulp logs relative to pre-harvest quadrative mean diameter (QMD)

Treatment year

Treatment years are assigned based on expected treatment need, as determined by previous planning document treatment need calls, competition metrics, and preliminary field review with harvest limited to an average maximum harvest of approximately 2 million board feet (MMBF) per year. Additionally, treatments are assigned one park at a time to focus impacts during a shorter time and provide long periods with treatment impacts. Treatments were manually assigned and iteratively adjusted to attempt to maximize restoration area and revenue to the County until all thinning needs have been addressed.

Log prices and harvest costs

Log prices and harvest costs used in the scenario analysis are based on past actual prices, average past costs, and expected future costs (Table 10). Log price scenarios cover the range of prices that the County received from 2014-2024 and cover the range of reported prices in 2025. This range is used for scenario forecasts because log prices are very volatile () and difficult to predict but provides a representation of what may be possible from 2025-2034. Stump to truck cost, the costs associated with felling and bucking trees, moving the logs to the landing, and loading logs onto trucks were relatively consistent from 2014-2024 so a single average used for all scenarios. Hauling costs, the cost for moving logs from the landing to the mill, were also relatively consistent so an average is used for all scenarios. Harvesting would be contracted through a professional services agreement with American Forest Management (AFM) at a cost of 5.7% of log sales from 2024-2027 with an expectation that that would continue through 2034. Road maintenance and improvement costs have been highly variable but averaged approximately 4% of gross log sales from 2014-2024, which is used for all scenarios.

Table 10: Log prices and harvesting costs for each financial analysis scenario.

	$70	$80	$90	$100	$110	$120
Sawlog price $/ton	$ 70	$ 80	$ 90	$ 100	$ 110	$ 120
Stump-truck cost $/ton	$ 38	$ 38	$ 38	$ 38	$ 38	$ 38
Haul cost $/ton	$ 15	$ 15	$ 15	$ 15	$ 15	$ 15
AFM cost $/ton[57]	$ 6	$ 6	$ 7	$8	$9	$ 10
Road cost $/ton[58]	$ 4	$ 4	$ 5	$6	$6	$7

[57] Per-ton equivalent of 5.7% of per-ton price.
[58] Per-ton equivalent of 4% of per-ton price.

Forest Stewardship Program costs

From 2014-2024 the stewardship and restoration treatments funded Forest Stewardship Program including the Stewardship Forester salary, interns, and other costs. The cost structure of the program changed in late 2023 with the addition of the Natural Resources Supervisor salary and benefits to the Forest Stewardship Program budget. Moving forward investments will be needed in forest inventory data and young stand thinning to meet stewardship and restoration goals. Costs used in scenario analyses include:

- Salary and benefit costs of $125,000/yr per position funded
- Forest inventory investment of $14,250/yr to meet inventory needs
- Young stand thinning investment of $32,500/yr to meet restoration targets

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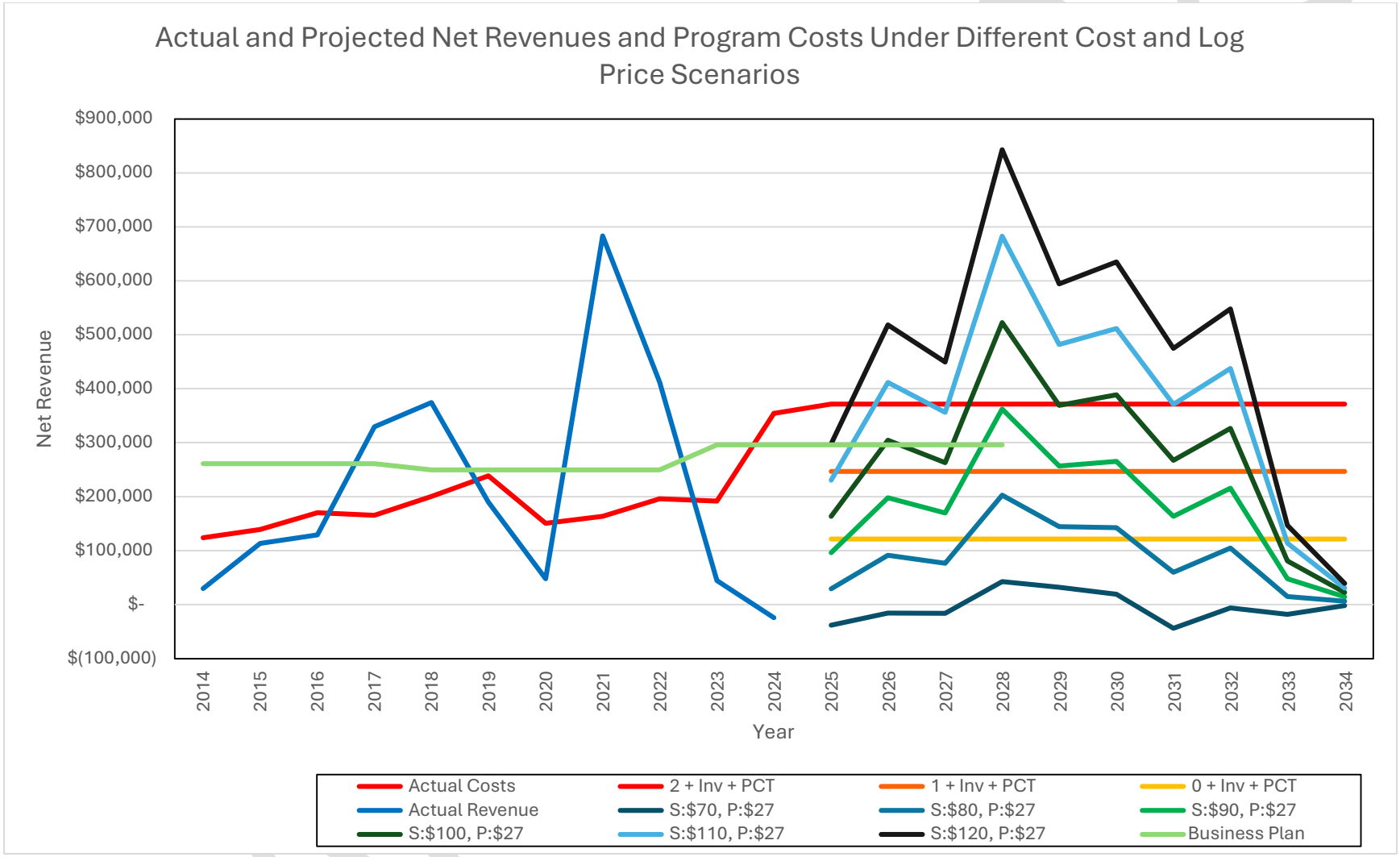
Actual and Projected Net Revenues and Program Costs Under Different Cost and Log Price Scenarios
$900,000
$800,000
$700,000
$600,000
$500,000
$400,000
$300,000
$200,000
$100,000
$-
$(100,000)
Net Revenue
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
Year
Actual Costs
Actual Revenue
S:$100, P:$27
2 + Inv + PCT
S:$70, P:$27
S:$110, P:$27
1 + Inv + PCT
S:$80, P:$27
S:$120, P:$27
0 + Inv + PCT
S:$90, P:$27
Business Plan

Appendix E - Kitsap County Parks Forestry Program Planning Schedule 2025-2034

Cross hatching indicates that scope and schedule of these actions depend on outcomes of Parks Stewardship Planning process and other factors.

* Project implementation activities will be based on outcomes of park and project planning processes. Activities may include thinning, invasive species treatment, habitat enhancement, etc. depending on what needs are identified.

Park	Forest Planning	Stage	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Port Gamble	Park Stewardship Plan *Current Plan: 2015*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment										
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Rude Road Site	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment										
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Eglon Forest	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment			*Timing of projects will be determined after Park Stewardship Planning*							
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Banner Forest	Park Stewardship Plan *Current Plan: 2015*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment			*Timing of projects will be determined after Park Stewardship Planning*							
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
North Kitsap	Park Stewardship Plan *Current Plan: 2015*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment				*Timing of projects will be determined after Park Stewardship Planning*						
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Newberry Hill	Park Stewardship Plan *Current Plan: 2013*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Illahee Preserve	Park Stewardship Plan *Current Plan: 2003*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Bandix Dog Park	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Gordon Park	Park Stewardship Plan *Current Plan: None*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment										
		Planning & Permitting										
		Project Implementation*										
		Monitoring										
Coulter Creek	Park Stewardship Plan *Current Plan: 2017/2021*	Park Assessment										
		Outreach & Planning										
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*				
		Planning & Permitting										
		Project Implementation*										

		Monitoring											
South Kitsap	Park Stewardship Plan *Current Plan: None*	Park Assessment											
		Outreach & Planning											
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*					
		Planning & Permitting											
		Project Implementation*											
		Monitoring											
Wicks Lake	Park Stewardship Plan *Current Plan: 2022*	Park Assessment											
		Outreach & Planning											
	Project Plan	Project Assessment											
		Planning & Permitting											
		Project Implementation*											
		Monitoring											
Hansville Greenway	Park Stewardship Plan *Current Plan: 2012*	Park Assessment											
		Outreach & Planning											
	Project Plan	Project Assessment						*Timing of projects will be determined after Park Stewardship Planning*					
		Planning & Permitting											
		Project Implementation*											
		Monitoring											