

Resolution Number 169 - 2012

**RESOLUTION ADOPTING THE KITSAP COUNTY  
INTEGRATED FOREST STEWARDSHIP POLICY**

WHEREAS, On May 7, 1998, the Board of County Commissioners adopted the 1998 Kitsap County Comprehensive Plan. Adoption of the 1998 plan satisfied the requirements set forth in the Growth Management Act including parks and open space elements. The Comprehensive Plan has been subsequently amended during the period of 2000 through 2012.

WHEREAS, as an element of the Kitsap County Comprehensive Plan, the Parks and Open Space Plan is updated every six years, adopted by the Board of County Commissioners on 2000, 2006 and 2012; and

WHEREAS, in collaboration with its stakeholders, park stewards and community groups, Kitsap County has implemented the goals and policies of these Plans, acquiring hundreds of acres of parks land and developing numerous passive and active recreation facilities within them; and

WHEREAS, the recently updated Parks and Open Space Plan includes a heightened emphasis on park maintenance and stewardship with continued acquisition efforts for its heritage parks and land; and

WHEREAS, Kitsap County's park inventory includes over 6,400 acres of parkland; and

WHEREAS, sixty percent of this parkland lack complexity as a result of repeated final harvests or clear cutting over the past 150 years; and

WHEREAS, the proposed Kitsap County Forest Stewardship Policy ("Policy"), incorporated herein as Attachment A, will provide for the science-based stewardship of county-owned forest lands and associated natural resources; and

WHEREAS, the Policy will be implemented as a pilot program over a four-year period and will be evaluated annually to determine its continuance beyond 2016. Implementation of the Policy will include clarification of responsibilities and evaluation measures to meet program goals outlined in the Policy; and

WHEREAS, the goal is for healthy, vigorous forests that support biological diversity while protecting and enhancing natural resources for multiple uses and sustaining long-term biological integrity; and

WHEREAS, the purpose is to ensure that forest stewardship and county operations are integrated and consistent with long-term natural resource stewardship and public use as well as meeting all legal requirements; and

WHEREAS, the successfully implemented Forest Stewardship Program will meet four goals which are closely related and not mutually exclusive:

1. Enhance natural ecosystem complexity and health;
2. Protect and enhance soil, water quality and fish and wildlife habitat;
3. Sustain biologically, socially and economically;
4. Provide safe, reasonable and appropriate public access to County forest lands; and

WHEREAS, the planning and implementation of ecosystem management will be highly participatory. Public Notices and meetings will be used throughout the Forest Stewardship Program planning, and implementation of ecosystem management practices will be implemented; and

WHEREAS, the public process began with an informational meeting on March 10, 2012; continued with an introduction to the Parks Advisory Board on April 18; and public meetings held July 17 in Kingston; July 24 in Port Orchard; and in Bremerton on July 31; and

WHEREAS, on September 19, 2012 the Kitsap County Parks & Recreation Advisory Board recommended Board of County Commissioners adoption of the Forest Stewardship Policy; and

WHEREAS, the Board of County Commissioner held a public hearing on October 8, 2012 to consider the Kitsap County Integrated Forest Stewardship Policy and to take public testimony; and

WHEREAS, after consideration of all public testimony received to date, the Board of County Commissioners deliberated on the merits of the Kitsap County Integrated Forest Stewardship Policy on October 22, 2012; and

NOW THEREFORE BE IT RESOLVED, the Board of County Commissioners adopts the Kitsap County Integrated Forest Stewardship Policy, as attached in Attachment A. The Policy will be implemented as a pilot program for the next four years. The Policy will be subject to annual evaluations to determine its efficacy and whether it will be continued after 2016..

DATED this 22nd day of October, 2012.



**BOARD OF COUNTY COMMISSIONERS  
KITSAP COUNTY, WASHINGTON**

Robert Gelder  
ROBERT GELDER, Chair

Charlotte Garrido  
CHARLOTTE GARRIDO, Commissioner

J. W. Brown  
JOSH BROWN, Commissioner

**ATTEST:**

Dana Daniels  
Dana Daniels, Clerk of the Board

**Approved as to form:**

Kevin Howell  
Kevin Howell, Deputy Prosecuting Attorney





**DRAFT**

# Integrated Forest Stewardship Policy

## Kitsap County Parks Department

Revised September 14, 2012



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## **1.0 EXECUTIVE SUMMARY**

The Kitsap County Forest Stewardship Policy is intended to provide for the science-based stewardship of county owned forest lands and associated natural resources. The goal is healthy, vigorous forests that support biological diversity while protecting and enhancing natural resources for multiple uses, and sustaining long-term biological integrity. The purpose is to ensure that forest stewardship and county operations are integrated and consistent with long-term natural resource stewardship and public use as well as meeting all legal requirements. This policy covers all current and future forest lands owned by Kitsap County and has to be economically self-sustaining.

Vision - Forest lands owned by Kitsap County have complex structure and composition with multifaceted functions providing high carrying capacity for diverse populations of animals; high productivity for plants; the natural regulation of nutrients and water cycling; healthy resilient forests; and a wide-range of human benefits.

The county will emphasize ecosystem management, a process that considers the environment a complex system functioning as a whole, not as a collection of parts. It also recognizes the environmental and social values of people. This ecosystem management approach will rely heavily on partnerships with Park Stewards, and private, tribal, and local, state, and federal government stakeholders. The ecosystem approach will:

- Go with nature: Work with native plant species that have evolved, adapted and are competitive and resistant to disease and insects.
- Provide forest wildlife habitat: Structurally diverse forests provide the best habitat for the greatest number of wildlife species
- Diversify species: Forests of mixed native tree species improve habitat, aesthetics and the value of both timber and non-timber assets and better support diverse wildlife populations.
- Recognize the true value of forest ecosystems: The stewardship of Kitsap County forests must not have a short-term view, but rather work as a dynamic and adaptive process that will benefit the county for centuries to come.
- Protect Water as a vital resource: Healthy, vibrant forest ecosystems are the best and least cost option for maintaining high water quality and for the management of surface and storm water runoff.

The county's successfully implemented forest stewardship program will meet four basic goals, which are closely related and not mutually exclusive:

1. Enhances natural ecosystem complexity and health;
2. Protects and enhances soil, water quality, and fish and wildlife habitat;
3. Is biologically, socially and economically self-sustaining; and
4. Provides safe, reasonable and appropriate public access to County forest lands.

It is the intent of Kitsap County to capture the full range of benefits and value from its forest land in a manner consistent with the county's overarching value of a growing community, a community where natural resources and systems are sustained for the benefit of current and future generations. This policy is congruent with the recently adopted 2012 Kitsap County Parks and Recreation Open Space Plan that strives to develop management plans focused on natural resource protection and land management.

To this end, the desired future condition of Kitsap County forestlands will include:

County/Watershed scale

- Long term protection of water resources
- Wildlife corridors that connect habitat across landscapes
- The protection of endangered species and associated habitats

Park scale

- Gaps and variable ecotype densities.
- Uneven-aged stands and even-aged stands.
- The eradication of invasive plant species or manage at low and controlled levels.
- Large trees and old growth forest structure.
- Variable forest tree age class distributions.
- A diversity of minor tree species and natural understory vegetation.
- The enhancement of public access and sustainable recreational opportunities for current and future generations.

Ecotype scale

- Forest ecotypes composed of stands of single and mixed native species.
- Stands density rates that enhance tree health and vigor.

Many of these conditions are already present, while others will take decades to achieve. The success of this policy will be measured by the rate at which desired future conditions exist on all Kitsap County forestland.

Each county-owned forested property is unique and needs its own forest stewardship plan. These forest stewardship plans will be at a scale compatible with natural processes; cognizant of nature's time frames; recognize social and economic viability within functioning ecosystems; and realized through effective partnerships with park stewards, other citizens and among county, private, state, tribal and federal stakeholders.

Early review of proposed forest stewardship practices and the assessment of environmental risk will be achieved by the county's environmental review process, which requires that all new projects, programs, and operations, or changes to existing projects, programs, and operations, be reviewed respective park stewardship volunteers and by various departments for potential impacts to the environment. Habitat loss has a direct correlation to a decline or loss of fish and wildlife populations. Forest stewardship planning will include habitat conservation planning and



endeavors to minimize or prevent loss of habitat, thus preserving animal species diversity and populations.

While ecological and social goals are primary, forest ecosystem prescriptions will need to generate revenue to support ecosystem practices without compromising overall social and ecological benefits.

## **2.0 PURPOSE OF THE POLICY**

The Integrated Forest Stewardship Policy is a guide that supports the stewardship of Kitsap County forest lands and associated natural resources. The goal is healthy, vigorous forests that support biological diversity while protecting and enhancing natural resources for multiple uses, and sustainable and biological integrity. The primary purpose is to ensure that forest land and natural resources conservation and county operations are integrated and consistent with long term natural resource stewardship as well as all legal requirements.

As elected community representatives, the Kitsap County Board of Commissioners recognizes that healthy and diverse forest ecosystems are critical to future generations. In many cases, social values, economics, and political factors have more of an impact on natural resources stewardship than do biological sciences. Decisions made by Commissioners, with public involvement of the park stewards and advisory, have and will continue to influence future forest land conditions. Everyone's perspective, including those of the Park Stewards, is needed for the forest land stewardship planning processes and implementation.

This Integrated Forest Land Stewardship Policy is designed as a guide for the planning and stewardship of Kitsap County forest lands and associated natural resources in accordance with the County's priority to protected natural resources and systems. The primary purpose of the policy is to ensure that natural resources stewardship measures are integrated and compliant with all existing public laws, policies and legal requirements.

This policy covers all current and future forest lands owned by Kitsap County. Some county owned natural resource lands are currently under intensive management for surface mining, waste management and other natural resource uses that provide public benefit and contribute to capital infrastructure. Several county parks have adopted management plans. As these plans are updated, addition data from ecological assessments with recommendation can be added.

## **3.0 FOREST STEWARDSHIP VISION**

Forest lands owned by Kitsap County have complex structure and composition with multifaceted functions providing high carrying capacity for diverse animals, high productivity for plants, the natural regulation of nutrients and water cycling, healthy resilient forests and a wide-range of human benefits.

## 4.0 STEWARDSHIP OBJECTIVES

### 4.1 Forest Stewardship Philosophy

Kitsap County believes in the long-term stewardship of its forested property. In accordance with the county's 2009 Water as a Resource policy, Kitsap County also recognizes the role of forested landscapes as critical natural deterrents to surface and storm water runoff, and essential to the protection of groundwater recharge areas. Therefore, the long term health and vitality of county owned forest land is essential to the protection of soil, water, fish and wildlife resources.

The County will emphasize ecosystem management, a process that considers the environment as a complex system functioning as a whole, not as a collection of parts. It recognizes the needs of people and the county's mission as parts of the whole. This ecosystem management approach relies heavily on partnerships with Park Stewards, and private, tribal, local, state, and federal government stakeholders. The ecosystem approach will:

- Go with nature: Work with plant species native to the site that have evolved, adapted and are competitive and resistant to disease and insects.
- Provide forest wildlife habitat: Structurally diverse forests provide the best habitats for the greatest number of wildlife species
- Diversify species: Forests of mixed native tree species improve habitat, aesthetics and the value of both timber and non-timber assets and better support diverse wildlife populations.
- Recognize the true value of forest ecosystems: The stewardship of Kitsap County forests must not have a short term view, but rather work as a dynamic and adaptive process that will benefit the county for centuries.
- Protect Water as a vital resource: Healthy, vibrant forest ecosystems are the best and least cost option for maintaining high water quality and for the management of surface and storm water runoff.

### 4.2 Kitsap County Forest Stewardship Goals and Objectives

The County's successfully implemented forest stewardship program will meet four basic goals, which are closely related and not mutually exclusive:

1. Enhances natural ecosystem complexity and health;
2. Protects and enhances soil, water quality, and fish and wildlife habitat;
3. Is biologically, socially and economically self-sustaining; and
4. Provides safe, reasonable and appropriate public access to County forest lands.

The County's forest land stewardship program objectives are the following:

- Protect, conserve and manage watersheds, wetlands, soils, forests, fish and wildlife and other natural resources as essential elements of the forest ecosystem.

- Retain biological legacies for future stands: Use small irregular shaped thinning patches and retain clumps of trees to provide habitat and speed development of older forest characteristics.
- Manage at a landscape scale: Partner with neighboring landowners and other stakeholders to work toward landscape scale objectives.
- Involve the public through public involvement and collaboration in planning and education using forest ecosystem tours featuring stewardship practices.
- Enhance the local economy: Strive to employ local contractors and use local suppliers whenever possible.
- Create sustainable outdoor recreation opportunities for current and for future generations.

#### 4.3 Current Condition - County Parks

Nearly 65 percent of the forested Park acreage is Douglas fir plantations established since 1945. This is the result of industrial management with repeated clear-cut harvesting followed by the preferential planting of Douglas fir seedlings.

Breakdown of acres and volumes by eco-type for Kitsap County park lands.

Eco-Type	Number of Stands	Average Standing MBF <sup>1</sup> /Acre	Total Acres in System	Acres to Treat over 15 years	Percent of Total Acres Treated
Conifer Young (10-30 yrs)*	17	2.3	562	412	75%
Conifer Mid (30-60 yrs)*	15	12.4	1,664	1,248	75%
Conifer Mature (60+ yrs with simple canopy structure)	22+	34.7	2,046	1,350	66%
Conifer Complex (60+ with complex structure)	5	44.3	141	0	0%
Hardwood dominated	5	27.7	201	0	0%
Wetland and open water	6	0.0	416	0	0%
Unclassified		0.0	1,470	0	0.0
<b>Total</b>	<b>70+</b>		<b>6,500</b>	<b>3,020</b>	<b>47%</b>

<sup>1</sup>MBF = Thousand board feet. \* Simple canopy structure

Using preliminary forest inventory data gathered in 2011/12, forest areas within each park were divided into stands based on species composition and age class. Stands were then classified into ecological types or “eco-types”, and the average standing volume for each eco-type derived. A second source of inventory data from the USFS Forest Service was used to corroborate these totals. A management scenario was then created for three 5 year periods to provide a baseline of what is possible under conservative assumptions. For example, only 66% - 75% of acres in eco-types that will clearly benefit ecologically from thinning are treated, even though more are likely to be treated based on ecological need. The actual number of acres treated over time will be determined during subsequent individual park planning processes.

#### **4.4 Desired Future Condition**

It is the intent of Kitsap County to capture the full range of benefits and values from its forestland in a manner consistent with the county's overarching value of a growing community where natural resources and systems are sustained for the benefit of current and future generations.

To this end and at different scales, Kitsap County forestlands will include:

##### Watershed scale

- Long term protection of water resources
- Wildlife corridors that connect habitat across landscapes
- The protection of endangered species and associated habitats

##### Park scale

- Gaps and variable ecotype densities.
- Uneven-aged stands and even-aged stands.
- The eradication of invasive plant species or manage at low and controlled levels.
- Large trees and old growth forest structure.
- Variable forest tree age class distributions.
- A diversity of minor tree species and natural understory vegetation.
- The enhancement of public access and sustainable recreational opportunities for current and future generations.

##### Ecotype scale

- Forest ecotypes composed of single and mixed native species.
- Stands density rates that enhance tree health and vigor.

Many of these conditions are already present, while others will take decades to achieve. The success of this stewardship policy will be measured by the rate at which desired future conditions or characteristics exist on all Kitsap County forestland.

## **5.0 THE FOREST STEWARDSHIP PLANNING PROCESS**

Forest Stewardship planning will occur at three levels: County-wide scale; Park/Property scale; and the ecotype scale. The county-wide plan will consider the 6,500 acres as a whole, instead of as separate properties or parks and will serve as a single set of ecosystem management guidelines for all county ownerships.

### **5.1 County Scale**

County scale planning is the landscape level and is intended to provide the most protection of species, water resources and the economic sustainability of county owned forestlands. All county owned forest lands will be assessed together, or within major watersheds and include



the involvement and input of stakeholders and neighboring private landowners. More detailed analysis is needed to provide guidance on how stewardship in the parks can improve watershed and forest health. Forest structure types, soils, and key habitats found across all county lands need to be classified with general management approaches prescribed. Different management designations may be necessary (e.g. land managed exclusively for habitat or recreation vs. lands where variable density thinning is allowed). The County plan can be the blueprint for partnerships with adjacent landowners including public, private and tribal lands.

## **5.2 Park Scale**

Based on the county wide plan, each county-owned forest will need its own forest stewardship plan. By using a common ecological framework, forest assessment and modeling can be done efficiently and be more cohesive by combining stands of similar age structure and complexity instead of modeling all stands in every park. Modeling is to be done using USDA Forest Vegetation Simulator (FVS) 20 with planning broken into two five-year implementation windows followed by a third 10 year window with plan updates at the beginning of each window.

## **5.3 Ecotype Scale**

Specific ecotype treatment prescriptions will be based on guidelines established in the county wide and individual park plans. Flexibility will be provided so that park stewards and managers can tailor prescriptions to the specific ecological and social needs of individual stands. This flexibility may be essential to ecologically and economically effective management given rapidly changing technology, climatic and social conditions.

All of three scales of forest stewardship planning will utilize an ecosystem management approach to environmental stewardship that is compatible with natural processes; is cognizant of nature's time frames; recognizes social and economic viability within functioning ecosystems; and is realized through effective partnerships with park stewards, citizens and among county, private, state, tribal and federal stakeholders.

Early review of proposed forest land stewardship actions and the assessment of environmental risk will be achieved by the County's environmental review process, which requires that all new projects, programs, and operations, or changes to existing projects, programs, and operations, be reviewed by various departments for potential impacts to the environment. The county will be able to review planned actions, assess the risks to natural resources systems, and take public comments on alternatives to a proposed stewardship action to minimize or eliminate the risks. An early review process also allows an opportunity to identify the appropriate SEPA documents that will be required based on the proposed actions and alternatives.

## **6.0 PUBLIC OUTREACH AND ENGAGEMENT**

Social values along with economic and political factors often have a greater impact on natural resources stewardship than do the natural resource sciences. Decisions made by the Kitsap County Board of Commissioners, with public involvement, have and will continue to influence future ecological conditions of county owned forests. Everyone's ideas and perspectives are needed to insure that county owned forests are healthy and provide the highest quality fish and wildlife habitat, and public access.

### **6.1 Forest Stewardship Advisory Council**

Kitsap County will establish a Forest Stewardship Advisory Council, which will advise the Kitsap County Board of County Commissioners, involved county departments and the Kitsap County Stewardship forester. Forest Stewardship plans and finances will be subject to normal public review, approval and disclosure processes. The Forest Stewardship Advisory Council will be comprised of park stewardship volunteers, other community stakeholders, along with individuals and organizations representing natural resources stewardship expertise.

### **6.2 Forest Stewardship Planning/Review/Implementation**

Every element of forest stewardship planning and implementation for each county park will primarily involve park stewards along with other interested citizens, stakeholders and neighboring landowners. Every reasonable effort will be made to work with community-based groups to enhance the safe and appropriate recreational potential of county owned forest land.

### **6.3 Park Stewardship Volunteer Opportunities**

Park Stewards will be recruited from existing public and private volunteer organizations and the general public. These volunteers will have the opportunity to be technically trained and participate in the resource inventory, research, resource planning, and public outreach and educational components of the Kitsap County Forest Stewardship Program.

Stewardship volunteers typically have a wide range of interests and expertise. They will have the opportunity to contribute their time and talents to future the goals of the Forest Stewardship Program. The involvement of these stewardship volunteers will be primary to the forest stewardship planning and implementation.

### **6.4 Public Education & Outreach**

Classes, workshops and site tours will be offered annually to educate citizens on the ecology of each county park. Forest, fish & wildlife and wetlands experts will be scheduled along with presentations on the cultural and historical significance of many of Kitsap County's parks.

## **7.0 SETTING**

### **7.1 Historic Context**

Forested Kitsap County lands have been gifted to or purchased by the County starting in the late 1960's. The largest tracks of forest land range in size from 30 to 1,195 acres and have been acquired since 1998. These larger forest parcels represent over 80 percent or 5,000 acres of the 6,099 acres of forests managed by the Kitsap County Parks and Recreation Department. In addition, the Kitsap County Department of Public Works oversees approximately 800 acres of forest land.

The largest tracks of these forest lands were previously managed as industrial tree farms or owned by the State of Washington and managed by the Washington State Department of Natural Resources. All of these forest lands contain second- or third-growth stands following the original old growth harvests in the early 1900's and subsequent harvests dating from the 1950's, 60's, 70's and 80's. A few of the properties were homesteads dating back to early settlement where portions of the property were cleared of stumps for pasture and cultivation.

Prior to the Point Elliot Treaty of 1855, the entire region of Kitsap County was the home to several South Coast Salish tribes including the Suquamish and Port Gamble S'Klallam. No tribal settlement areas have yet been found on county owned forestland.

The existing forest stand conditions on all of these properties reflect a wide range of practices. Practices included industrial cropping prescriptions where no stewardship practices have occurred since the original old growth was harvest largely in the 1930's. Many tracts are single species made up of even-aged stands of Douglas-fir. There are some remnant old growth trees on many parcels. The history of each county owned forest will be referenced in detail in respective forest stewardship plans.

### **7.2 Socio-Economic Context**

Kitsap County has changed a great deal since it was formed in 1857. Early settlement was tied to fishing, farming and the timber industry. There were multiple saw mills in Kitsap with several still operating after WWII. The population dramatically increased starting in the 1970's. Today's population of 250,000 people makes Kitsap one of the most densely populated counties in the State of Washington. Yet, at the same time, Kitsap County has extensive forest cover. Jobs in farming and timber have long since been replaced by jobs that take advantage of today's mobility and technology. Forests contribute significantly to the rural character and beauty of the county.

Forested landscapes are a valued component and residents have come to expect the forestlands held in public ownership to remain as such in perpetuity. Publically owned forested parcels are highly valued for recreational activities including running, hiking, biking, dog walking, equestrian riding, and bird watching. The forests that are Kitsap County Parks not only contribute to rural character and livability; they add value to the overall economy.

### **7.3 Landscape Context**

It has long been a vision by many to see Kitsap County develop greenways that link regional trails throughout the Puget Sound and Olympic Peninsula. Both private and public forestlands are important elements to this concept. Keeping large blocks of forestland undeveloped and contiguously connected requires a landscape approach to both growth management and forest stewardship.

Surrounding landscapes often include endangered or sensitive species habitats, including that of eagles, marbled murrelet and Pacific salmon. Therefore a landscape level approach will provide the best overall benefits to water quality, fish, wildlife habitat and regional wildlife corridors. Much of Kitsap County's remaining large blocks of forestland are in watersheds that contain the headwaters for many streams and creeks, and are important riparian habitat.

### **7.4 Legal Context**

Kitsap County forestlands are subject to U.S. Federal environmental laws and regulations. Most important is the Endangered Species Act (ESA), which requires the protection and recovery of listed wildlife species. Species protected under ESA habitat in Kitsap County forestland include marbled murrelet and various Pacific salmon species. The Clean Water Act (CWA) addresses non-point source pollution to streams and other receiving waters and requires consideration in all forest stewardship activities.

Washington State laws and rules involve the Forest Practices Rules (3) regulated by the Washington State Department of Natural Resources (DNR). These rules are designed to protect soil, water, fish and wildlife, and capital improvements (roads, power lines) from impacts related to forest practices on private, county and state forest lands. The practices relate to the growing, harvesting, or processing timber, including but not limited to, road construction and maintenance, thinning, salvage, harvesting, reforestation, brush control and the use of fertilizers or pesticides. The Washington State Forest Practices Act and its corresponding rules regulate these practices.

## **8.0 RESOURCE CONDITION**

### **8.1 General Physical Environment**

Kitsap County is located in the Puget Lowland Physiographic Province of western Puget Sound. This geographic region is bounded on the east by the Cascade Range, on the west by the Olympic Mountains, on the north by the U.S.-Canadian border (although the physiography continues into British Columbia), and on the south by the low hills of the Coast Range near Olympia. Landforms in this province developed as a result of glaciation during the last ice age. Topography associated with this portion of the Puget Lowland is flat lying to moderately steep.



Kitsap County is bounded by Puget Sound on the east and north, Hood Canal on the west and Pierce County to the south. Kitsap County comprises 398 square miles (254,720 acres). County Park's forest lands comprise approximately 6,000 acres. Kitsap County Park's forest land parcels are shown in Map 1.

## **8.2 Climate**

Kitsap County, located in the rainy convergence zone south and east of the Olympic Mountains, receives average sunshine and overcast for the Puget Sound. Measurable precipitation averages 45 inches per year across the county. Snowfall is light adjacent to tidewater, increasing with distance from the water and rise in elevation.

The average monthly maximum summer temperatures are in August, ranging from 65° F near the water to 75° F inland and seldom exceed 90° F. The average monthly minimum temperature is usually in January in the lower 30's. Minimum temperature of -5° has been recorded; however, the minimum temperature seldom drops below 15° to 20° F. The coldest weather is usually associated with cold air fronts from Alaska and Canada. The average date of the last freezing temperature in the spring ranges from the latter half of March near the water to the last of April in agricultural areas 100 to 300 feet above sea level and a few miles inland. The first freezing temperature in the fall is about the first of November.

## **8.3 Geology**

As part of the Puget Sound lowlands, Kitsap County is mantled with glacial sediments deposited during several ice advances over the last 50,000 years. The glacial sequence varies in composition and thickness depending on location. Glacial activity left characteristic signatures on the region's landscape, including numerous lakes and streams, and broad, relatively flat islands, and deeply incised river valleys. The geology of Kitsap County is composed of reworked beach deposits and bedrock along the immediate shoreline to a thin sequence of glacial till, bedrock and deeper, more productive soils across the balance of the county.

## **8.4 Topography**

Kitsap County measures approximately 65 miles in length north to south, and approximately 22 miles west to east at its widest point. Gold Mountain, at 1,761 feet above mean sea level, is the highest point in the County. Much of the shoreline consists of near vertical bluffs that range in height from 0 to 200 feet in elevation. Like most of Puget Sound, the beaches and nearshore areas of Kitsap County have a very high percentage of sediments supplied by erosion of coastal bluffs and not by rivers and streams.

## **8.5 Soils**

Soil characteristics will be used to predict the probable impact of various forest stewardship practices on individual soil map units. Probable impacts can be predicted for: woodland

suitability, soil compaction, slope stability, competing vegetation and tree wind throw. Soils were mapped as part of the Kitsap County Soil Survey<sup>4</sup>, published by USDA NRCS (Soil Conservation Service) in 1980. This reference provides specific soils mapping units, profile descriptions and pertinent land use information.

## **8.6 Growth Management Act**

Under the Growth Management Act (GMA)<sup>5</sup> Kitsap County is required to classify and designate critical areas through comprehensive planning and develop regulations to protect them. The Critical Areas Ordinance (CAO) contains specific regulations to protect critical areas in Kitsap County (6). As defined in the CAO, critical areas include the following categories and ecosystems:

- Wetlands
- Fish and Wildlife Habitat Conservation Areas
- Geologically Hazardous Areas
- Frequently Flooded Areas
- Aquifer Recharge Areas

The CAO supplements development regulations outlined in the Kitsap County Zoning Ordinance (Title 17)<sup>8</sup> and other County regulations. Although the Zoning Ordinance requires development permits, the CAO requires additional review for land use activities adjacent to or in critical areas.

As a part of Shoreline Master Planning and the Growth Management Act and Critical Areas Ordinance, Kitsap County has conducted assessments and surveys of a wide range of geologic, soil and water resource features. Kitsap County has mapped the following features<sup>7</sup>: Soils – Map 5-1; Geologically Hazardous Areas – Map 5-2; Streams and Surface Water – Map 5-3; Shoreline Master Plan Environmental Designations – Map 5-4; Topographic Elevation Data – Map 5-5; Watershed Delineations – Map 5-6; and Critical Aquifer Recharge Areas – Map 5-7. These maps are found in Appendix D and provide valuable information for the forest stewardship planning process.

## **8.7 General Biotic Environment**

Kitsap County forest lands are located in the Puget Trough Ecoregion<sup>9</sup>. The Puget Trough Ecoregion is situated between the Cascade and Olympic Mountains and the Willapa Hills. It includes Puget Sound and the lowlands south to the Columbia River. The ecoregion extends north into the Georgia Basin in British Columbia and south into the Willamette Valley in Oregon. Roughly eight percent of Washington is within this ecoregion. The Puget Trough Ecoregion includes the marine waters of Puget Sound and the lowlands generally up to about 1,000 feet above sea level. A few isolated highlands within the ecoregion extend up to 2,400 feet in elevation.

The Puget Trough Ecoregion is characterized by glacial landforms and cool, relatively mild climate dominated by Pacific maritime weather systems. Historically, the uplands were covered in extensive conifer forests, with prairies and other open areas found in the southern portion of the ecoregion. This region is now one of the most human-populated areas of the Northwest, and humans have altered the region by extensive logging, farming and by building cities and vast suburbs. Historically, a wide range of animal and plant life was found here, and this is still true in habitats that have not been extensively altered. Puget Sound dominates the ecoregion and provides a habitat for many species of marine animals and vegetation.

### **8.8 Vegetation**

Kitsap County forest lands are within the *Tsuga heterophylla* Zone (Western Hemlock Zone), a vegetative zone that occupies extensive areas of western Washington (Franklin and Dyrness 1973)<sup>10</sup>. Plant communities which have not experienced alteration from logging or urbanization would typically consist of western hemlock (*Tsuga heterophylla*), Douglas-fir (*Pseudotsuga menziesii*), and western redcedar (*Thuja plicata*) with lesser amounts of western white pine, shore pine and grand fir, and an understory of sword fern (*Polystichum munitum*), vine maple (*Acer circinatum*) and salmonberry (*Rubus spectabilis*) (Franklin and Dyrness 1988). Within this vegetative zone, riparian and wetland plant communities tend to be dominated by red alder (*Alnus rubra*), black cottonwood (*Populus balsamifera*), and salmonberry. Bigleaf maple (*Acer macrophyllum*) is often found scattered throughout the lower reaches of this zone, typically on the edges of open areas or in areas disturbed by fire, clearing, or logging.

In addition to the above named species, Pacific madrone (*Arbutus menziesii*) is found throughout the forest lands, indicating the drier micro-climates and perhaps droughtier soils. Understories within this drier zone are characterized by salal (*Gaultheria shallon*) and oceanspray (*Holodiscus discolor*). Other plants found and identified typify the plants of the *Tsuga heterophylla* Zone described above, and also included such species as Oregon-grape (*Berberis nervosa*), Pacific rhododendron (*Rhododendron macrophyllum*) and Nootka rose (*Rosa nutkana*). The complete list of plants found is listed in Appendix D, and this list is considered representative of the current natural (non-landscaped) terrestrial flora of Kitsap County forest lands.

### **8.9 Forests and Regional Silvics**

Kitsap County had the typical Pacific Coastal forest trees that were historically renowned for their majestic size, value and were logged extensively starting in the mid 1800's. Today's forests are second or third-growth forests, both planted and naturally seeded. Most stands are even-aged Douglas fir with historic old stumps and downed logs as the only vestige of the original forests. The actions of early timber companies and the more recent activity of the industrial tree farm approach to management have in many cases resulted in dense single species forest stands. Naturally occurring tree species including hemlock, alder and spruce enrich and support valuable structure and habitat diversity favored through ecosystem management. The silvical regions that cover Kitsap County include the Coastal Douglas-fir; Douglas-fir/Western Hemlock; Red Alder and Sitka Spruce types<sup>11</sup>:

### **8.9.1 Coastal Douglas-fir**

Coastal Douglas-fir forests are among the most productive forests in the world. These stands are composed of at least 80% Douglas-fir, with lesser amounts of other species, including western hemlock, grand fir, shore pine, western white pine, western red cedar, Sitka spruce, red alder, bigleaf maple, black cottonwood and Pacific madrona. Forests of this type are widespread west of the Cascade Range at elevations from sea level to approximately 1,500 feet. Douglas fir forests regenerate naturally following fire with seed provided by scattered surviving trees. Planting following harvest also regenerates Douglas-fir forests. Mature stands may remain healthy for centuries. When mortality or wind-throw of some of these dominant or co-dominant trees creates gaps in the canopy, shade-tolerant species such as western hemlock, western red cedar, and grand fir become established. Unless another disturbance renews the cycle, these shade-tolerant species will eventually dominate the forest cover. Most coastal Douglas-fir forests are essentially even-aged; not until the trees are centuries old and the shade-tolerant species become well established in the understory do these forests become more diverse in age class structure.

### **8.9.2 Douglas-fir/Western Hemlock**

The Douglas-fir/western hemlock mixed forests are similar to the coastal Douglas-fir forests except that, together, Douglas-fir and western hemlock make up 80% of the co-dominant trees. These are mixed species stands. Douglas-fir is usually the most common species, but on less fertile or very moist sites, western hemlock may dominate. The most common associated species is western red cedar. Other associated species include grand fir, shore pine and western white pine. At low elevations, Sitka spruce (*Picea Sitchensis*) is often present. This forest type thrives in mild, humid climates. Following fire, these mixed stands may convert to nearly pure stands of red alder. Western hemlock, which is quite shade tolerant, often establishes under and among the Douglas-fir, recreating the mixed species type. Sometimes hemlock forms a substantial portion of the main canopy. When stressed by high temperatures or low soil moisture, hemlock remains in the understory as other species grow over the hemlock to form the co-dominant overstory.

### **8.9.3 Red Alder**

These forests occur west of the Cascades, usually as pure stands. Stands of red alder typically grow below 1500-foot elevation, in riparian areas, in moist coves, or in early stages of succession following soil disturbance. Elsewhere in western Washington, red alder grows mixed with other short-lived hardwoods such as bigleaf maple, black cottonwood, and Pacific willow; or with conifers, including Douglas-fir, Sitka spruce, western hemlock, western red cedar, and grand fir. Forests dominated by red alder are always even-aged. Because red alder is very shade intolerant, only dominant or co-dominant trees survive. Starting at an early age, red alder produces abundant annual seed. This gives it a competitive advantage over most conifers. Since red alder has no serious insect or disease problems, it will grow readily on many sites infected by conifer root-rots. Red alder improves soil fertility through nitrogen fixing in the rooting zone and produces large quantities of litter that decompose rapidly, adding nutrients and organic matter to forest soils. Shrubs are generally an important component of red alder forests. Common



shrubs associated with red alder include Pacific red elder, blueberry elder, salmonberry, thimbleberry, and devil's club.

#### **8.9.4 Sitka Spruce**

Sitka spruce occurs primarily along the Pacific Coast. It is a mildly shade-intolerant species unlike other spruce species found in the west. It often forms pure stands within three to four miles of salt water. The white pine weevil (*Pissodes strobi*), a native insect, often limits Sitka spruce range. On better sites Sitka spruce often grows with western red cedar and western hemlock. Red alder occurs where light reaches the forest floor.

### **8.10 Wetland and Riparian Areas**

Executive Order (EO) 11990 (1977) <sup>12</sup>, defines the term "wetlands" as those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. State law and regulation require the County to minimize the loss or degradation of wetlands and to enhance their natural values. Section 404 of the Clean Water Act prohibits discharges of dredged or filled material into waters of the U.S., including wetlands, without first obtaining a permit from the U.S. Army Corps of Engineers. The County will comply with the national goal of no net loss of wetlands, and will avoid loss of size, function and value of wetlands.

In addition, the County will preserve and enhance the natural and beneficial values of wetlands in carrying out its activities. In order to comply with the "No Net Loss of Wetlands Policy", the County departments with forest land stewardship responsibility shall ensure the following:

- That all County forest stewardship planned construction and operational actions avoid adverse impacts to or destruction of wetlands. Any construction requirement that cannot be sited to avoid wetlands shall be designed to minimize wetlands degradation and shall include compensatory mitigation as required by wetlands regulatory agencies in all phases of the project's planning, programming, and budgeting process. Within this policy, use of County forest lands and lands of other entities are permissible for mitigation purposes for County projects when consistent with EPA and COE guidelines or permit provisions. Requests by non-County entities to mitigate the effects of non-County projects on County property should be reviewed on a case-by-case basis for their effect on County operations, forest land stewardship, the environment, and appropriateness of economic compensation to the County for the long-term use of the site, all such projects need to be approved by the county commissioners;
- That any action significantly affecting wetlands is addressed by the environmental review and public notification process (SEPA);

- That the boundaries of legally defined wetlands, on all County lands, are identified and mapped with sufficient accuracy to protect them from potential unplanned impacts, and that the maps are distributed to all potential users. Jurisdictional wetland maps may be required prior to actual construction if there is any potential of wetlands present in the vicinity of the project. Field verification and jurisdictional determinations and delineations should be required for all projects;
- That adequate expertise is available to county commissioners and forest land stewardship departments for the protection, management, identification, and mapping of wetlands.
- That implementation of wetlands creation or enhancement projects and wetlands banking, where compatible with county operations, is encouraged. Wetland stewardship strategies vary depending primarily on the wetland's classification, which is determined by the value of a particular wetland. A wetland's value is decided by the quality of the functions it provides, including its total biomass and biomass production, habitat, erosion control, storm water storage, water quality protection, aquifer recharge potential, and low flow augmentation. Some of the factors used to measure the quality of these functions are the wetland's size, its location in the watershed or forest area, the amount of development in the watershed, vegetative structure and composition, rate of water flow through the wetland, the size of natural buffers, and surrounding land uses. Regardless of the habitat value, wetland areas are almost always poor choices for building sites or for most activities, other than providing non-consumptive (passive) enjoyment of the outdoors.
- During the program/project review process, the county will be diligent about encroachment and impacts to the wetlands found on County forest lands, and ensure that program/project managers are aware of the laws and regulations regarding the protection of wetlands.
- If construction is to occur near wetlands, water quality and quantity impact can be lessened by retention of natural swales, depressions, and areas with permeable soils.
- Wetlands stewardship will include retention of adjacent areas of native riparian vegetation, especially if they connect to other wetlands. This creates landscape corridors that allow uninhibited movement of wildlife between wetlands and adjacent habitat areas. Other priority upland practices include:
- Use only sound pesticide techniques. Exclude pesticides from wetland buffers except as necessary for control of exotic invasive species. Minimize pesticide use during rainy seasons.
- Exclude livestock, vehicles, and foot traffic from wetlands and buffers. Plant native vegetation around wetlands. Do not use fences that would restrict wildlife movement.

- Review storm water runoff - Proposed projects and programs for storm water or other discharges to ensure that these discharges do not degrade the water or sediment quality of the receiving waters on or surrounding County forest lands.

The wetland delineations portrayed on Map 5-3 in this document were not precisely mapped. Therefore, they should be considered rough estimates. This information should be used in the planning phase of proposed projects or operations. If a project is planned in the proximity of a wetland system shown on Map 5-3, the wetlands in the immediate area should be flagged and surveyed to adequately show the jurisdictional boundaries.

Riparian areas are defined as lands adjacent to wetlands and open water systems which include lakes and streams. Riparian areas are vital to the proper hydrologic function and condition. Riparian vegetation helps dissipate stream energy during high water flows, filter sediment, capture bedload, provide root masses that stabilize stream banks and large woody-debris for diverse ponding, wildlife habitat and system biodiversity. Riparian area assessment along with restoration planning and implementation will be a long term focus and addressed in each forest stewardship plan.

### **8.11 Habitat Conservation Planning**

Habitat loss has a direct correlation to a decline or loss of fish and wildlife populations. Map 5-9 is the wildlife habitat assessment for the entire county. This Policy will provide for habitat conservation planning as part of the stewardship of Kitsap County's forest lands. It endeavors to enhance or prevent loss of habitat, thus preserving species diversity and populations. The following stewardship criteria will ensure that County forest lands provide a wise stewardship ethic in managing the fish and wildlife resources found there:

#### **8.11.1 *Program and Project Review***

Forest land managing departments will review all proposed projects and operations for possible impacts to habitat and fish and wildlife. If impacts to habitat or fish and wildlife are identified, the Stewardship Forester will provide recommendations to the program/project managers so that changes or mitigation can be considered early in the planning process. The recommendations may include, but are not limited to, construction best management practices for erosion control, changing the aspect or placement of a new project or facility to protect trees, identifying wetlands and wetland buffers that must be protected, or other recommendations that will help Kitsap County preserve its fish and wildlife habitats. The Stewardship Forester is also available to help decide on the best mitigation designs if habitat loss is unavoidable.

#### **8.11.2 *Habitat Inspections***

The County Stewardship Forester may frequently drive and walk throughout forest lands, inspecting various habitats for unauthorized encroachment or impacts, and stay familiar with fish and wildlife use of these areas. The Stewardship Forester has the ability to elevate concerns about habitat impacts to the Parks Director, County Commissioners or their designated representative.

As mentioned above, managing habitat for diversity, protection, and enhancement will have the greatest benefit for wildlife, including reptiles and amphibians, on county forest lands. Protection of wetlands and retention of downed logs as large organic debris will benefit these species. Kitsap County has conducted a wildlife habitat assessment shown on Map 5-9 in Appendix E. There have been no systematic surveys of reptiles or amphibians on Kitsap County forest lands. Efforts will be made to secure data from a wide variety of sources including private, state and federal survey data on species of wildlife known to exist in the county. Kitsap County forest lands support a number of mammals, including Columbian black-tailed deer (*Odocoileus hemionus columbianus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), mink (*Mustela vison*), short-tailed weasel or ermine (*Mustela erminea*), river otter (*Lutra canadensis*), muskrat (*Ondatra zibethica*), and red fox (*Vulpes vulpes*). A list of mammals may be found in Appendix F. Black bears (*Ursus americanus*) have been sighted on these lands.

### **8.12 Threatened and Endangered Species**

Kitsap County Forest Stewardship plans will, where ever possible, comply with applicable state and federal protections of threatened and endangered species and their habitats in a manner that promotes conservation of threatened and endangered species and is consistent with plans for recovery of such species.

Federal Threatened and Endangered species that occur or potentially occur on Kitsap County forest lands or in the adjacent waters are the marbled murrelet (*Brachyramphus marmoratus*), bull trout (*Salvelinus confluentus*), Hood Canal summer-run chum salmon (*Oncorhynchus keta*), Southern Resident Killer Whale (*Orcinus orca*) and Chinook salmon (*Oncorhynchus tshawytscha*).

There are other Threatened and Endangered species that migrate into Puget Sound and potentially travel near the Kitsap County shorelines, but their presence would be extremely rare. These are humpback whales (*Megaptera novaeangliae*), leatherback sea turtles (*Dermochelys coriacea*), and Steller sea lions (*Eumetopias jubatus*).

#### **8.12.1 *Marbled Murrelet***

Marbled murrelets were listed as threatened under the ESA on October 1, 1992 (FR 57[19]: 45328-45337), effective September 28, 1992<sup>13</sup>. Murrelets range from the Aleutian Archipelago in Alaska to central California. The majority of their lives are spent in the marine environment within 1.6 miles of shore, where they feed primarily on small fish such as sand lance and Pacific herring. Marbled murrelets nest in inland forests, typically in old-growth, mature stands at lower elevations. Nesting occurs from late March to late September when both parents tend a single young. Small numbers of marbled murrelets have been observed on water along the shores of Kitsap County. Survey for Marbled Murrelet are time consuming and expensive and therefore will be conducted were feasible. Every effort will be made to utilize existing survey data from state and federal sources.



### **8.12.2 Marbled Murrelet Special Management and Protection Requirements**

- **Criteria 1. Conservation Benefit**

The County will ensure that all proposed actions that could potentially affect (including beneficially affect) marbled murrelets comply with Section 7 of the Endangered Species Act. This Act requires, at a minimum, informal consultation with USFWS.

- **Criteria 2. Implementation of the Plan**

Kitsap County will determine annual funding and staff the Forest Stewardship Program. The stewardship forester will be responsible for implementation of the Integrated Forest Stewardship Policy. The forest stewardship forester may call upon environmental planners and specialists within the County, the USFWS and WDFW to assist in conservation and environmental compliance requirements. The Forest stewardship forester has the authority to implement Threatened and Endangered management and protection plans and will obtain all the necessary authorizations or approvals for proposed stewardship actions.

- **Criteria 3. Stewardship Effectiveness**

The County will do the following as needed: survey the forested areas to identify potential nest sites; monitor for marbled murrelet use and implement special protection measures, such as timing restrictions on human activities and protection of trees; record areas of use by marbled murrelets, such as foraging areas along the shore, that may overlap with human activities, and use the information to update the Integrated Forest Stewardship Policy and also provide stewardship guidance to County stewardship foresters.

### **8.12.3 Migratory Birds**

The Migratory Bird Treaty Act (MBTA) <sup>14</sup> implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds, nest, feathers or eggs is unlawful unless done pursuant to a permit issued by the USFWS.

### **8.12.4 MBTA Prohibited Acts**

Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or receive any migratory bird, part, nest, egg or product, manufactured or not.

In March, 2005, the U.S. Fish and Wildlife Service published in the Federal Register (FR 70(49):12710-12716) a final list of the bird species to which the MBTA does not apply because they are not native to the United States and have been introduced by humans everywhere they occur in the nation. The list is required by the Migratory Bird Treaty Reform Act of 2004. The actual list of migratory birds protected by the MBTA is published in the Code of Federal Regulations (Title 50, Part 10.13). When it became law in 2004, the Reform Act excluded any species from protection not specifically included on the Title 50, Part 10 list.

### **8.12.5 Bald Eagle Protection**

Bald eagles are protected federally under the Bald and Golden Eagle Protection Act (16 USC 668) <sup>15</sup> and the Migratory Bird Treaty Act (16 USC 703), and within Washington State by the Bald Eagle Protection Rules Washington Code (WAC) 232-12-292) and enabling legislation Revised Code of Washington (RCW 77.12.655)<sup>16</sup>.

Over 145 bald eagle nests representing 74 separate territories occur on or near Kitsap County forest lands. An identification number was developed and assigned to each nest territory by WDFW. This system should be maintained for reference and stewardship purposes.

The following recommendations for management of nesting bald eagles are derived from the "Bald Eagle Protection in Washington State" guidelines (WDFW 2002)<sup>17</sup> and "Washington Department of Fish & Wildlife's Priority Habitat and Species Management Recommendations, Volume IV: Birds, Bald Eagle" (WDFW 2001)<sup>18</sup>.

The following protective measures will be implemented within this primary buffer zone:

- Human activity should be avoided during the nesting season, which is considered to be from the time that adult eagles are first observed near the nest tree (usually during winter) until after fledging of young is apparent (usually late summer). If exact dates are unknown, no human activity should occur in the primary buffer zone from January through August.

If it is obvious that no nesting is taking place at a nest tree, human activity can commence within the primary buffer zone after July 1. County forest land stewardship foresters will conduct annual productivity surveys to verify nesting activity.

- Timber harvesting should not occur within the primary buffer zone. Woodcutting of downed trees in the primary buffer zone should occur prior to or after the nesting season. Standing dead trees and snags should remain so long as they do not pose a safety hazard.
- Broadcast application of chemicals should not occur within the primary buffer zone except for emergency situations such as severe insect infestation. This should only occur during non-nesting periods. Only those chemicals approved for use by the Environmental Protection Agency should be used with strict adherence to application procedures. However, approved chemical compounds that are known to be toxic to fish and/or wildlife should be avoided within the primary buffer zone.
- Vehicular traffic use on existing roads need not be altered.
- Power line and pole construction should not occur within the primary buffer zone.

A secondary zone serves as a buffer between the primary buffer zone and the areas of normal human activity. It should be developed and maintained in such a manner that the visual line of sight between all human activities and the nest are obscured. All secondary buffers are at a minimum of 400 meters radius around the nest.

The following protective measures will be implemented within this secondary buffer zone:

- Human activities within this zone should be avoided or at best minimized during the nesting period. The guidance presented above for suspected non-active nests should prevail.
- Timber harvesting and woodcutting can occur prior to and after the nesting period provided that:
  1. Total removal of all standing timber does not occur;
  2. At least 50 trees greater than 11 inches diameter at breast height (dbh) be retained per acre. The density can be altered if the forest stewardship forester deems it necessary to reduce wind throw;
  3. Standing snags and dead trees shall be retained except where an obvious safety hazard is evident.
- The use of chemical compounds, especially herbicides and pesticides shall be restricted.
- The construction of permanent buildings or other structures shall be avoided in the secondary buffer zone.
- Vehicular traffic use of existing roads need not be altered.
- Construction of new roads should be avoided. Any necessary road construction within the secondary buffer zone should not occur during the nesting season.

#### **8.12.6 General Nest Site Protection**

During nesting season, helicopters should not operate within 1000 feet of a nest and fixed winged aircraft within 500 feet of a nest. Should a nest appear to be abandoned or the nest and/or nest tree destroyed, the primary buffer zone, and if feasible, the secondary buffer zone should be maintained and managed according to the above guidelines. Eagles often reoccupy an abandoned nest or another tree within a territory even after several years of non-use of a site.

Guidelines and restrictions for new nests within an existing territory or for newly established territories are the same as those listed above. Power lines should not be constructed in the secondary buffer zone. If it is deemed absolutely necessary to construct power lines (either above ground or below ground) construction should not occur during the nesting season.

The County annually develops projects and seeks funding for natural resources stewardship issues, including habitat enhancement projects and special projects to assist in the recovery of T&E species, as circumstances require. The County forest land managing departments will consult and coordinate to ensure that proposed operations and projects consider bald eagle protection measures.

### **8.13 Cultural and Historic Site Protection**

Known archeological, historical and cultural sites will be protected during silvicultural treatments by establishing them as exclusion zones. If additional sites or artifacts are discovered during presale investigations or other field inspections, they will be evaluated and protected from stewardship activity through restriction of treatments, machinery and skidding in such areas. The activities under this plan will comply with pertinent law and regulation.

### **8.14 Aesthetics**

Aesthetic considerations in forest stewardship plans are intended to reduce visual impacts of thinning operations, site preparation and include clean low-impact logging, placement and layout of cutting areas, and buffer strips to create visual barriers, when possible, between work areas and main roads or trails.

As with any question involving beauty, the question of forest aesthetics may be viewed from several perspectives. The common public view of the County forest lands is from roads or the nearby Puget Sound. For recreational visitors, the view is from the immediate foreground. From a distance, this affords a vista of evergreen and deciduous trees, and low or no ground cover areas under a forest plantation. Overall, it presents a semi-pastoral scene that should not be construed as "natural". It is not "natural" since it is the result of considerable historical timber harvesting disturbance. However, it does create a relatively open space for recreational users, adjacent residents and passers-by.

In forest stands thinned pursuant to this Policy, it is not so much what is done to encourage structural and biological diversity, as the rate at which it is done that might upset some viewers. Up close, stewardship practices may appear somewhat harsher than from a distance. Trees cut or pushed over will appear less attractive as they turn brown and lose their leaves than they did when green and upright. Lopped, piled or windrowed slash will look better from afar than up close. This can be kept in mind when writing a prescription for forest ecosystem management practices.

### **8.15 Recreation**

Kitsap County forestlands provide significant recreational opportunities for County residents and visitors. The management of natural forested areas can contribute to the development of eco-tourism for Kitsap County. Within the constraints of County operational, silvicultural and safety requirements, the forests will be managed to sustain wildlife, create diverse forest

ecosystems, clean water, and outdoor educational and recreation opportunities. Every reasonable effort will be made to work with community-based groups to enhance the safe and appropriate recreational potential of county owned forest land. Currently, the use of motorized vehicles is restricted in County Parks.

## **9.0 COMPLIANCE WITH WASHINGTON FOREST PRACTICES ACT**

Forest lands own by the county are located in the unincorporated areas of the county and as such the Washington Department of Natural Resources regulates forest practices on these lands by means of the Forest Practices Act<sup>3</sup> established by the legislature, and the rules established by the Washington Forest Practices Board.

The Forest Practices Rules establish standards for forest practices such as timber harvest, pre-commercial thinning, road construction, fertilization, and forest chemical application (Title 222 WAC). The rules give direction on how to implement the Forest Practices Act (chapter 76.09 RCW) and Stewardship of Non-industrial Forests and Woodlands (chapter 76.13 RCW).

The rules are designed to protect public resources such as water quality and fish habitat while maintaining a viable timber industry. They are under constant review through the Forest Practices Board, an independent state agency, adopts forest practices rules. Rules involving water quality protection must be approved by the Department of Ecology prior to Forest Practices Board adoption.

### **9.1 Forest Practices Review & Application System**

Even with the intent of the Integrated Forest Stewardship Policy to do light thinning from below or restorative forestry practices, any work that is deemed pre-commercial or commercial requires a Forest Practices Application to the WA DNR and the review and approval process prior to the start of harvesting operations. All forest practices on public park lands require a SEPA review.

The forest practices application process is comprehensive and paperless using the Forest Practices Application Review System (FPARS). This system streamlines the processing of Forest Practices Applications and improves the public's ability to review proposed forest activities. The FPARS makes use of the internet, document imaging and management technology, interactive geographic information system technology, and the Oracle database system to provide for collection of Forest Practices Application information, distribution of Forest Practices Applications for regulatory and public review, risk assessment of proposed Forest Practices Application activities, and archiving of Forest Practices Applications.

#### **9.1.1 Objectives of the Forest Practices Application Review System include:**

- Providing a process and data system that is user-friendly, reliable, flexible, and consistent.

- Reducing time and costs associated with processing and distributing Forest Practices Applications.
- Improving the speed and efficiency with which Forest Practices Application information is shared among Timber-Fish-Wildlife participants and other interested parties.
- Allowing users to directly view a centralized Forest Practices Applications database.
- Improving the accuracy and timeliness of reported Forest Practices Application information.

The Forest Practices Application Review System Internet site provides all the tools required to complete a Forest Practices Application, Search for Forest Practices Applications that have been submitted to the Department of Natural Resources and track Reviewer Notification History.

#### **9.1.2 Desired Future Condition – The Forest Practices Application Worksheet**

The desired future condition (DFC) can be accessed from the DNR internet web site. From the Forest Practices Forms & Instructions web page located at: [http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp\\_for\\_ms.aspx](http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_for_ms.aspx) . This online worksheet is for the input of essential information for the Forest Practice Application.

The DFC worksheet is the tool used to input existing water type and tree stand data to determine riparian buffers and in some cases the number and size of required leave trees when thinning from below.

## **10.0 FOREST STEWARDSHIP PRACTICES**

Kitsap County forest lands extend over approximately 6,500 acres. The recent history of forest management can be surmised from the existing timber stands. The majority of existing trees are 30 to 120 years old. This indicates that most of the acreage was harvested by homesteading pioneers or under a tree farm management prescription prior to County acquisition of the property. Prior to acquisition, silvicultural treatments varied from thinning and sanitation cuts, to clear cutting. Certain lands have also been cleared of all timber for road, construction and recreational facilities projects.

Reforestation of areas harvested from the 1870s through the 1945 relied on natural seeding coinciding with favorable environmental conditions for the establishment of new stands of timber. Since Douglas-fir dominated the acreage adjacent to harvested areas, it was the primary tree available to provide seed. In climatic regimes conducive to its growth, Douglas-fir produces an abundance of seed, which can germinate on a wide variety of surface conditions. Since 1946 reforestation has required tree planting in accordance with states first forest practices law.

Naturally established stands of Douglas-fir tend to be very dense, often containing more than 2,000 stems per acre in the initial stand establishment stage. While natural stands are dominated by Douglas-fir, also present in large numbers are western red cedar, grand fir, shore pine and western hemlock. Less frequent conifers are western white pine and Pacific yew. Common broadleaved tree species are bigleaf maple, red alder, willow, madrona, wild cherry, quaking aspen and cottonwood.

## **10.1 Silviculture**

A forest stewardship system of area control will be used to foster desirable forest age classes, stand structures, species composition and to preserve and enhance legacy old growth trees and T & E species habitats. This will assure the sustainable growth of the most desirable trees while protecting water quality, endangered species, structural and biological diversity. Given the Forest Stewardship Policy and goals, existing stand delineations will be the planning base for future age classes.

### **10.1.1 *Ecological Silvicultural Systems***

Forest stewardship prescriptions implemented will provide continuous forest cover and promote long-term natural forest plant succession.

#### **10.1.2 *Systems to Be Used:***

- *Variable Density Thinning*<sup>21</sup> on even-aged stands will prescribe unthinned areas (skips) and heavy thinned areas (gaps) over 40% of the stand with 60% of being thinned to a density that gives the leave trees the best growing conditions. This will mimic insect kill, plant competition mortality and fire.
- *Variable Retention Harvest*<sup>19</sup> will be primarily applied to harvestable even-aged stands. This harvest system commingles clumps of older trees (legacy) with younger trees and improves biological diversity with the older trees serving as legacy, forming a two-tiered forest canopy. Variable retention has the ability to accelerate the development of late-succession forest characteristics benefiting wildlife and natural and planted tree seedling survival. Variable retention harvest will be utilized on small areas (< 10 acres), with 40 to 60 percent canopy retention, to mimic fire and large disturbance thereby creating early seral stage forest ecosystems.
- Non-commercial treatments where the wood is left on the ground as small or large woody debris, or to release hardwoods in areas of sensitive soils or limited access.

Young Douglas-fir trees are the least shade-tolerant of any of the other commonly associated conifers. Variable retention would favor the establishment of more shade-tolerant species and a gradual shift in stand species composition over centuries away from Douglas-fir toward more shade-tolerant species such as grand fir and western hemlock if they are present in the understory.

Steep slopes greater than 30% will not be actively managed unless warranted by special circumstances.



Future forest product market values are hard to predict. Commercial thinning of low value stands may not be economically viable during poor market periods. In such cases, non-commercial thinning will be considered.

#### **10.1.3 *Hardwood Management***

Red alder and bigleaf maple are hardwood species that are both ecologically and economically valuable. Other hardwood species such as willow, black cottonwood, Pacific madrone, wild cherry and gray birch contribute significantly to biological diversity and wildlife habitat. Stewardship practices will promote saw log quality in native red alder and bigleaf maple stands. Other minor hardwood species will be protected for their ecological and wildlife habitat functions and values.

### **10.2 Tree Growth and Forest Ecosystem Development**

#### **10.2.1 *Forest Resource Assessments***

No current, comprehensive natural resources assessment or forest inventory has been made of most Kitsap County forest lands. Forest inventory and resource mapping began in 2011 using site surveys and GIS data to map forest ecotypes. This preliminary resource data was used to determine the current tree stocking, general health and disease conditions, and habitat and wetland/riparian conditions.

Forest Vegetation Simulator (FVS)20 computer software will be used to model growth and habitat conditions over the next 50 to 250 year. Ecotype prescriptions will be made that will provide a wide range of forest stewardship practices that could be implemented. This information will then be used to produce a forest stewardship plan for each county owned forest.

#### **10.2.2 *Sustainable Forest Ecosystems***

Biodiversity and tree growth on County forest lands will improve as the stands come under ecosystem management. Until such time, allowable annual harvest cannot be determined since the remedial and developmental treatments determined through the stewardship planning process may be considered intermediate. When forest stewardship plans are revised subsequent to initial ecosystem management prescriptions including, variable density thinning, variable retention harvesting, inter-planting and planting, the stands will be in a condition favorable to the determination of a sustainable harvest.

#### **10.2.3 *Ecotype Prescription***

Ecotype prescriptions will be interdisciplinary and adaptive in approach, and with consideration of landscape/watershed conditions. This means:

- That forest stewardship practices will be holistic to include a wide array of natural resource uses, values and functions;
- That wildlife and fisheries issues/needs will be incorporated into forest stewardship planning, project criteria and operations;

- That wildlife trees, snag retention and wetlands protection are an integral part of forest stewardship and thinning operations;
- That thinning prescriptions will achieve vertical and horizontal structural diversity to foster greater opportunities for biological diversity;
- Stand prescriptions will contribute positively to enhancement of wildlife habitat and corridors, and endangered species protection, conservation and recovery;
- Wetlands will be protected not only within jurisdictional boundaries, but including hyporrheic zones. Particular protective attention will be given to palustrine wetlands;
- Adjacent land conditions will be considered in prescriptions and implementation schedules.

#### **10.2.4 Long-term Sustainability of the Forest Ecosystems**

There will be no rotation or final harvest for the Kitsap County forest lands; rather stewardship practices will focus on ecological diversity and managing for forest complexity. Adaptive management will be used to promote forest vigor, health and structural and the biological diversity of all forest resources. Forest Stewardship planning and practices will focus on intermediate silvicultural treatments, such as thinning from below. Leaving the largest, healthiest trees will promote structural diversity, and provide the highest quality wildlife habitat and water quality. It is anticipated that non-commercial and variable density thinning of Douglas fir plantation stands will promote natural biological rotation ages significantly in excess of 150 years. It is anticipated that conifer tree life cycles will average 150-400+ years. Some species such as western red cedar may have a longer cycle with ages up to 1,000 years. Helping the best young trees grow during the first 50-80 years of life will result in the best long term tree health. Over time, this approach will provide superior structural and biological diversity capable of supporting the highest mixture of forest ecosystem values and functions.

#### **10.2.5 Species to Be Grown**

Douglas-fir is the natural biological mainstay of the forest of the Puget Sound Region. Superior to other local species in strength, growth and disease resistance, Douglas-fir is the species best adapted to most county forest lands. Western red cedar is also prominent providing structural diversity and long term wildlife habitat values. Western red cedar also has significant cultural values in the Pacific Northwest. The natural life span of red cedar is greater than twice that of any other species. Because of shade tolerance and persistent foliage, red cedar is critical for horizontal and vertical structural diversity in the forests. Where Garry oak trees exist, they will be protected and preserved. Other less frequent species will be also emphasized in selecting leave trees to foster short-term and long-term biodiversity.

Natural regeneration of other native species such as alder, willow, wild cherry, hazel nut, black cottonwood, bigleaf maple and vine maple can be expected to diversify stands thinned or replanted. This will result in a species mix that will be more resistant to insect and disease attack through the synergistic effects of species and wildlife habitat diversities.

#### **10.2.6 Modeling Growth**

The Forest Vegetation Simulator (FVS) <sup>20</sup> will be utilized for modeling growth on the watershed, park/property and ecotype scales. FVS is an individual-tree, distance-independent, growth and yield model. It has been calibrated for specific geographic areas (variants) of the United States. FVS can simulate a wide range of silvicultural treatments for most major forest tree species, forest types, and stand conditions.

#### **10.2.7 Salvage**

Natural or human caused disturbances can be expected. High wind, saturated soils, ice and snow storms, and fire all play a part in the dynamics of forest ecosystems. The results of these types of disturbance, whether on the scale of the 1962 Columbus Day Storm or the 1980 eruption of Mt St. Helens, can result in whole stands of forest trees coming down and the natural process of forest succession begins anew. With catastrophic disturbance, timber salvage of merchantable material would then become part of the forest stewardship planning process. Pest infestations and diseases may also trigger salvage and additional timber cutting to reduce risk, improve safety, and meet other stewardship goals.

### **10.3 Ecotype Management**

Thinning from below and tree planting will be the dominate forest practice. Over 60 percent of the forest stands are densely stocked 2<sup>nd</sup>/3<sup>rd</sup> growth Douglas fir plantations that would benefit from thinning, both non-commercial and commercial. It is anticipated that in most years there will be thinning and tree plantings. The typical thinning prescription will specify that 80 - 150 of the best conifer trees, "Leave Trees", will be left uncut and undamaged on each acre. In addition to the specified leave trees, all small non-commercial sized trees will be left intact. This includes healthy specimens of less prevalent species such as wild cherry, willow, cottonwood, yew, quaking aspen, cascara and birch. The purposes of this approach include:

- Sustain a forest ecosystem without diminution of future diversity and productivity;
- Minimizing stand disturbance while opening up the canopy sufficiently to allow more sunlight to hit the forest floor and foster understory vegetation and structural diversity;
- Preserving and enhancing both horizontal and vertical structural diversity through retention of shade tolerant understory trees and development of grasses, forbs and woody brush species;
- Providing a population of understory and suppressed trees that are recruitment for snags in future decades;
- Providing botanical and structural diversity that will enhance forest conditions that benefit wildlife species and water quality.

Snags and downed trees play a very important role in forest ecology. Where ever possible, thinning operations will protect snags and downed large organic debris. In addition, trees deemed unique or of special interest for wildlife, such as advanced second growth specimens,

isolated relict old growth, trees with large limbs or cavities, or less prevalent species (yew, cottonwood, bigleaf maple, wild cherry, willow, etc) will be protected.

Snags and downed hollow logs, important to cavity-nesting birds and other animals, will be left uncut except when determined by the Forester if they represent a safety hazard and no alternatives are available for working around the snag. All naturally downed logs will be left on the forest floor, unless moved incidentally as part of the logging process, to provide habitat for wildlife including small mammals, salamanders, insects and other arthropods. Slash left from cutting the tops and branches off of harvested trees will be left on the forest floor to decompose naturally.

#### **10.3.1 Reforestation**

Reforestation will use a mixture of site-adapted native coniferous and deciduous species. Plantings will be conducted the first planting season after any variable retention harvest to achieve full stocking, which is defined as 303 live stems of tree species per acre. This equals planting seedlings 12 foot on center. Hand planting of seedlings will be the method used to reforest cleared areas or to fully stock deficient stands. Hand planting will be funded by the forestry program or any other source and accomplished by volunteers or service contract. Washington State Forest Practices Act (FPA) requires a minimum of 190 healthy trees remaining after the first growing season. Planted areas with less than this will be replanted.

Some planting areas may need to be cleared and scarified mechanically prior to planting. In areas of heavy grass, invasive species and/or brush competition mechanical scarification or spot application of herbicides may be used as part of the pre-planting site treatment.

Deer browsing pressure on forest seedlings is a perennial problem. In spite of recent population decline due to the "hair loss syndrome", deer numbers remain sufficient to cause considerable damage to seedlings. Repellants or protection may be applied to seedlings.

#### **10.3.2 Stocking Control**

Stocking control will be used to increase the health, vigor and tree size, and shift stand structure to achieve late succession or old-growth forest characteristics. Thinning will be tailored to the conditions of each stand. Non-commercial thinning will be a priority to minimize completion and promote forest tree vigor. Commercial thinning will consist of periodic treatments based on growth and stand condition. Thinning typically removes 25 to 30 percent of the total stand volume. Heavier thinning would only be used to create a second/third age class. Thinning will be conservative in order to reduce the risk of blow down.

#### **10.3.3 Use of Chemicals**

The only anticipated use of herbicides would be spot applications for planting trees in areas of heavy grass sod or weed infestation, or for the control of invasive exotic species.

If and when pesticides are to be used, they will be applied by trained and certified personnel in accordance with County and state rules and regulations.

#### **10.4 Harvesting Systems**

Protection of soils, leave trees and high value habitat features will be factored into determining the harvest systems used. Where-ever feasible, commercial thinning will be accomplished using draught horses. If horse logging is not feasible, the best available, modern, low-pressure harvesting equipment will be utilized.

##### **10.4.1 *Thinning***

The long term forest stewardship goal is to achieve a well stocked, healthy, complex forest ecosystem. This will involve thinning, plantings, selective cuts and, in the case of natural disaster or pest infestation, variable density thinning and variable-retention harvests. Since the bulk of the prescriptions are remedial silvicultural treatments to improve the health, vigor and structural complexity of the stands and forest as a whole, it is desirable that some work be accomplished each year.

A thinning project will leave 80 to 150 stem per acre of large vigorous, healthy trees. The actual number is a function of average tree diameter, with larger trees needing more space to thrive. Additionally, less frequent species, wildlife trees, snags and unique specimens will be marked in the woods or identified in the contract for retention in furtherance of our goal of improving biological and structural diversity. These criteria apply to all thinning and will be adjusted as needed in light of specific stand conditions.

Uniformly will not necessarily be the goal as skipped areas and gaps (small openings) create complexity. Trees marked with yellow paint and/or signs are designated as wildlife and structural diversity trees, and are to be left uncut and undamaged. Dead wildlife trees will not be included in the leave trees per acre count.

If not marked by the County Stewardship forester, leave trees shall be selected on the following basis and criteria:

- (1) Preferred coniferous species in the following order: Douglas-fir, western red cedar, grand fir, western hemlock, Pacific silver fir, western white pine and shore pine.
- (2) Deciduous trees may be selected as leave trees.
- (3) No minor hardwood species or Pacific yew trees may be cut.
- (4) Preference for coniferous trees free of defects, disease or damage.
- (5) Fastest growth as evidenced by larger relative diameter breast height (DBH), greatest height, and light colored bark with active, buff colored crevices.
- (6) Good form and straightness of the bole, and lack of forked tops.
- (7) Spacing will be random enough to provide leave trees with optimum growing space.

- (8) Dead trees, non-merchantable culls, and understory trees less than six inches diameter on the stump are not to be selected as leave trees, but are to be left uncut when possible.
- (9) Pitch bleeding western white pine and dwarf mistletoe infected western hemlock shall not be selected as leave trees. Live wildlife and structural diversity trees marked with yellow signs and/or paint may be selected as leave trees.
- (10) Healthy specimens of less abundant tree species such as madrona, dogwood, wild cherry, willow, bigleaf maple, western yew are to be left uncut and undamaged in the residual stand. Such trees do not have to comply with spacing requirements.

Trees to be cut and removed shall be selected and cut so as to avoid damage to all leave trees. Trees smaller than 6 inches stump diameter and not selected as leave trees shall be left uncut when possible. Dead trees and non-merchantable culls shall be left uncut. Trees cut along harvest unit boundaries shall be felled into the harvest area so as to contain slash and debris on the site. Stumps shall be cut as low as practicable and shall not exceed 12 inches or one DBH in height, whichever is greater. Limbs and tops are to be cut from merchantable stems and left in the woods. The contractor shall exercise care and use directional felling to minimize damage to residual trees. All felled trees shall be utilized to 6" DIB at the small end by 24 feet in length. Bucking to reduce length or diameter is not allowed. If the contractor bucks felled trees to reduce diameter or length, the spoiled merchantable portion will be scaled as though it was whole and the contractor will pay for such material at the unit prices bid. Some trees maybe marked for cutting and left specifically to create large woody debris in forest uplands and riparian areas. DecAID24, a decayed wood modeling program, will be used as a tool to help evaluate the effects of forest conditions and proposed management activities on organism that use snags and down wood.

Preferred yarding technology will be, in order of preference: draft horses or mules, low ground pressure harvesters, forwarders, skidders or excavators. When compared to the other methods, the use of draft horses minimizes the total area of soil disturbance, compaction and churning, and impacts to forest floor organic matter, large organic debris and vegetation. Small opening will be permitted, typically 1-3 acres for salvage due to insect infestation, disease, and blow down or to create complexity. Tree-planting in thinning cuts may not be necessary, because regeneration can often be achieved by natural seeding from the remaining trees and by the seeds remaining in the soil.

#### **10.4.2 *Slash Treatment***

Logging slash, the residual tops, limbs and non-merchantable logs, will be treated after harvest by lopping and scattering or piling or windrowing. Piling or windrowing of slash and undesirable brush clears the soil for reforestation and breaks slash into manageable portions for fire safety. Windrows, broken every 200 feet, achieve the same end but can also function as windbreaks for seedlings. Slash piles will decay over a period of years while slowly releasing organic nutrients back to the new cycle of growing trees. Slash from partial cuttings such as thinning will be lopped and scattered within the forest.

Concentrations of slash will be removed to a minimum of 100 feet from roads and structures.

#### **10.4.3 *Special Situations***

Stands of mature and or declining red alder on upland sites may be a priority for harvest and/or site reforestation with a mix of native conifer tree species in an effort to prevent the introduction and spread of invasive species and provide legacy trees for wildlife.

### **10.5 Access and Roads**

#### **10.5.1 *Maintenance and Erosion Control Plan***

The roads developed for historic logging and recreational uses of County forest lands are sufficient for forest stewardship activities. To implement silvicultural treatments, it may be necessary to place crushed rock on existing roads, or to develop temporary haul spurs. Haul spurs will be developed using old grades where possible. Where these do not exist or present unacceptable risks, new spurs will be created by meandering between Leave Trees. Road construction will be minimized in order to retain as much land as possible in production and to minimize land disturbance and costs. Reforestation will be up to within 6 to 10 feet of road edges to reduce unwanted invading vegetation and to fully stock the site. Full stocking will eventually function as a protector of the road corridor. Within cutting areas, road construction will be limited to temporary spurs as narrow as possible. At the conclusion of the silvicultural treatment, these temporary spurs will be water barred or otherwise modified (seeding, cross ditching, etc) to prevent erosion.

Erosion from forest access roads will be absolutely minimal since existing graded roads will be used. New forest haul roads to be constructed for silvicultural practices will be aligned to take advantage of topography so as to absolutely minimize the potential for erosion. Typically, new haul roads are bladed smooth after use and then closed for 12 to 18 months to allow native vegetation to colonize the site. Erosion control requirements are to be included in harvesting contracts, so additional funds and projects should not be required.

#### **10.5.2 *Construction and Retirement***

The State of Washington has rules affecting forest road construction, maintenance and abandonment that apply to all private, county and state lands. Forest Practices Rules (FPR) requires that all roads be constructed and maintained to minimize damage to public resources, such as water quality and salmon habitat. State FPR best management practices address or include:

- Minimizing new construction
- Providing for fish passage
- Minimizing road runoff
- Preventing erosion
- Protecting stream bank stability
- Maintaining wetland function



A Road Maintenance and Abandonment Plan (RMAP)<sup>21</sup> are required by FPR and consist of a forest road inventory and a schedule of any needed road work. This inventory and schedule is necessary to fill out a "Checklist RMAP" form required of small forest landowners with more than 80 acres of forest land and annually harvesting 2 million board feet of timber or less per year. The checklist is then submitted to the Washington DNR for approval.

#### **10.6 Special Forest Products**

Forest plant communities in Kitsap County are rich in understory plants. The harvesting, processing and selling of these plants and plant parts, when properly managed, does not diminish the understory vegetation. Properly managed, only the desirable branches or shoots are removed, resulting in improved plant health and vigor. Products include mushrooms, edible berries, cascara bark, landscape transplants, mosses, lichens and floral greens. Leases for any or all of these special forest products would provide some annual review while providing added property patrols that protection against vandalism and garbage dumping. The Integrated Forest Land Stewardship Plan shall provide for the limited harvest of special forest products, consistent with other plan goals, to generate revenue to support the operations and maintenance of Park Stewardship projects.

### **11.0 FOREST PROTECTION**

#### **11.1 Forest Health**

##### **11.1.1 *Insect and Disease Control***

Insect and disease problems have not reached epidemic proportions on County forest lands in recent years. The following specific forest pests are the most frequently encountered and are listed along with the prescribed control method:

- Tent caterpillars are present in broadleaved trees and cause considerable defoliation. Whole trees may be defoliated, causing an unsightly mess. Alder is seldom killed by tent caterpillars, and the investment in forest control measures, notably spraying, is not warranted.
- Root rot is a persistent problem, especially on some of the heavier soils. Often, infected trees also fall prey to bark beetles, which speed loss of foliage and mortality and may offer the first outward sign of fungal infection. A great deal of control can be accomplished by clear cutting the patches where root rot is evident, perhaps to include tipping over the stumps, and planting back to a different species.
- Douglas-fir bark beetle is frequently seen as a secondary invader of trees weakened by old age or disease. This insect has the potential for epidemic attack, but proper

forest sanitation including thinning and harvest of over mature or diseased trees should keep it under control if it becomes a problem. In such cases, patch cutting will be used to salvage infested areas, with reforestation following.

- Douglas-fir tussock moth has built into an epidemic in southwest Washington, but has not yet been identified on County lands. If this defoliating insect does become a problem, control will be difficult. "BT", a biologic control agent may be used for control. Any pesticide application will have to be thoroughly reviewed and approved prior to use.
- White pine blister rust, an introduced disease, has nearly eliminated white pine from serious management at this time. White pine is a minor species on County forest lands. The use of rust-resistant strains may allow future planting of western white pine.
- White pocket rot is a fairly common pathogen in Douglas-fir and is occasionally seen in young second growth. Patch cutting harvest of identifiably infested trees plus a surrounding transition area is the best control.
- White heart rot is a very destructive disease of alder. This fungus is responsible for the slow destruction of alder stands after the age of 40 or 50 years. The best control is the harvest of mature alder before the fungal losses take their toll. Particularly near fences, power lines, etc and in recreation areas where pedestrians hunt or walk, risk alder should be removed.
- Gypsy moth is a recently introduced forest pest that has shown great capacity for destruction and sudden epidemic growth in Washington. Both the European and Asian gypsy moths are of concern. They have not been detected on County forest lands. The County will continue to cooperate with state and federal agencies conducting surveys for the moths.
- Dwarf mistletoes are present on County forest lands. Infected patches will be removed and replanted to a different species or mix of species.

#### **11.1.2 Invasive Species**

Invasive plant species including legally categorized Noxious Weeds will be a keen focus for eradication or control. Many invasive plants need moderate to full sunlight to thrive so forest openings, road right-of-ways and trails will be a primary focus. Invasive plant such as English ivy that thrives in less sunlight will be a primary target for control. Riparian areas will be monitored for knotweed and other noxious weeds that pose a threat to riparian fish and wildlife habitat and control efforts undertake as appropriate and feasible. Scotch broom control will be a priority along roads; old landing and areas were reforestation was less than successful.

**11.1.3 Fire Suppression**

Historically, forest fires have occurred on subject parcels prior to County ownership. Forest fire detection would be by observation from County or adjacent lands. Given the controls on recreation, the most common source of ignition, human activity, is limited to developed and recreational areas. Suppression of wildfire would probably be accomplished by a combination of local, County and state fire departments. Timber harvest contracts require spark arrestors, fire tools, fire watchman and suppression and reporting of any fire on the sale area. During periods of high fire danger, additional equipment such as a tank truck or trailer with pump and hose is also required. Logging activity restrictions and shutdowns are at the discretion of the County, or will follow Washington DNR, whichever is more restrictive. Service contracts for silvicultural treatments will also contain fire prevention and suppression requirements, although this is not the same threat because of the lack of machinery in most cases. Motorized recreation vehicles are generally banned in Kitsap County Parks.

**11.1.4 Wildlife Damage Control**

Deer browsing the growing tips of young Douglas-fir, western red cedar and other conifers can cause reduced height growth and in extreme cases may stop height growth completely until the size of the deer herd is reduced by harvest, a hard winter or disease. Beaver and black bear are present and can cause sever damage to both hardwood and conifer trees and brush species. Wildlife damage will be accepted as a practical and natural occurrence in a healthy forest ecosystem. Seedling protectors maybe used to prevent heavy browsing.

## **11.2 Environmental Safeguards**

### **11.2.1 *Project Review Procedure***

The land administering departments will review all forestland projects during the planning stage to assure compliance and integration with this IFSP. This ensures that the project will be in compliance with all environmental laws and regulations, provides feedback to the program stewardship foresters regarding costs and length of time to receive permits, and provides an additional design review check to help catch conflicts or other issues that were overlooked by the program stewardship foresters. All forest practices on public park lands require a SEPA review.

### **11.2.2 *Pesticides***

Currently, the only anticipated use of herbicides would be spot applications for planting trees in areas of heavy grass sod or weed infestation. If and when pesticides are used, they will be applied by trained and certified personnel in accordance with County and state rules and regulations. Cultural control techniques will be first priority for the control of weeds and invasive plants.

### **11.2.3 *Erosion Control***

Erosion in forest areas has not been a problem because of the minimal disturbance to soils, the good vegetative cover and infrequency of silvicultural treatments. Natural development of the forest, timing of silvicultural treatments, choices of low-impact technologies and improving understory vegetation will protect the soils. Skid trails on slopes steeper than 10% will be water-barred to prevent gullyng. Since light thinning is going to be the primary practice, wind erosion should not be a problem due to strong, consistent vegetative cover. The risk of erosion during the exposed period of logging and early regeneration is greatly reduced by limiting the size of cuts, careful planning of cutting unit boundaries, the use of uncut buffer strips, early planting or seeding and the use of water bars on roads and skid trails steeper than 10 percent.

Erosion from forest access roads will be absolutely minimal since existing graded roads will be used. New forest haul roads to be constructed for silvicultural practices will be aligned to take advantage of topography so as to absolutely minimize the potential for erosion. Typically, new haul roads are bladed smooth after use and then closed for 12 to 18 months to allow native vegetation to colonize the site. Erosion control requirements are included in timber sale contracts, so additional funds and projects should not be required.

### **11.2.4 *Riparian Protection Measures for Typed Waters***

The restoration and enhancement of forested buffers along existing watercourses will be a direct benefit to wildlife, most importantly salmon. Equipment exclusion, directional falling and other techniques will be employed to protect riparian areas. Forest Practice Rules (3) will be applied to determine the riparian buffers for all thinning operations conducted on county owned forest land.

#### **11.2.5 Wetlands Protection Measures**

Wetlands will be protected in accordance with applicable law and regulation. The erosion control and buffer strip requirements included in the IFSP and in timber and forestry services contracts will protect wetlands from damage by forestry operations. Forest Practice Rules (3) will be applied to determine the riparian buffers for all thinning operations conducted on county owned forest land.

#### **11.2.6 Endangered Species Protection**

Forestry operations will comply with law, regulation and other stewardship plans for the protection of T&E species. Historically, this has best been accomplished by avoiding the nexus of T&E species and forestry practices through timing such work to be done in off seasons.

#### **11.2.7 Wildlife Habitat**

The silvicultural methods used for reforestation, timber stand improvement and harvests are intended to be supportive of wildlife. Dense timber stands shade out the understory plants that provide food and cover for wildlife. Thinning and reforestation will provide young forest stands with a wide diversity of grass, forbs, woody shrubs and trees for food and cover. This will encourage a diversity of animal species. Treatments to improve the stands will help open up the forest canopy to allow sunlight to reach the forest floor so that the understory will be stimulated, developed and perpetuated as foraging, nesting and thermal cover for all wildlife species. Timber harvest might temporarily displace wildlife from the operation area to adjacent undisturbed forest while operations are underway. Quite frequently, browsing and avian species will visit thinning areas during nonworking hours to take advantage of the foliage and insects available. Following patch sanitation salvage clear-cuts, as the area seeds or sprouts to brush, weeds and young trees, the rapidly growing young forest and decaying logging residues will provide increased forage for deer, granivores, and insectivores. Consequently, predators will benefit. Some species preferring closed canopy habitat will be displaced until the young trees reestablish a closed canopy.

### **11.3 Hazard Tree Assessment and Mitigation**

In the interest of public safety, hazard tree assessments will be made of all Kitsap County forest lands in areas of high risk for the public. High risk areas include the forest edges near developments and facilities including but not limited to: trails heads; trails, parking lots, picnic areas, camp grounds, recreational fields, buildings and areas adjacent to private property. Trees and or groups of trees will be removed if dead, dying or have defects that pose an unreasonably high risk to the public. If disease trees are removed the site will be reforested with appropriate native tree species that have a natural resistance to the identified condition. If for any reason additional cavity nesting habitat is needed, only live, defect trees will be topped to create wildlife snags.

#### **11.4 Protecting Uncommon and Sensitive Resources**

Special management or protection is a term that originates in the definition of Occupied Critical Habitat (OCH) in Section 3 of the Endangered Species Act and applies to those areas officially designated as Critical Habitat. For OCH, one first determines whether the area contains the physical and biological features essential to the conservation of the species and their area has or needs additional special management or protection. Additional special management is not required if adequate management or protection is already in place. If unoccupied areas were determined to be essential to the conservation of the species, the County would include such unoccupied areas only where special management or protection is required.

Adequate special management or protection is provided by a legally operative plan that addresses the maintenance and improvement of the primary constituent elements important to the species and manages for the long-term conservation of the species. The following three criteria will be used to determine if a plan provides adequate special management or protection:

- *Criteria 1. Conservation Benefit*

The plan provides a conservation benefit to the species. The cumulative benefits of the stewardship activities identified in a stewardship plan, for the length of the plan, must maintain or provide for an increase in a species' population, or the enhancement or restoration of its habitat within the area covered by the plan, i.e., those areas deemed essential to the conservation of the species. A conservation benefit may result from reducing fragmentation of habitat, maintaining or increasing populations, insuring against catastrophic events, enhancing and restoring habitats, buffering protected areas, or testing and implementing new conservation strategies.

- *Criteria 2. Implementation of the Plan*

Entities charged with plan implementation are to be capable of accomplishing the objectives of the stewardship plan and have adequate funding for the stewardship plan. They have the authority to implement the plan and have obtained all the necessary authorizations or approvals. The plan provides a conservation effort implementation schedule, including completion dates.

- *Criteria 3. Stewardship Effectiveness*

The following criteria will be considered when determining the effectiveness of the conservation effort. The plan includes:

1. Biological goals (broad guiding principles for the program) and objectives (measurable targets for achieving the goals);
2. Quantifiable, scientifically valid parameters that will demonstrate achievement of objectives, and standards for these parameters by which progress will be measured, are identified;
3. Provisions for monitoring and, where appropriate, adaptive management;

4. Provisions for reporting progress on implementation based on compliance with the implementation schedule, and effectiveness based on evaluation of quantifiable parameters of the conservation effort. This goal will be accomplished at the annual IFSP review and update in coordination with the appropriate federal and state agencies; and
5. Duration sufficient to implement the plan and achieve the benefits of its goals and objectives.

## **12.0 FOREST STEWARDSHIP PLAN TIMELINE**

Stewardship plans for Kitsap County forests will use 15-year timelines. This time period is long enough to implement stewardship activities/projects and monitor and report progress and in some cases allow time to secure funding for major ecological restoration projects. At the end of the first ten years, the plan will be reviewed and updated or rewritten, as appropriate. Beyond the County-wide plan, there are approximately 25 distinct Forest Stewardship plans that need to be prepared for existing Kitsap County Parks.

## **13.0 CERTIFICATION OF COUNTY FOREST LANDS**

Forest certification is a system for identifying well-managed forestland. Since forestland owned by Kitsap County is not yet under management, certification at this stage is a future goal.

There are host of non-profit, third party, on-the ground, forest certification programs in the United States with the Forest Stewardship Council (FSC), the Sustainable Forestry Initiative (SFI), and the American Tree Farm System (ATFS) as leading programs. Numerous studies have been conducted of forest certification programs examining standards, oversight, certification processes, chain-of-custody, demand for certified products and credibility. Hansen, Washburn and Finley 2004 (Understanding Forest Certification) concluded "it is still unclear how certification will develop or the impact it may have on markets." The impact appears to be modest and the payoff for those who produce small quantities of forest products is less clear. The costs of certification verse benefits are better for the larger forest timber producers. Depending on the size and location of timber holdings, initial certification cost can be two to five dollars per acre with annual audit cost of between 20 to 75 cents per acre for FSC certification.

The Kitsap County Forest Stewardship policy and the individual forest stewardship planning process are consistent with standards and practices that will lead to forest certification. It is an expectation that forest stewardship practices will meet or exceed certification standards.



## **14.0 HUMAN RESOURCES**

### **14.1 Personnel and Management Structure**

#### **14.1.1 *Kitsap County Stewardship Forester***

A professional forester shall be hired to do all forest stewardship planning, resource inventory, mark project boundaries, wetlands and riparian buffers, prepare and administer contracts, and coordinate forest stewardship practices for commercial and non-commercial thinning, plantings and other best management practices as needed. This position will support County departments with forestlands, public involvement and education, public relations, and the recruitment, training and activities of stewardship volunteers. The societal elements of the Forest Stewardship Program are critical to the success, especially in the beginning. Therefore the manager needs to be someone with strong social skills.

#### **14.1.2 *Park Stewards (Volunteers)***

Park Stewards will be recruited for the ranks of existing public and private volunteer organizations and the general public. These volunteers will have the opportunity to be technically trained and participate in the natural resource inventory, stewardship planning, public outreach and educational components of the Kitsap County Forest Stewardship Program.

### **14.2 Contractor Selection**

Contracts for stewardship practices requiring a high degree of experience and specialized skills, such as non-commercial and commercial thinning, road maintenance and construction, and fish and wildlife habitat enhancements, will be contracted. Contractors that have specialized in variable density thinning and forest ecosystem management practices will have preference. Contractors will submit bids per bid specification, references and proof of all contracting licensing, insurance and bonding.

## **15.0 POLICIES AND PROCEDURES**

While ecological and social goals are primary, forest ecosystem prescriptions will seek to achieve a sustainable level of revenue necessary for management without compromising overall social and ecological objectives. The Kitsap County Forest Stewardship Program and forestry stewardship funds are to be maintained in a Forest Stewardship Special Revenue Fund. Funds will be generated by receipts from the sales of forest products, grants, donations and other funding sources identified or restricted for forest stewardship and the public uses of those lands. Thus, after initial establishment of the Program, all forest stewardship services are to be provided on a self supporting basis. This includes professional forest stewardship services, forestry projects, consultations, natural resources education, and, when requested by the County Commissioners, representation with outside natural resource conservation groups and the media.

The Program will operate as a financially self-sustaining activity by generating revenue from selective thinning and harvest of natural materials to cover expenses. The County may lend startup funds to be repaid from future revenues. The Program is not intended to generate revenue for other County purposes.

The Forest Stewardship Program shall prepare a multi-year management and business plan with annual expected revenues and expenditures for each year. It is not expected that revenues or expenditures will be equal and level from year-to-year. The business plan shall be prepared with the advice of the Forest Stewardship Advisory Committee and submitted to the County Park Director for review and presentation as part of the annual budget.

The Kitsap County Forest Stewardship Program will be administered in consonance with applicable law and regulation. Planning, budgeting, fiscal management, reporting and implementation will be in accordance with County requirements.

The County is committed to conserving and managing soil, water, forests, fish, wildlife and outdoor recreation resources. The primary purposes in managing these natural resources lands is long term sustainment of extensive forest cover; maximization of multiple land use benefits, and fulfillment of land stewardship responsibilities. In order to achieve these purposes, this IFSP will: be economically self-sustaining, conservation and stewardship of quality forests and wood fiber, fish and wildlife habitats, endangered species conservation and recovery, watershed/wetlands protection, outdoor recreation and education opportunities, and the development and maintenance of a desirable structural diversity and biological balance in the forest consistent with proven scientific practices. This includes protection of endangered species habitats, development of commercial forest resources, and the management of commercial forest resources on a sustainable basis, reduction of maintenance costs through forest stewardship, and outdoor education and recreation opportunities that are consistent with the natural resources upon which they are based.

### **15.1 Implementation**

The Kitsap County Board of Commissioners will create the Forest Stewardship Program through adoption of this Policy and additional ordinances or resolutions. The County will create the position of County Stewardship Forester who will be located in the Parks and Recreation Department. The Stewardship Forester will provide professional forestry expertise to manage and develop the forest stewardship plans for the long term benefit and conservation of county owned forest resource lands.

### **15.2 Responsibilities**

Responsibility for implementation of this Plan flows from the County Commissioners to the Stewardship Forester via the Parks and Recreation and Public Works Departments. The Stewardship Forester shall:

- ensure that forest lands are properly managed
- provide general guidance to ensure that this Plan is utilized by Departments

- ensure that Departments comply with County and State environmental planning documentation preparation, revision, and implementation
- ensure the programming of resources necessary to maintain and implement this Plan
- ensure appropriate budgeting and financial accounting and auditing procedures and policies are established
- provide overall program management oversight for all forest land program elements
- participate in the development and revision of plans
- ensure that forest land stewardship complies with applicable laws, regulations and policies
- coordinate Kitsap County forest land stewardship with Tribes and appropriate State agencies

### **15.3 Schedule for Review**

This Integrated Forest Stewardship Program will be reviewed annually and updated as necessary on a 5-year schedule. The greatest needs in forestry on County lands lie in the thinning of dense second/third growth Douglas fir plantation to encourage development of understory vegetation and to enhance structural diversity; conservation of relict old growth trees; reforestation of open areas; restoration of the original coniferous forest cover to areas historically cleared; and enhancement of existing forest stands impacted by historical operations and uses. This plan will provide stand by stand prescriptions tailored to achieve these goals. Thus, the plan will need revision when: (1) the prescriptions have been fully implemented and regulated forest stands are achieved; (2) when sufficient time has passed and, in the absence of plan implementation, natural processes have so changed the forest conditions that the plan no longer reflects existing conditions; or (3) when sufficient land use changes have occurred as a result of County operations requirements that the plan is outdated. Given recent types and intensities of forest land uses, it is anticipated that annual reviews and a 5-year update schedule are appropriate.

### **16.0 REFERENCES CITED**

- (1) Creating Kitsap County "Water as a Resource Policy, Kitsap County Resolution 109-2009, June 2009.
- (2) Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended -- Public Law 93-205, approved December 28, 1973, repealed the Endangered Species Conservation Act of December 5, 1969 (P.L. 91-135, 83 Stat. 275). The 1969 Act had amended the Endangered Species Preservation Act of October 15, 1966 (P.L. 89-669, 80 Stat. 92
- (3) The Washington State Forest Practices Act, adopted in 1974, found in Ch. 76.09, RCW.
- (4) Soil Survey of Kitsap County Area, Washington, USDA NRCS, issued September 1980.
- (5) Washington State Legislature Chapter 36.70A Revised Code of Washington, Growth management — planning by selected counties and cities, 1990.
- (6) Kitsap County Ordinance Regarding Growth Management Revisions to Title 19 -Critical Areas, 2005.

- (7) Kitsap County Department of Community Development Website [http://www.kitsapgov.com/dcd/lu\\_env/cao/cao.htm](http://www.kitsapgov.com/dcd/lu_env/cao/cao.htm), December 2010.
- (8) Kitsap County Zoning Ordinance, Ord. 415 (2008) § 3, 2008; Ord. 216 (1998) § 4 (part), 1998.
- (9) Washington Department of Natural Resources, Washington Heritage Program, Puget Trough Ecoregion GIS Database, 2005.
- (10) Franklin, Jerry F.; Dryness, C.T., Natural Vegetation of Oregon and Washington, General Technical Report PNW-GTR-008 USDA Forest Service PNW Research Station, Portland, Oregon, 1973.
- (11) Hanley, Donald P.; Baumgartner David M., Forest Ecology in Washington, EB 1943, WSU Extension, Pullman, WA, 2002.
- (12) US EPA Clean Water Act, Executive Order 11990, "Protection of Wetlands", dated May 24, 1977.
- (13) Marbled Murrelet 5-Year Review Process: Overview, US Fish and Wildlife Service, August 2004.
- (14) Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) as amended by: Chapter 634; June 20, 1936; 49 Stat. 1556; P.L. 86-732; September 8, 1960; 74 Stat. 866; P.L. 90-578; October 17, 1968; 82 Stat. 1118; P.L. 91-135; December 5, 1969; 83 Stat. 282; P.L. 93-300; June 1, 1974; 88 Stat. 190; P.L. 95-616; November 8, 1978; 92 Stat. 3111; P.L. 99-645; November 10, 1986; 100 Stat. 3590 and P.L. 105-312; October 30, 1998; 112 Stat. 2956.
- (15) Bald Eagle Protection Act, 16 U.S.C. §§ 668-668d, June 8, 1940, as amended 1959, 1962, 1972, and 1978.
- (16) Washington State RCW 77.12.655, Habitat buffer zones for bald eagles — Rules, 2000 c 107 § 228; 1990 c 84 § 3; 1984 c 239 § 3.
- (17) Bald Eagle Protection Guidelines, Washington Department of Fish and Wildlife, November 2005.
- (18) Management Recommendations for Washington's Priority Species – Vol. IV: Birds, Washington Department of Fish & Wildlife, May 2004.
- (19) Hanley, Donald P.; Baumgartner, David M., Silviculture for Washington Family Forests, EB 2000, WSU Extension, December 2005.
- (20) Forest Vegetation Simulator (FVS), USDA Forest Service, Forest Management Center, Denver Colorado, <http://www.fs.fed.us/fmcs/fvs/whatis/index.shtml>, 2002.
- (21) Chapter 222-24 WAC ROAD CONSTRUCTION AND MAINTENANCE, 2001.
- (22) Franklin, Jerry F., Mitchell, Robert J., Palik, Brain J., Natural Disturbance and Stand Development Principles for Ecological Forestry, USDA Forest Service General Technical Report NRS-19, November 2007.
- (23) Churchill, Derek, Kitsap County Forest Policy Feasibility Assessment and Technical Review, November 2011.
- (24) Kim Mellen-McLean, Kim, et. al., Decayed Wood Advisor (DecAID) USDA Forest Service and US Fish & Wildlife, <http://www.fs.fed.us/r6/nr/wildlife/decaid/>, January 2012

17.0 APPENDIXES

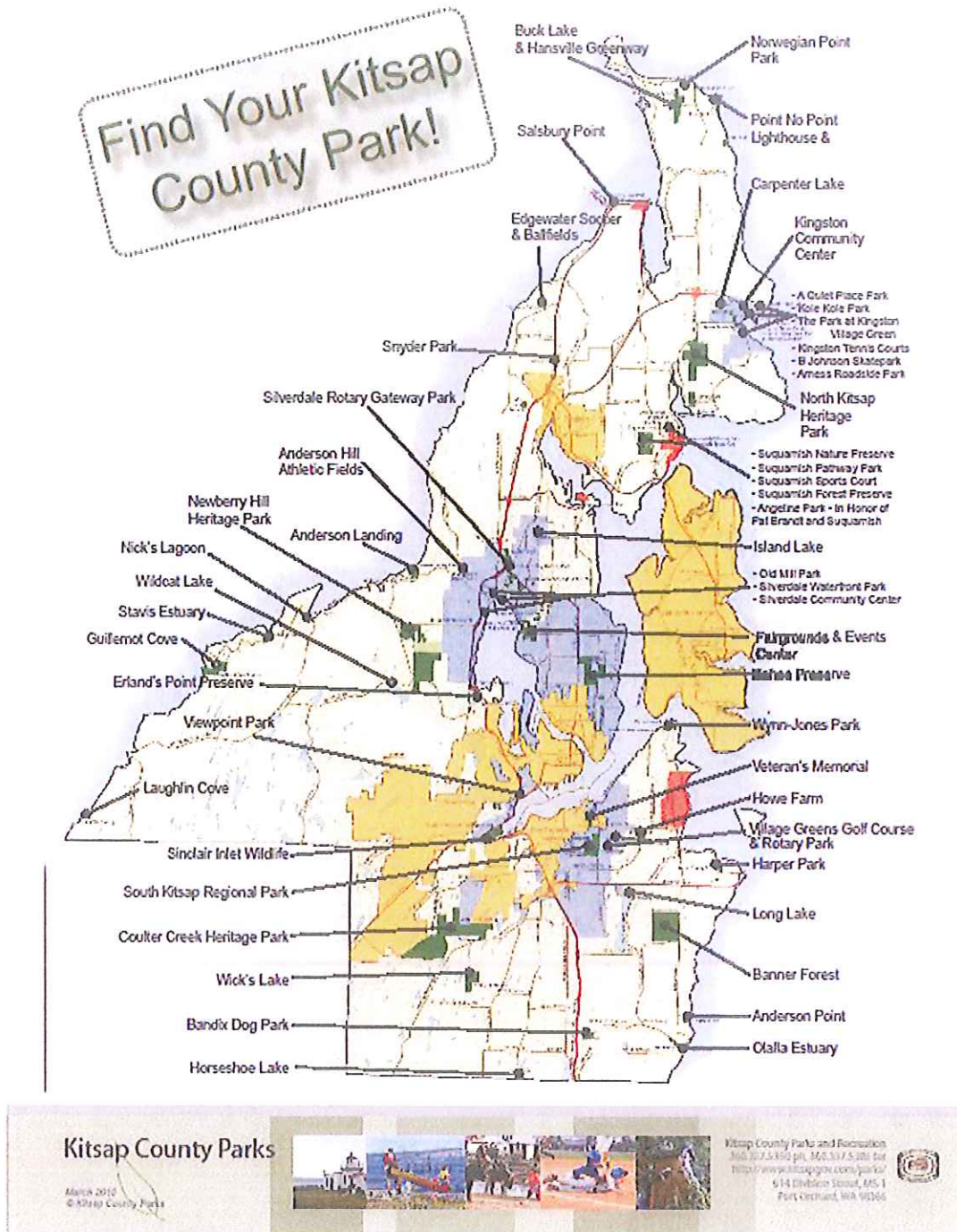
17.1 Potential Kitsap County Parks for Forest Ecosystem Management

PARK PROPERTY NAME	PARCEL NUMBER	ACRES Potential	REGION	UGA
A Quiet Place Park	4325-000-030-0202	9	north	Kingston
Anderson Landing Preserve	132501-2-037-1006, etc.	68	central	
Anderson Point	342302-3-001-2000, etc.	66	south	
Bandix Dog Park	012201-1-030-2000	10	south	
Banner Forest	162302-1-005-2002	635	south	
Barker Creek	222501-1-061-2004, etc.	16	central	
Buck Lake	212802-2-008-2005, etc.	160	north	
Calvinwood	172301-4-001-2000, etc.	118	south	
Coulter Creek Heritage Park	162301-3-031-2007, etc.	1195	south	
Guillemot Cove Reserve	342502-4-007-1002, etc.	184	central	
Hansville Greenway	162802-3-006-2002, etc.	91	north	
Harper Park	4823-000-001-0006, etc.	60	south	
Howe Farm	322402-1-019-2005, etc.	83	south	Port Orchard
Illahee Preserve	012401-1-162-2008, etc.	353	north	Bremerton
Indianola-Bloedel	092602-4-001-2006, etc.	81	north	
Kingston Nike Site	262702-3-005-2002	15	north	Kingston
Laughlin Cove	362403-2-005-1006	20	central	
Newberry Hill	252501-2-028-1003, etc.	1100	central	Silverdale
Nick's Lagoon	202501-3-015-1001, etc.	20	central	
North Kitsap Heritage Park	032602-2-004-2003, etc.	443	north	
Pilot Point		35	north	
South Kitsap Regional Park	362401-1-012-2009, etc.	100	south	Port Orchard
Suquamish Forest Preserve	202602-2-001-2005	200	north	
Wicks Lake	292301-1-014-2007, etc.	100	south	
Wynn-Jones Park/Watagua Beach	092402-1-031-2008, etc.	25	south	



17.2 D: MAPS

17.2.1 Map - 1 Location of Kitsap County Forested Park Lands.

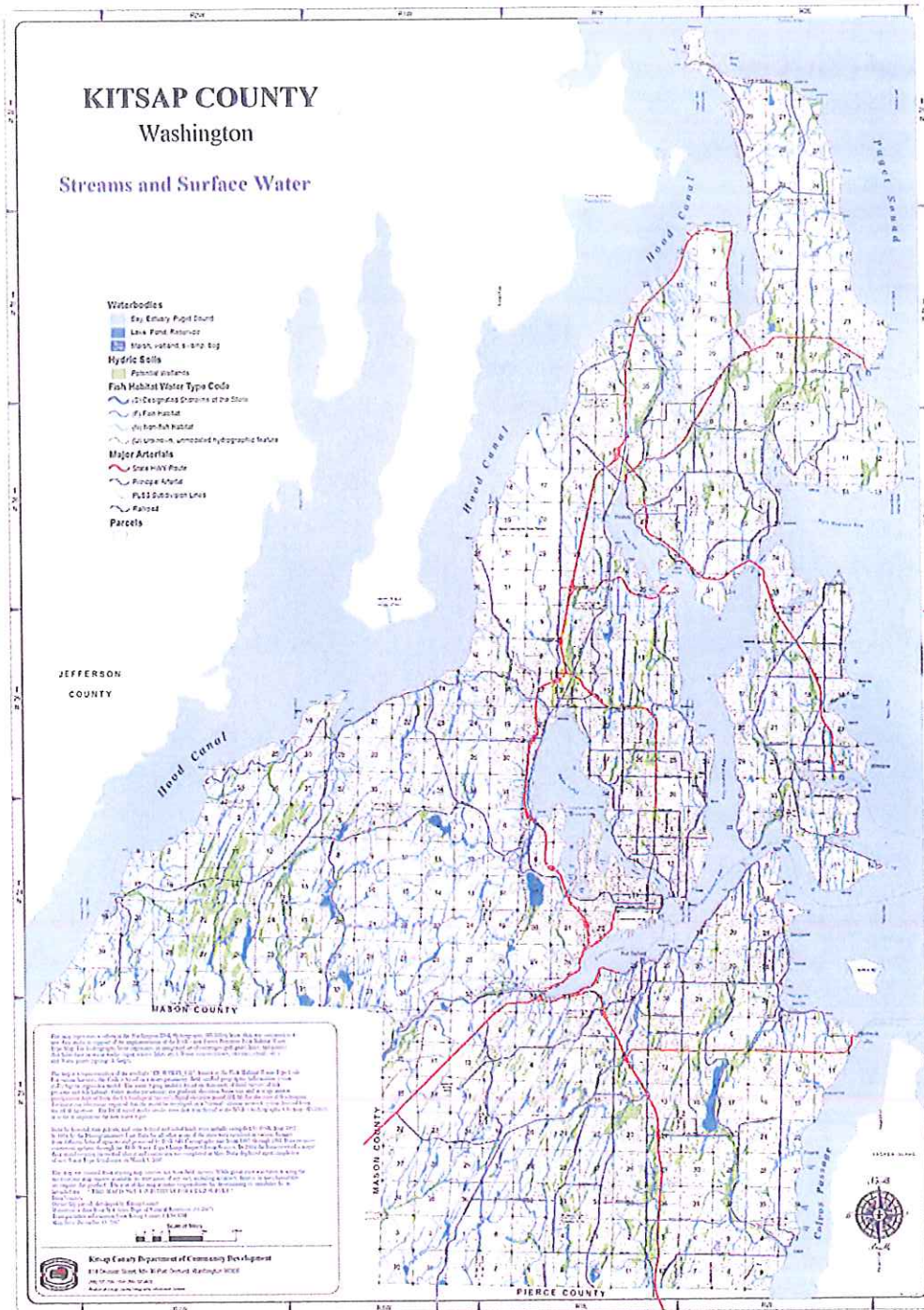






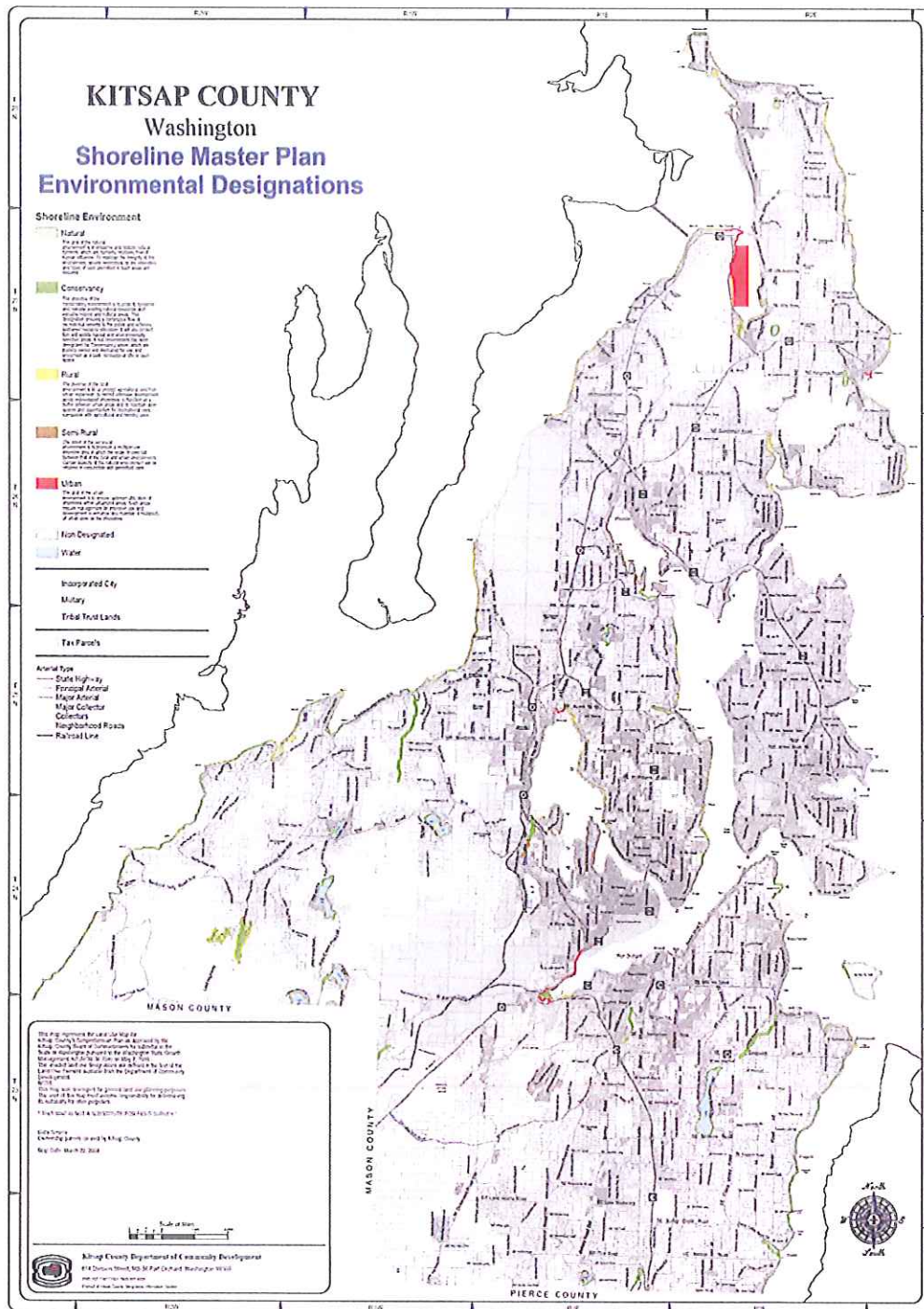


17.2.4 Map 5 - 3 Streams and Surface Water



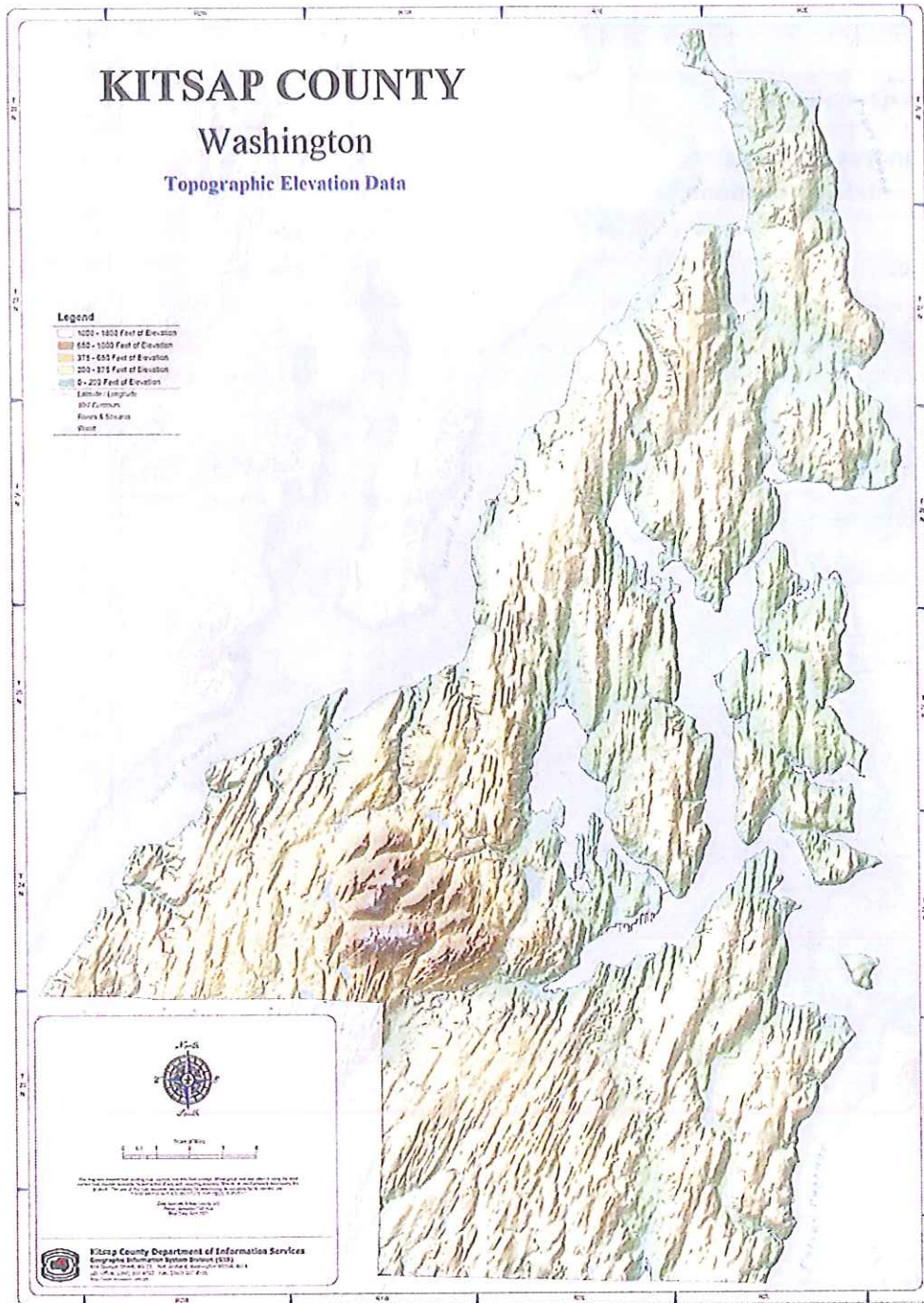


17.2.5 Map 5 - 4 Shoreline Master Plan Environmental Designations



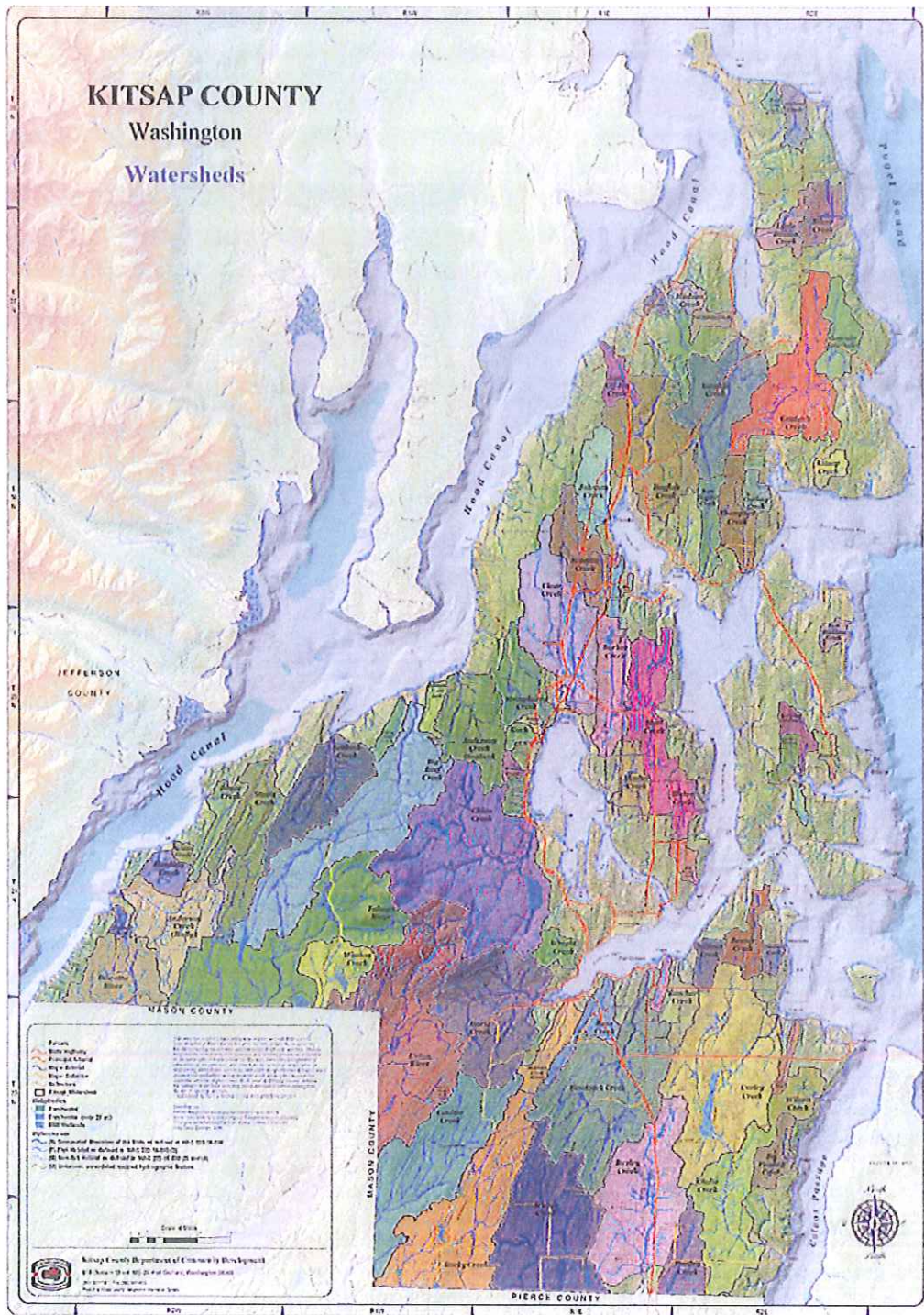
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17.2.6 Map 5 - 5 Topography





17.2.7 Map 5 - 6 Watersheds





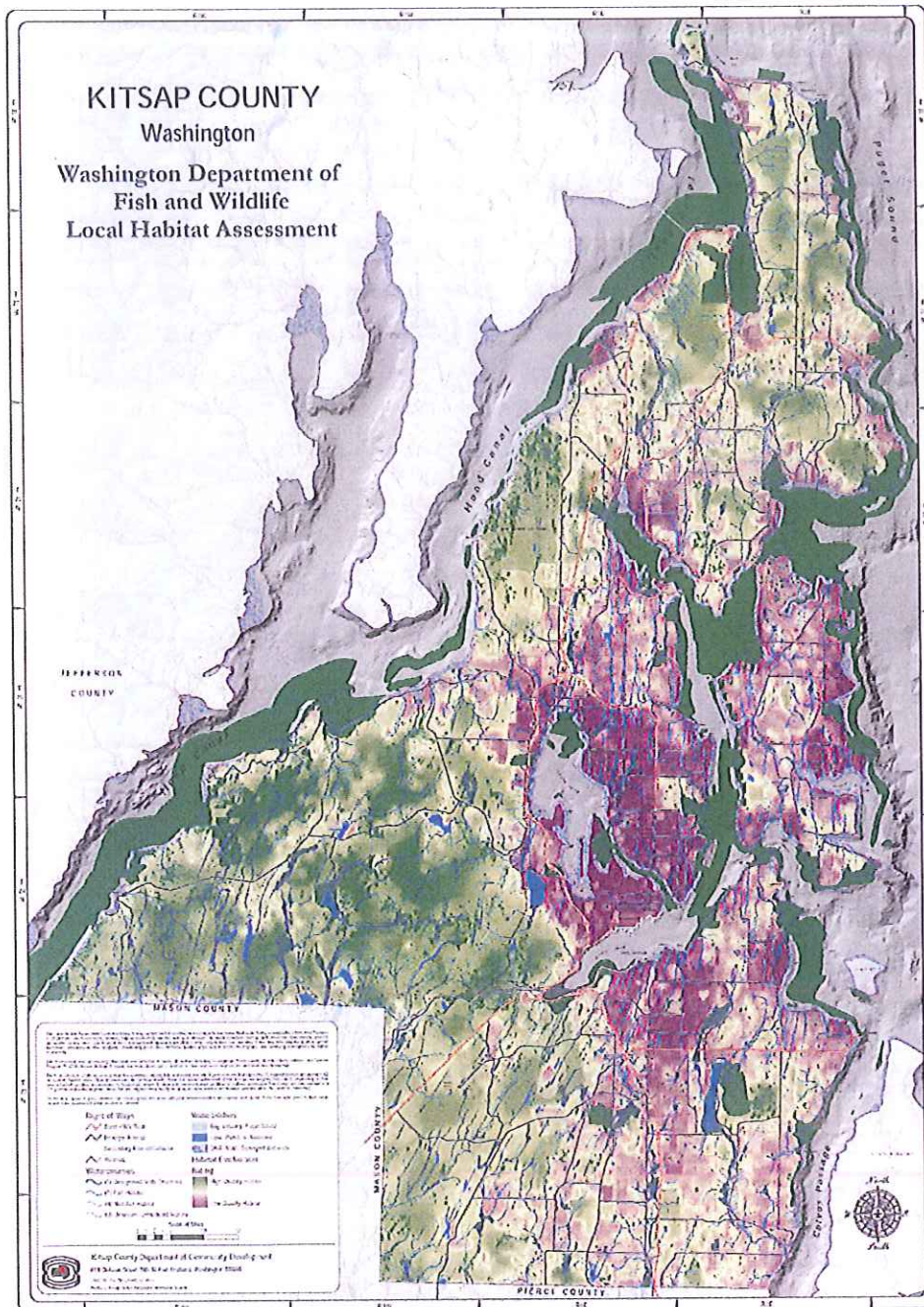








17.2.10 Map 5 - 9 Wildlife Habitat Assessment



April 23, 2012 by Arno Bergstrom



**Kitsap County Integrated Forest Stewardship Policy  
Public Comments Matrix**

This document is intended to recognize and respond to written comment letters and stakeholder comments received during the Kitsap County Parks Department and Board of County Commissioner process on Integrated Forest Stewardship Policy and Program Implementation Plan. The Policy and Plan was released for public comment on July, 2012. The Parks Advisory Board will be considering the proposed Policy and Implementation Plan at its regularly scheduled board meeting on September 19, 2012. Based upon the public comment and the subsequent recommendation of the Park Advisory Board, the Policy is scheduled to come before the Board of Commissioners for a public hearing on September 24, 2012. Comment letters were received from government agencies, as well as interest groups and local citizens. Noted below is a brief summary table identifying comments received by September 5, 2012 as well as staff responses. These comments cover a 19 month period, February 1, 2011 through September 5, 2012. This table should not replace the use of the actual comments in their entirety.

No	Comment Issue	Commenter	Public Comments	Staff Response
1	Environmental	Robert Schramek	Better explanations as to why clear-cutting harvests is necessary when trying to prevent the spread of diseases.	Noted, this will be addressed within each park plan.
2	Environmental	Robert Schramek	Thorough search by a qualified forest pathologist and current and incipient infections be noted and mapped.	Noted, will be achieved through the field assessments and planning process.
3	County Parks	Great Peninsula Conservancy	Identifying a subset of county parks, which are truly forest lands, as the basis for the policy. At a minimum this would include the County's large, heritage parks and possible future additions.	Noted.
4	Public Use	Great Peninsula Conservancy	Policy needs to identify public use of County-owned forest lands that is appropriate to the site, passive in nature, and not negatively impact the site's natural resources.	Beyond existing county-wide ordinances for the public use of parks, each park continues to work on developing appropriate recreational uses.
5	Socio-Economic	Great Peninsula Conservancy	Policy should recognize that Kitsap County still retains privately-owned commercial forest lands, which contribute to our rural landscape, environmental quality, public recreation, and economy.	Noted.
6	Water Sources	Great Peninsula Conservancy	Water Resources – Recommend this section be renamed 'wetlands and water resources' and should begin with descriptive summary of the types of wetlands found on County forest/park lands.	Noted with changes in policy; 8.10 - Wetland and Riparian Areas. Each park plan will provide specific information on the types of wetlands and stream riparian areas.
7	Fish and Wildlife Habitat	Great Peninsula Conservancy	Fish and Wildlife Habitat – Recommend moving last paragraph of this section to the beginning of the section. Section also references 'construction' in several places and should be made clear what type of construction might be considered for County park lands. Livestock is also referenced—under what conditions/situations are livestock considered appropriate for County-owned forest/park lands. Section also indicates that foot traffic will be excluded from wetlands and buffers—will boardwalks or wildlife viewing platforms be allowed in or adjacent to wetlands?	Noted with changes to those sections.

No	Comment Issue	Commenter	Public Comments	Staff Response
8	Threatened and Endangered Species	Great Peninsula Conservancy	Threatened and Endangered Species- Documenting the existing of nesting marbled murrelets is very time intensive and costly—should include a caveat that this will be done as funding allows.	Section(s) were changed to reference cost of Marbled Murrelet survey work.
9	Aesthetics	Great Peninsula Conservancy	Aesthetics- move the last paragraph of this section to the beginning of this section.	Aesthetics section modified.
10	Recreation	Great Peninsula Conservancy	Recreation- this section should address what types of recreation are appropriate for County-owned forest/park lands. This section includes a reference to 'produce sustainable yields of wildlife, timber and other forest products, clean water, and outdoor educational and recreational opportunities'. The term 'produce sustainable yields' implies a focus on harvest/hunting of these resources— recommend changing the term to 'sustain abundant and diverse'.	Section modified.
11	Forest Stewardship	Great Peninsula Conservancy	Table of Contents lists a subsection on 'Constraints and Consideration' that is missing from the text.	Table of Contents updated.
12	Silviculture	Great Peninsula Conservancy	Recommend you define 'pre-commercial thinning', 'commercial thinning', and 'leave trees' early in this section.	Revised to provide definitions of non-commercial, commercial thinning and leave trees.
13	Stand Management	Great Peninsula Conservancy	The policy is short on quantifiable targets that can be monitored. Recommend that at a minimum, the following landscape and stand level targets be included in the policy: a. Number and location of acres committed to late seral characteristics. b. Average age-classes. c. Harvest volume estimates; they provide a guide for financial planning and would protect against possible overcutting in the future. d. Targets for snag and downed log retention/creation.	Much of this data is tied to park specific forest stewardship plans. Natural resources assessments have focused on the Heritage Parks and more work will be done to determine the current conditions for all parks in the system. Douglas fir plantation estimates show that there are 4,000+ acres of forested park land that would benefit from an ecosystem management thinning prescription. This was verified with a third party review.
14	Non-timber Special Forest Products	Great Peninsula Conservancy	More detailed harvest guidelines for non-timber forest products should be developed over time. Please note that in the fifth sentence the word 'review' should be 'revenue'.	Non-timber, special forest products continue to be a park by park issue. Individual park forest stewardship plans will address non-timber harvesting.
15	Riparian management zones	Great Peninsula Conservancy	We believe that a higher standard other than the basic state Forest Practices Rules for buffer requirements for streams, lakes and wetlands should be adopted. We recommend that riparian buffers should be managed according to DNR's Habitat Conservation Plan (HCP) standards that provide expanded protection for wildlife species.	Noted. Individual park forest stewardship plans are expected to use generously wide buffers under ecosystem management provide with HCP standard. Forest Practices Rules can't be avoided, therefore representing the minimum standard.

No	Comment Issue	Commenter	Public Comments	Staff Response
16	Salvage Logging	Great Peninsula Conservancy	The policy needs more detailed guidance on salvage harvesting relative to human or natural disturbance, and specifically should provide metrics for retention or harvest limits for salvage logging.	Salvage logging has to be considered on a case-by-case basis where adaptive management is required with disease and insect infestation prevention as the primary consideration.
17	Insect and Disease Control	Great Peninsula Conservancy	Tent caterpillar populations are very cyclic and heavily damage alders only in some years.	Noted.
18	Invasive Species	Great Peninsula Conservancy	Scotch broom should be added to the invasive species paragraph. It can be very competitive with young planted tree seedlings. We recommend that the last sentence of this section be revised to read, "Riparian areas will be monitored for knooweed and other noxious weeds that pose a threat to riparian habitats, and control efforts undertaken as appropriate and feasible."	Scotch Broom has been added along with appropriate and feasible control efforts of invasive species in riparian areas.
19	Fire Suppression	Great Peninsula Conservancy	What controls does the policy envision on recreation?	Currently, motorized vehicles are prohibited along with general burn bans.
20	Wildlife Damage Control	Great Peninsula Conservancy	Mountain beaver and black bear should be added to the paragraph on wildlife damage control. Mountain beaver cut and consume seedlings and black bear peel the bark from Douglas fir saplings. This section states 'Depredation of deer is not anticipated nor is it considered necessary or feasible.' Is the intent to state the 'Harvest of deer...?' Depredation refers to damage done by deer, such as eating young saplings, and seems incongruous with the rest of the sentence.	Noted and section revised.
21	Chemicals	Great Peninsula Conservancy	This sections should be more detailed and include a policy on when alternative techniques and appropriate and when chemical applications are deemed appropriate.	Cultural controls vary depending on the vector and will be addressed on a case-by case basis.
22	Harvest Systems	Great Peninsula Conservancy	The policy gives preference to horse logging. It isn't clear that this is the best economic option or that it is appropriate in young, dense stands. We recommend using language that expresses commitment to the lowest impact logging systems and equipment possible for each site and that these systems will be researched and documented in the plan.	Section changed to reflect comment.
23	Harvest Systems	Great Peninsula Conservancy	This section also references leaving 100 Douglas-fir evenly spaced after thinning. This prescription runs counter to previous statements that variable density thinning will be used in order to begin creating more complex forest structure.	Section changed to reflect comment.
24	Harvest Systems	Great Peninsula Conservancy	This section says that all alder will be cut and removed from coniferous tree areas, which runs counter to previous statements that stands will be managed for mixed native species.	Section changed to reflect comment.

No	Comment Issue	Commenter	Public Comments	Staff Response
25	Harvest Systems	Great Peninsula Conservancy	This section states: "Trees to be cut and removed shall be Purchaser selected and cut". We recommend that stands should be marked for thinning by the County's stewardship forester, not the timber purchaser to avoid high-grading the highest quality timber out of a stand.	Section changed to reflect comments.
26	Slash Treatment	Great Peninsula Conservancy	Should reference whether slash harvesting for biomass will be allowed, and if so, what volume of slash can be removed/acre (or should be retained/acre).	Noted.
27	Contractor Selection	Great Peninsula Conservancy	Recommend adding, 'Contractor selection will seek out those experienced in implementing ecological forest management practices.'	Section changed to reflect comment.
28	Schedule for Review	Great Peninsula Conservancy	Recommend this section also indicate a schedule for developing forest stewardship plans specific to individual County forest lands.	Section changed to reflect comment.
29	Recreation	John Willett	The wetlands buffer criteria states there shall be no trails in the buffers, but we have trails in buffers here and everywhere. Wetland buffer zones and stream corridors are prime for trails and are used as such everywhere, with certain limitations and consideration, but not as an excluded use.	Noted. This is a issue common with trail several parks. Some trails may need to be re-routed, but many will likely remain as they are.
30	Process	John Willett	The Squamish Tribe is in the process of putting together a wetlands/stream map here in the North. They are also a source of science for this project.	Noted.
31	Harvest Systems	John Willett	Slash treatments should also allow chipping and mulching that can be spread or blown over the forest floor.	Noted.
32	Roads	John Willett	In some cases, logging roads should be utilized by the public for trails during its rest period between logging operations. The maintenance by trails organizations to keep the old logging road corridors open allows for easier access in the maintenance periods of the forests maturation process, serves as fire breaks and fire suppression acres.	Noted and the plan is to not build any new roads, rather use existing roads built and used for past management.
33	General	John Willett	This is a policy for Kitsap County's Public land holding—make sure that this is underlined and in red block letters.	Noted.
34	Economic and Health	John Willett	A little more emphasis on the economic and health benefits in the opening statement may be beneficial. These forests attract people that respect our lands and water to our country, which will induce people to start businesses that will respect our lands and waters for the most part. The people they hire will more than likely be like minded and their children will learn firsthand about the lands and waters that we are preserving and consequently be more respectful to the environment that makes Kitsap unlike the rest.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan.
35	Economic and Health	John Willett	It is proven that good opportunities for being outside and enjoying the local lands and waters bring economic benefits not only to businesses but also to our health. Supplying places for our citizens to stay active is not just a luxury but a necessity to everyone's health and our economy.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan.
36	Silviculture	Art Ellison	Each part of a forest must be evaluated as to current species, site conditions, forest health, desired results, etc. before giving guidelines for thinning or harvest. It is OK to give very broad guidelines, but I think they could be written in a different way.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan.

No	Comment Issue	Commenter	Public Comments	Staff Response
37	General	Art Ellison	There are some concerns that the plan will be applied to all county-owned forested acreage without regard to the highest and best use.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan.
38	General	Art Ellison	We would hope that the Greenway can be addressed in the county-wide plan as a parcel for which management decisions have already been made and approved and not require further study or be subject to more intensive forest management practices.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan.
39	Content	Art Ellison-Hansville Greenway Association	There is no mention of the fact that the parks vary widely in forest type, land use, and purpose. Some parks are not suitable for forestry practices. These parks have a highest and best use such as recreation, wildlife preserves, or historical preservation.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan.
40	Content	Art Ellison-Hansville Greenway Association	In the policy, after stating the County's goals and responsibilities, identify which tracts of land in the County Parks system are candidates for forest ecosystem management. The other lands not in this list can be addressed in a separate document or perhaps treated in a special section at the end of the policy. This would consist of different set of management guidelines that define the County's goals in land management specific to non-timber management land.	Noted. This will be emphasized in the County-wide forest stewardship plan and each park plan. Additional natural resources assessments need to be conducted to too differentiate the parks and characterize current ecological conditions.
41	Acknowledgment	Art Ellison-Hansville Greenway Association	Acknowledge the stewardship groups that are already in place performing management functions. Ensure that these groups are managing under an approved local plan.	Noted. Stewardship groups (Park Volunteers) have been added as primary stakeholders and decision-makers in the policy.
42	Content	Art Ellison-Hansville Greenway Association	A document may be required to officially designate county park lands according to type of management. These types could be recreation, wildlife preservation, historical, timber production, etc. This could also be included within the definition of the scope of the Forest Stewardship Policy. If necessary, each park could have a designation defined by its intended purpose.	Noted. This will be considered in the County-wide forest stewardship plan and each park plan.
43	Funds	Keith Folkerts	The policy does not identify the source of funds. I'd recommend the program be the recipient of all tax funds provided to the County for timber harvest.	Noted.
44	General	Keith Folkerts	DCD/Natural Resources is a good home if the effort is primarily about landscape/ecosystem conservation; Parks (or Admin Services) may be a better home if the effort is primarily about how the County Manages its lands.	Noted.
45	Forest Stewardship	Keith Folkerts	I'd recommend this Stewardship Forester program be placed within a broader context of an integrated Landscape Stewardship Program. Forests are only part of what's happening on county-owned lands.	Noted. The county scale forest stewardship plan will have a landscape emphasis.
46	General	Keith Folkerts	The Stewardship Forester should be encouraged to make recommendations to state agencies and junior taxing districts about how they manage their forested lands—especially when they are county lands.	Noted.
47	Forest Stewardship	Keith Folkerts	The program should have a more intentional focus on maintaining the health of soils.	Noted.
48	Forest Stewardship	Keith Folkerts	The program should be more intentional about its use of monitoring and adaptive management.	Monitoring and adaptive management are referenced in the policy and will be largely stewardship volunteer driven.
49	Content Classification	Keith Folkerts	Stream location and type verification should be required just like wetlands classification validation is required.	This will be accomplished at the Park scale of planning.
50	Environmental	Keith Folkerts	Riparian protection (stream and marine) should be discussed alongside wetland protection.	This will be emphasized in the County-wide forest stewardship plan and each park plan.

No	Comment Issue	Commenter	Public Comments	Staff Response
51	Noxious Weeds	Keith Folkherts	The program seems to give little attention to noxious weeds; I think this will be a major part of the program.	Revision provides more specifics on noxious and invasive control.
52	Forest Stewardship	Keith Folkherts	The program could gain credence from committing to minimum standards for its forestry practices.	This is a future goal for the Forest Stewardship Program.
53	Format	Keith Folkherts	Is there a stewardship plan template that will be used for the individual parcels? DNR has one for Natural Area Reserves which is comprehensive. WSU template? DNR? WDFW? RCO?	Park scale forest stewardship plans will use the DNR/WSU template.
54	Forest Stewardship	Keith Folkherts	I recommend that many of the lands that get a Stewardship Plan should also get conservation easements to ensure they are managed in the long term in keeping with the plan.	This will be considered in the County-wide forest stewardship plan and each park plan.
55	Content	Keith Folkherts	The plan doesn't do a good job of highlighting the short-term economic benefits of forest restoration; the mid-term importance to the local timber industry for providing continuous supply of locally-harvested trees; or the potential long-term economic benefit of maintaining biodiversity.	This will be considered in the County-wide forest stewardship plan and each park plan
56	General	Keith Folkherts	Ameri-Corps and Ecology Youth Corps could provide a potential source of labor; the plan should call upon the Forester to examine this.	Noted.
57	Threatened and Endangered Species	Keith Folkherts	The document doesn't show steelhead as an ESA-listed species.	Noted.
58	General	Bill McKinney	Bremerton has done commercial thinning, returning a 3" of the value back to the city and the structural complexity and habitat of the forested land does benefit.	Noted.
59	Content	Bill McKinney	The plan needs to be stated in detail and it's critical to get someone in there who understand your goals.	Noted.
60	Content	Tom Ostrom Suquamish Tribe	The goals are great but it seems like it should be an integrated parks/planning goal/methodology. We all have this as a priority.	Noted with revision to include consistency with KD Parks and Recreation Open Space Plan
61	Content	Tom Ostrom Suquamish Tribe	It doesn't jump out, it should be more prominent (referring to comment saying the goals are addressed in the latest Open Space Plan for Kitsap County).	Noted with revision to include consistency with KD Parks and Recreation Open Space Plan
62	Content	Tom Ostrom Suquamish Tribe	The emphasis needs to stress ecosystem goals and management.	Noted and revised to emphasize ecosystem goals and management.
63	Content	Tom Ostrom Suquamish Tribe	One thing you may add to the legal context is that many of these properties were leverages for legacy grants and therefore there is a need to recognize that each property has a different circumstance and requirements, which must be addressed.	Will be documented and accounted for in the County-wide forest stewardship plan and each park plan.
64	Silverculture	Louis Nawrot	Concerned about the overarching philosophy that all parks' lands, with trees require "silvicultural" manipulation and should be the subject of commercial logging.	Noted.
65	General	Louis Nawrot	Greater attention should be given to certain aspects of plan administration.	Noted.
66	Content	Louis Nawrot	Appendix 16.1 lists a number of parcels of parks' land for "Forest Ecosystem Management". A quick review of the appendix raises an issue over whether some of the listed parcels are appropriate candidates for forest ecosystem management.	This will be considered in the County-wide forest stewardship plan and each park plan.

No	Comment Issue	Commenter	Public Comments	Staff Response
57	Content	Louis Nawrot	Hansville Greenway (and other parks' parcels with similar histories or feature) should be removed from the parcels subject to the policy. If, however, there are cogent reasons for the Hansville Greenway being included under the Policy, I suggest that the policy place the Hansville Greenway at the outset into a separate category designating it for special management and exempt from the "pre-commercial and commercial" harvesting. The creation of this subcategory needs to be done now in the text of the Policy itself rather than being left to later.	Noted. This will be considered in the County-wide forest stewardship plan.
68	Content	Louis Nawrot	The Policy identifies a need for separate parcel-specific plans (pp 5-9). It suggests that Kitsap County needs to start over and develop these plans from scratch.	Noted.
69	Content	Louis Nawrot	The draft needs clearly defined roles of Parks and the volunteers and to recognize the practical limits on the activities of each imposed by time and budget constraints.	Noted with revisions in the section on public involvement and outreach.
70	Content	Louis Nawrot	This Policy should specify that currently existing local plans remain in place until and unless replaced and that local plans under initial development or revision continue to be processed by Parks not jettisoned. This Policy needs to make clear that local volunteers entrusted with the stewardship of an individual parcel be intimately and directly involved in the development of the local plan for the parcel and that the local plans should be drafted as practical, focused working documents.	Noted with revisions in the section on public involvement and outreach.
71	Content	Louis Nawrot	The Policy only generally mentions that management under it should be a cooperative effort among private, tribal and governmental interests (pp 1-4 and 6-10).	Noted with revisions.
72	Content	Louis Nawrot	I believe that locally-based and focused volunteer stewardship organizations (Hansville Greenway Association) are the backbone of Parks' stewardship of its properties. The Policy should emphasize to a much greater extent than it does currently that local stewardship organization will be recognized under the Plan and entrusted with substantial participation in the planning and operation of their local parcels, subject, of course, to Parks' oversight and supervision.	Noted with revisions.
73	Support	Jim Heytvelt	I was encouraged to see that there was actual activity to begin such a program. I fully support the ideas brought forth and believe it is the only way to manage our park's forests. I also strongly support the process to rid the parks of non native species. I hope that this is financially practical, it is needed and will be appreciated hundreds of years from now.	Noted.
74	Support	Doris Small	I'd like to complement the authors on the improved version of the proposed policy.	Noted.
75	Process	Doris Small	Have you considered asking for a pilot project before adopting the policy and moving forward on the plan?	Noted.
76	Road Access	Doris Small	The issue of road access is important. To open up healed over skid trails and hauling spurs would conflict with the progress that we've made in halting unauthorized trail building. I suggest that thinning units are not accessible from the main roads use a management technique that wouldn't involve re-opening spurs such as leaving the thinned trees as down trees.	Noted. This will be addressed in the County-wide forest stewardship plan and each park plan.
77	Definition	Doris Small	Please add detail to prescriptions for leave trees & down wood for wildlife. How many per acre as a goal? Quality and quantity.	This will be addressed in the County-wide forest stewardship plan and each park plan.

No	Comment Issue	Commenter	Public Comments	Staff Response
78	Environmental	Doris Small	Perhaps some of the thinned trees could be stockpiled for habitat restoration projects within the county. Wood sources (with root wads particularly) are often not easy to find.	Noted.
79	Environmental	Doris Small	Some concern about hazard tree removal—this has the potential to be applied to broadly. Please provide more detail on how this assessment would be made.	This will be addressed in the County-wide forest stewardship plan and each park plan.
80	Support	Doris Small	Overall, I'd like to see this concept move forward as the County stewards a great deal of forest land.	Noted.
81	Content	Doug Skrobot	My concern is that this Policy is too prescriptive on how to best manage the change from what it is today to what is desired in the future. I believe that it would better to not prescribe in detail in this document how the change in the nature of the wooded lands will occur, but rather to rely on existing state and federal laws and best management practices for regulations.	Noted with revisions that reduce prescriptive statements about best management practices. This will be further addressed in the County-wide forest stewardship plan and each park plan.
82	Content	Doug Skrobot	I suggest that the parts of this document that contain very detailed requirements, such as some portions of section 9, be considered guidelines and suggested practices, but that there would be an opportunity to vary from these guidelines if appropriate in the detailed plan.	Noted.
83	Content	Doug Skrobot	There seems to be a sense in the document that this process of changing the type of wooded land is "project development" and needs to be guided by Kitsap County development regulation. This process of changing the nature and complexity of the existing wooded lands is not development.	Noted.
84	Policy	Mike Collins	In paragraph 5.0: In the PARK SCALE section, it's written that each forest area will be managed using its own "forest management plan", yet in "FOREST STEWARDSHIP PLANNING" it reads "the plan needs to look at the 6,500 acres as a whole, instead of as separate properties or parks creating a single management document for all county." The statements seem to be in conflict with each other. Will this "Draft" County plan have the ability to veto a management plan specifically developed for Banner Forest or any county park? If so, why?	Noted with revisions to clarify the three scale of planning: county, park and ecotype.
85	Forest Stewardship Advisory Council (FSAC)	Mike Collins	In paragraph 5.2: "Kitsap County will establish a Forest Stewardship Advisory Council" (FSAC). I think it is necessary to identify who and from where the County will select the members of this advisory council. I also believe it is necessary to state that the advisory council will have active members from each of the various park stewardship committees and or watch groups. This would eliminate the potential disconnect between the FSAC and the "boots on the ground" volunteers who know the parks and have first hand experience of park issues.	Noted with revisions and recommendations for FSAC representation.
86	Stand Management	Mike Collins	In paragraph 9.3: Stand management The statement "densely stocked with second growth in need of thinning" sounds a lot like a cash cow statement.	Noted.
87	Fire Suppression	Mike Collins	In paragraph 10.1.3: Fire Suppression Why allow logging "during periods of high fire danger" at all... In any of our county parks (if the county intends to log any of them)? Allowing it to proceed during these times creates a potential to lose the park. Is the funding need so great that it warrants the risk of losing a park and endangering surrounding areas?	Noted with the understanding that fire danger is and will be a limiting factor on harvesting operations.



No	Comment Issue	Commenter	Public Comments	Staff Response
98	General	Mike Collins	<p>In paragraph 14.0: Policies and Procedures This one section has the most potential for creating havoc in BFP. It gives authority to harvest as necessary to meet the financial goals of the FSC.</p> <ol style="list-style-type: none"> <li>1. "forest ecosystem prescriptions will seek to achieve a sustainable level of revenue."</li> <li>2. "Funds will be generated by receipts from the sales of forest products."</li> <li>3. "in a Forest Stewardship Special Revenue Fund."</li> <li>4. "special revenue fund and be financially sustained from selective thinning and harvest of natural materials."</li> <li>5. "The County may lend startup funds to be repaid from future revenues."</li> <li>6. "The Program is not intended to generate revenue for other County purposes." Not intended? How about "will not be used for any other purposes other than xyz?" The County has a history of using funds from on source to pay for another so this needs to be etched in stone as "will not."</li> <li>7. "shall prepare a multi-year management and business plan with annual expected revenues and expenditures for each year"</li> </ol>	Noted.
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<b>COUNTY PUBLIC MEETING COMMENTS</b>				
98	Process	Workshop at Kingston Community Center	How will very young reforested areas be treated (15 to 20 years old)	The goal will be to choose the healthiest trees and promote better growth for the stand as a whole.

No	Comment Issue	Commenter	Public Comments	Staff Response
99	Process	Workshop at Kingston Community Center	How much land (pre-commercial growth) needs to be thinned? (in the Park system).	Approximately 500 acres, which would be addressed in smaller segments and as a part of individual park forest stewardship plans.
100	General	Workshop at Kingston Community Center	How did you arrive at your list of areas that would be treated with the forestry plan?	This is determined through the on the ground assessment and planning process for each County Park.
101	Plan consistency	Workshop at Kingston Community Center	Would this be inconsistent, or in conflict with the Conservancy plans?	This policy will not go against or negate existing Conservancy plans, specifically addressed was the Hansville Greenway and Illalaea Preserve.
102	Content	Workshop at Kingston Community Center	Does the proposed Policy, or Program, have anything written in it that mentions how the current stewardship groups work within the new system?	Revision clarifies the role of park stewardship groups.
103	General	Workshop at Kingston Community Center	Liked the plan overall, concerns that money will overtake the goals of the planning and that the areas that are "tree poor" will be left behind, as having no value.	Noted
104	Environmental	Workshop at Kingston Community Center	There were concerns about danger trees and how to assess them and how often they would be assessed.	Where ever possible, snags should be left as habitat trees, if risk assessment allows.

No	Comment Issue	Commenter	Public Comments	Staff Response
105	General	Workshop at Kingston Community Center	Comments requesting reassurance about thinning of trees not being solely money motivated.	Planning for each park will be an open process lead by park stewards. There is not going to be traditional timber harvest rotation, thinning, salvaged or hazard tree removal solely for money, only for forest health.
106	General	Jim Aho	Request the Forest Stewardship Policy (FSP) document be amended to define the role of the Stewardship Committees, where they exist for county parks.	Noted. Stewardship groups (Park Volunteers) have been added as primary stakeholders and decision-makers in the policy with regard to forest stewardship plan preparation and implementation.
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<b>KITSAP COUNTY COMMISSIONER COMMENTS</b>				
109	Funds	Workshop at Kingston Community Center	There needs to be a firewall between plan and money, and to eventually have this plan be self sustaining.	Commissioner Geider asked how they like the proposed policy.
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