

Log Cabin Reach Natural Area Site Management Guidelines

October 2004

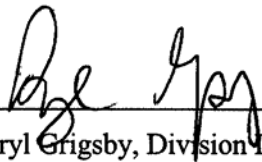


King County

Department of Natural Resources and Parks
Water and Land Resources Division

Log Cabin Reach Natural Area Site Management Guidelines

October 2004



Daryl Grigsby, Division Director

King County Water and Land Resources Division



King County

Department of Natural Resources and Parks
Water and Land Resources Division

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Log Cabin Reach Natural Area Site Management Guidelines

Summary

Site Description

Log Cabin Reach Natural Area is a King County Department of Natural Resources and Parks (DNRP) Ecological Land. Ecological Lands are managed for the protection of their ecological value, with appropriate public access.

Log Cabin Reach Natural Area consists of five contiguous parcels that comprise 113 acres along Issaquah Creek, on the west side of Cedar Grove Road SE, and one additional five-acre parcel on the east side of Cedar Grove Road SE (in total the site is 118 acres). This reach of Issaquah Creek is known as the “Log Cabin Reach” because there is a log cabin on this property that was built about 1930. The site is approximately 3 miles south of the city of Issaquah, 5 miles east of the city of Renton. The five parcels on the west side of Cedar Grove Road SE lie immediately east of the Cedar Hills Landfill. The parcel on the east side of Cedar Grove Road SE was purchased as part of the acquisition. The intent at the time of acquisition was to surplus this parcel, although this parcel may be retained as part of the Natural Area.

The Cascade Land Conservancy (CLC) holds a stewardship easement on the five parcels west of Cedar Grove Road. This easement provides opportunity for CLC the right to perform “compatible stewardship activities” on the site, and use the site for educational and volunteer activities. Prior to undertaking any activities, CLC will prepare a Stewardship Plan with additional restoration plans that may incorporate information provided in these Site Management Guidelines. The Stewardship Plan will be reviewed and approved by King County, will be consistent with labor agreements, and may allow issuance of a special use permit from King County for their planned activities. King County and CLC will notify one another of activities, and ensure restoration is complementary.

This reach of Issaquah Creek stands out in the basin for its high quality stream habitat, supporting in-stream habitat features such as log jams, midchannel gravel bars, braided side channels, and pools. The creek is unconfined by levees and revetments through this reach, allowing channel migration during times of high water, high potential for woody debris recruitment from the forested riparian corridor, and contribution of sediments and gravels from high banks above stream meanders.

The site supports open fields in the southwest, with a large emergent/scrub-shrub wetland area fed by an unnamed seasonal stream, with topography rising to a high grassy hill on the eastern edge. The riparian corridor is dominated by deciduous trees and shrubs, particularly through the southern part of the site where side channels and islands are frequent. The western and northern parts of the Natural Area are mature second-growth forest; the northwestern stand approaches old growth in its tree size and stand conditions. Invasive species are primarily blackberry patches in the fields, or butterfly bush, policemen’s helmet, and other species scattered along the riparian corridor. (Also of note is that the Northwest Pipeline crosses this property from north to south. The pipeline area may subject to vegetation maintenance, excavation for repair/upgrade, and restrictions on tree growth.)

Chinook, coho, sockeye salmon, cutthroat, and steelhead trout are present in Issaquah Creek. A designated wildlife corridor along Issaquah Creek connects the site with the Cedar River Watershed and Taylor Mountain to the southeast, Tiger Mountain to the east, and Squak and Cougar Mountains to the north and northwest. The size and variety of habitats lend this site particular importance in a landscape characterized by rural residential development. This site is of a size that may support large mammals such as bear, as well as diversity of birds, smaller mammals, and other wildlife.

Public Use

The site is appropriate for passive recreational use, such as walking or nature observation. Areas most appropriate for public use are the fields in the south and western portion of the site, the main road/trail through the site, and the river overlook at the end of the road. The ecological importance of the wetland and stream corridor through the site merit limited public use in those areas.

Currently, the site is used occasionally by local residents who access the site from their properties or from Cedar Grove Road. The main point of access is on the 14200 block of Cedar Grove Rd SE, at a small pullout and gate. An unpaved road provides access through the site to the creek, and a number of informal trails access different parts of the site. Limited parking restricts the number of visitors. Although there was evidence of past motorized vehicle use upon acquisition, the installation of fencing and signs has appeared to eliminate this type of use.

Management Objectives and Recommendations

The goals for all King County Ecological Lands are to conserve and enhance ecological value, and accommodate appropriate public use that does not harm the ecological resources on site. The following are management recommendations that are designed to support these goals. Text follows each recommendation explaining how that recommendation applies at the site.

Objective: Maintain ecological integrity of the site

Recommendation: Ensure that management and public access support the regional ecological value of site

Decisions about site management and public access should consider the ecological role of the varied habitats at the site, such as: mature second-growth forest with old-growth characteristics; active channel migration areas, complex channel structure, and dense deciduous forest in the riparian corridor; open field and wetland habitat for small mammals and birds. These characteristics support maintaining a low level and intensity of public use at the site, directed to upland portions of the site and the main trail. This overarching recommendation is carried out through the various recommendations below.

Objective: Develop and implement ecologically based protection and restoration actions

Recommendation: Perform selective ecological site assessments

NRL will work with King County basin steward, CPOSA, and resource coordinator staff and with CLC to identify geographic areas for site assessment work that Watershed and Ecological Assessment Team (WEAT) staff anticipate performing in 2004. The areas selected for this work should help to provide baseline information from which to develop management recommendations. Additional site assessment work may be performed by CPOSA or CLC.

Recommendation: Develop recommendations for habitat enhancement from assessment information

King County and CLC should use inventory/assessment information to develop specific actions that meet the purpose and goals of sites identified as King County Ecological Lands. Incorporate this new information and recommendations into updates of Site Management Guidelines and Stewardship Plan. Initial enhancement activities implemented in Spring 2004 included invasive species mapping, control, and conifer underplanting.

Project areas that have been preliminarily identified include invasive species control along the riparian corridor, blackberry containment and/or removal in the meadows, and wetland enhancement.

As projects on the Natural Area are prioritized and funded by King County agencies outside of the Natural Resource Lands group (or by other implementing agencies), projects should be reviewed by NRL through the "Application to Alter Parks Division and NRL Managed Properties" process to coordinate site management with project work.

Recommendation: Maintain existing and establish new planting projects

Any party conducting planting projects (King County CPOSA, contract staff, or CLC) will be responsible for monitoring and maintaining plantings or invasive removal projects installed as part of their respective project work for a minimum of three to five years (unless alternate arrangements are made with King County Parks staff). This monitoring period should be established in any special use permit, consent permit, or approval memo issued for the activity, by DDES permit conditions, or by SHRP program standards. After the monitoring period is completed, King County staff including Resource Coordinator, NRL, and responsible project staff, should determine if additional project maintenance is required.

Recommendation: Coordinate restoration activities in the pipeline easement with Northwest Pipeline Company

Contact Northwest Pipeline Company for review of restoration projects that will occur in the easement.

Recommendation: Consider collecting data to establish a reference site for the area

Watershed and Ecological Assessment staff may consider gathering data at the site to establish Log Cabin Reach Natural Area as a reference site for ecological conditions in the area.

Objective: Contain spread of invasive vegetation

Recommendation: Monitor and control invasive vegetation

Park staff should monitor, contain, and where possible reduce the spread of noxious and (when feasible) invasive plant species that are present at the sites. This work is recommended particularly in those areas where planting projects have occurred.

Recommendation: Establish mowing plan for blackberries

King County staff, including CPOSA and Parks Resource Coordinator should determine appropriate mowing plan for blackberries in meadow areas.

Objective: Protect the site from inappropriate public uses

Recommendation: Monitor the site for inappropriate activities

Park staff should monitor the site for encroachment, dumping, and trash and respond as necessary to maintain a clean and safe property. Access points and the log cabin structure should be monitored approximately once a week for trash and evidence of use.

Boundary corners and fences should be visited four times per year, although with initial acquisition and site work more frequent monitoring may be required. The area of fencing and new signs at the northwest corner of Log Cabin-9057 parcel will need to be monitored at least monthly during 2004 to determine whether inappropriate uses are occurring in this location.

Objective: Allow current level of passive recreation opportunities at the site

Recommendation: Monitor public access

Walking and nature observation, primarily in upland and trail portions of the site, is appropriate at this site. Park staff should note changes in visitor numbers and types of recreational activities at the site, and observe any noticeable visitor impacts on the ecological values of the site. This information should be reported at least annually to King County Natural Resource Lands Management Staff responsible for updating site management guidelines. If public use increases in its extent and intensity, King County Resource Coordinator, Basin Steward, NRL, and CLC may need to make decisions about appropriate ways to direct public use, provide education about site stewardship, or alter access/parking off of Cedar Grove Road SE to support use at a level that continues to conserve site resources.

Recommendation: Maintain safe conditions for public use

Parks staff and CPOSA (or contract) staff performing restoration or invasive control work should remove old fencing when it is in a location that may pose a hazard to site users, or has fallen down.

Objective: Uphold King County and CLC obligations under Stewardship Easement

Recommendation: Develop and approve Stewardship Plan

CLC will write a Stewardship Plan for the site, using these Site Management Guidelines and working with King County where appropriate to develop the plan. King County will review and approve the Stewardship Plan.

Recommendation: Meet at least annually to discuss King County and CLC activities at site

CLC and King County will meet at least annually to discuss recent and upcoming management activities at the site. Discussion should include coordinating who will perform management/restoration activities, and timeline for activities.

Recommendation: Update Stewardship Plan every two years

CLC is required to update the Stewardship Plan every two years, unless the County and CLC agree in writing that this update is not necessary.

Recommendation: Ensure that King County labor agreements are respected in allocation of site work

King County and CLC will make sure that the Stewardship Plan and agreements as to activities that will be performed by CLC adhere to King County labor standards. This will involve consulting with the Parks Labor Management Committee when responsibilities have been identified to ensure that labor agreements are preserved, preferably at the time that Stewardship Plan is completed.

Objective: Resolve property ownership issue

Recommendation: Resolve issue of possible surplus of parcel east of Cedar Grove Road

By spring 2005, NRL, Basin Steward, and Parks Resource Coordinator should determine whether parcel 222306-9056 on the east side of Cedar Grove Road should be surplused and removed from the site, or retained as part of the Natural Area. The decision should consider: additional maintenance/management burden of property; ecological resources on the parcel and connection of those resources to the rest of the Natural Area; probable impacts of development at the parcel.

Objective: Update Site Management Guidelines

Recommendation: Update Site Management Guidelines at least every five years

King County NRL will update Site Management Guidelines at least every five years, or earlier if appropriate based on new inventory added to site or changes in management strategy. NRL will coordinate review and approval with (at a minimum) Basin Steward, CPOSA, Resource Coordinator, and Flood Hazard Reduction Services staff within King County DNRP, and with CLC.

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Acknowledgements

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Log Cabin Reach Natural Area Site Management Guidelines

Introduction

Log Cabin Reach Natural Area is a King County Department of Natural Resources and Parks (DNRP) Ecological Land. Ecological Lands are a category of Water and Land Resources Division (WLRD) properties managed for the protection of their ecological value. Appropriate public access and interpretive opportunities are accommodated on these sites where they do not harm the ecological value of the site.

Log Cabin Reach Natural Area consists of five parcels that comprise 113 acres west of Cedar Grove Road SE, and a sixth 5 acre parcel east of Cedar Grove Road SE. The Natural Area is owned and managed by King County. The Cascade Land Conservancy (CLC) holds a stewardship easement on the five parcels located west of Cedar Grove Road. This easement provides opportunity for CLC to contribute to complementary restoration activities at the site and use the site for educational and volunteer activities.

This Site Management Guidelines document provides general property and acquisition information, a description of existing site conditions, a chronology of recent events and management actions, and a list of management objectives and recommendations for Log Cabin Reach Natural Area. This document was developed using guidance established in the King County Ecological Lands Handbook (King County 2003).

As required by the Stewardship Easement, King County prepared a Present Conditions Report to document baseline site conditions. Prior to performing work at the site, CLC will prepare a Stewardship Plan with additional restoration plans that may incorporate information provided in these Site Management Guidelines; this stewardship plan will be discussed further in Part 2.

Part 1. General Property Information

Log Cabin Reach Natural Area is located in unincorporated King County, approximately 3 miles south of the city of Issaquah, 5 miles east of the city of Renton (3 miles east of the Renton urban growth boundary), and 2 miles to the west of the Forest Production District. The Natural Area is located along Cedar Grove Road SE in the vicinity of SE 148th St, about 0.5 miles southwest of the junction of Cedar Grove Road SE with Issaquah-Hobart Road. The Natural Area extends west from Cedar Grove Rd SE to the Cedar Hills Landfill on its western boundary. See Figure 1 for a vicinity map.

The five contiguous parcels that make up the 113-acre Natural Area west of Cedar Grove Road SE are located on both banks of Issaquah Creek.¹ This reach of Issaquah Creek is known as the “Log Cabin Reach” because there is a log cabin on this property that was built about 1930. Table 1 provides general information about the location of the Natural Area. Table 2 provides specific information for the each parcel and indicates the names that will be used in this document to refer to each parcel (nomenclature used is “Log Cabin-” and the last four digits of the ten-digit parcel number). Figure 2 indicates the location of each parcel.

This property is located in the Middle Issaquah Creek sub-basin as defined in the Issaquah Creek Basin Current and Future Conditions Report & Source Identification Report (King County 1991). This sub-basin contains the creek between approximately RM 4 and RM 11. The sub-basin is 3238 acres in size, and was 80% forested in 1991 (King County 1991, p. 11-9). Predominant land uses are agricultural and low-density single-family residential. Most property in the vicinity is zoned RA-5, one home per 5 acres.

¹ Due to the intention to surplus the sixth parcel (222306-9056) this document describes site conditions and management of the five parcels west of Cedar Grove Road SE. The parcel is discussed in this preliminary inventory section, but is not described in the rest of the document.

Table 1. Log Cabin Reach Natural Area General Information.

Best Available Address	14925 Cedar Grove Road SE (former address)
Thomas Guide Map Location	658 A4&5, B4&5
Legal Description	Section 22, Township 23N, Range 6E
Acreage	113.48 Acres (King County Assessor's data) plus 4.82 acres intended for surplus
Drainage Basin	Issaquah Creek
WRIA	8
Council District	12
King County Sensitive Areas	Stream, Wetland, FEMA 100-year floodplain and floodway, erosion

Table 2. Log Cabin Reach Natural Area Parcel Information.

Parcel Number	Name used in SMG*	Acreage **	Purchase Date	Ownership type/price	Previous Names	Zoning	Funding Source	Recording Number
2223069053	Log Cabin-9053	19.83	12/5/2003	All parcels owned in fee by King County; Stewardship Easement held by CLC; \$850,791.67	Anderson	RA-5	SRFB, CFT	2003121800 1559
2223069054	Log Cabin-9054	19.83						
2223069055	Log Cabin-9055	30.67						
2223069057	Log Cabin-9057	20.61						
2223069058	Log Cabin-9058	22.54						
2223069056	Log Cabin-9058	4.92	12/18/03	Owned in fee by King County; \$170,158.33	Anderson	RA-5	King County SWM funds	2003121800 1560

*Parcels are referred to by the last four digits of the ten-digit parcel number.

**Acreage from King County Assessor's data. Funding information from DeGoojer, N. pers. comm. 2004.

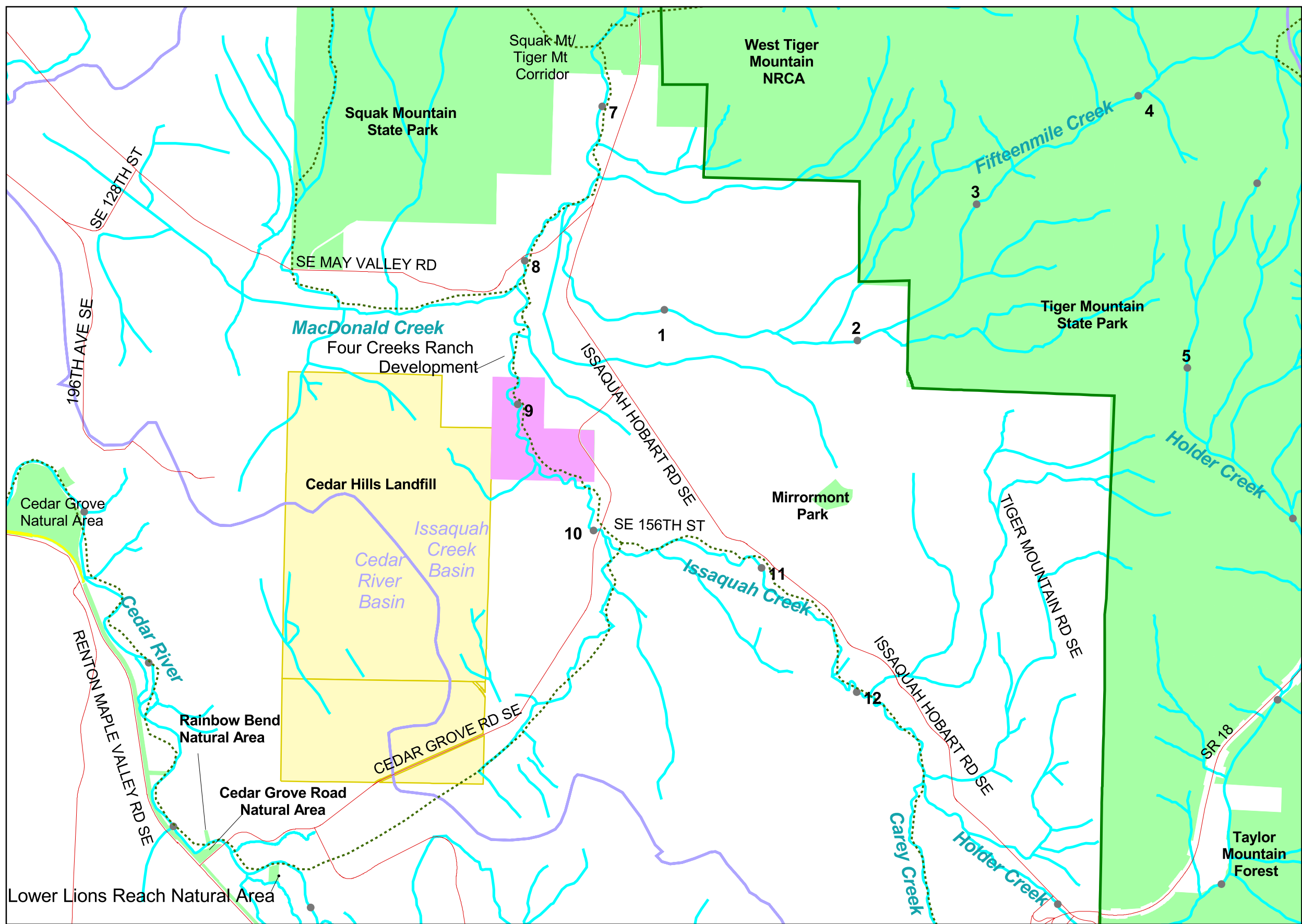
A number of subdivisions in the vicinity support homes at higher levels of density (approximately 0.8 acre lots), including the Four Creeks Ranch Development just north of the Natural Area along Issaquah Creek, and the Mirrmont Development approximately 0.5 miles to the east of the Natural Area. The Cedar Hills Landfill contains approximately 920 acres of restricted-access public land immediately to the west and south of the site.

There are numerous public recreation lands in the area (Figure 1). Within 1 mile to the north of Log Cabin Reach Natural Area is the State of Washington-managed 1540-acre Squak Mountain State Park. The State of Washington-managed 14,000-acre Tiger Mountain State Park lies within 2 miles to the northeast and east of the site (including the West Tiger Mountain Natural Resource Conservation Area). Also within 2 miles to the north are the King County-managed 430-acre Cougar/Squak Corridor, the 240-acre Squak Mountain/Tiger Mountain Corridor, and the 50-acre Issaquah Creek Natural Area. The King County-managed 10-acre Mirrmont Park is located 1 mile to the east of the site. Two miles to the south, along the Cedar River, are numerous small (1-4 acres) King County Ecological Lands including Cedar Grove Road Natural Area², Rainbow Bend Natural Area, and Lower Lions Reach Natural Area.

Part 2. Acquisition Information, Funding Sources and Deed Restrictions

Six parcels were purchased in December 2003. One parcel (2223069056) across Cedar Grove Road from Log Cabin-9057 was a required part of the purchase of the other five parcels, and it had been the intention of King County to surplus this parcel. However, preliminary evaluation of the parcel has indicated that

² Formerly called Cedar Grove Downstream Natural Area



Legend

- Wildlife Habitat Network
- Forest Production District
- River Mile Markers
- King County Tax Parcels
- Streams
- Log Cabin Natural Area
- Drainage Basin Boundary
- Streets
- Selected Public Lands
- Cedar Hills Landfill (no access)



March 23, 2004
800 0 800 1600 2400 3200 4000 Feet

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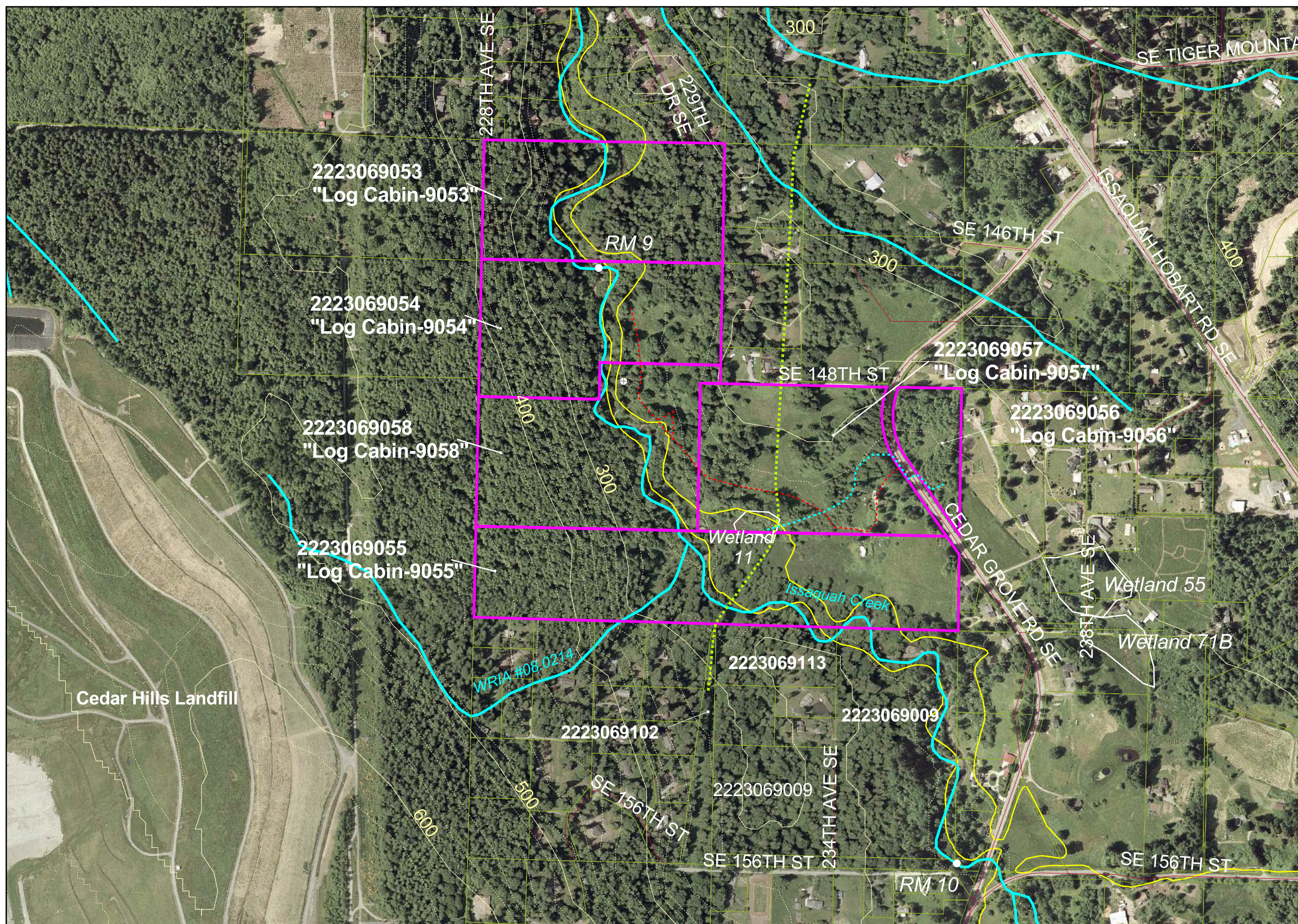


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Figure 1

Log Cabin Reach Natural Area: Vicinity Map



Legend

Parcel names are the last four digits of the 10-digit assessor's parcel number

Internal road, unmapped stream, and pipeline locations are mapped from GPS-recorded locations and from aerial photo interpretation

Aerial photos date from 2002

Location of streams, wetlands, floodplains, and topographic contours are approximate

- Unmapped tributary (approx)
- NW Pipeline (approx)
- Log cabin location
- Internal road (approx)
- River Mile Markers
- Log Cabin Natural Area
- King County Tax Parcels
- Streams
- Streets
- Floodplains - 100 year
- 20 ft Contour Lines
- 100 ft Contour lines
- Wetlands



August 10, 2004
 200 0 200 400 600 800 1000 Feet

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Figure 2

Log Cabin Reach Natural Area: Parcel Names and Site Features

this parcel contains a stream and wetlands that contribute hydrologically to the other five parcels. A decision will be made by Spring 2005 to retain or surplus the parcel.

Two adjacent parcels along Issaquah Creek to the south of Log Cabin-9055 may be acquired in the future (parcels 222306-9113 and 222306-9009) (see Figure 2). These acquisitions would increase the acreage of the Natural Area by approximately 30 acres. Neither these future acquisitions nor the additional 222306-9056 parcel purchased in December 2003 would be subject to the Stewardship Easement held by CLC.

Funding Sources

Funding for the purchase of the five parcels west of Cedar Grove Road came from the Salmon Recovery Funding Board, Conservation Futures Tax Levy; funding for the purchase of parcel 222306-9056 was from King County Surface Water Management (SWM) funding. Further explanation of the first two funding sources is provided below. King County SWM funding is not associated with any funding restrictions.

Salmon Recovery Funding Board

The Washington State Salmon Recovery Funding Board (SRFB) was created in 1999 to administer funds for salmon recovery appropriated by the state legislature and Congress (RCW 77.85) (SRFB 2002). SRFB's mission is to "support salmon recovery by funding habitat protection and restoration projects and related programs and activities that produce sustainable and measurable benefits for fish and their habitat." SRFB receives administrative support from the State Interagency Committee for Outdoor Recreation (IAC).

Project sponsors such as cities, counties, agencies, tribes, non-profit organizations, and private citizens submit applications to local lead entities such as Watershed Resource Inventory Area Steering Committees. The lead entities submit prioritized lists of project applications to SRFB for consideration. Sponsors request funds to protect or restore salmon habitat, commit to long-term monitoring, and provide a monetary or in-kind match of 15% or more. Projects may include acquisition; in-stream passage or diversion; in-stream, riparian, upland, or estuarine habitat actions; or assessments and studies.

Lands acquired in fee with SRFB assistance for habitat conservation or salmon recovery uses must be dedicated to these uses in perpetuity. This interest is secured through a recorded Deed of Right to Use Land for Habitat Conservation and/or Salmon Recovery Purposes that conveys property interests to the public forever. A Deed of Right to SRFB will be filed for the property. SRFB funds were granted for the purchase of the 5 parcels currently in the inventory, and the 2 additional parcels identified above as potential acquisitions.

Conservation Futures Tax Levy

Conservation Futures Tax (CFT) levy is authorized by state statute RCW 84.34.230. A county may place this levy upon all taxable property in its jurisdiction. Revenues may be placed in a Conservation Futures Fund for jurisdictions or nonprofit nature conservancy corporations to acquire open space land or rights to future development within that county (these development rights are termed "conservation futures" in RCW 84.34.220). Open space is defined in RCW 84.34.020 generally as land contributing to natural resources, streams, water supply, public land network, historic sites, visual quality, or as certain agricultural conservation lands. Acquisition criteria identified by King County include: wildlife, salmonid, or rare plant habitat value; scenic resource, community separator, greenbelt, or general park and open space value; or historic and cultural resources. Additional consideration is given to passive recreation opportunity, interpretive opportunity, threat of loss, complexity of acquisition, public-private partnership, regional significance, relationship of proposed acquisition to existing parks, trails, or greenway systems or plans, and short-term and long-term stewardship commitment at the site (KCC 26.12.025).

King County Council directs the spending of a portion of annual CFT funds; a Citizen's Oversight Committee reviews and approves competitive applications for the remainder of the funds. CFT funds are allocated to sponsoring jurisdictions with the requirement that matching funds from the applicant jurisdiction are of equal or greater value to CFT funding sought (matching funds may be cash, land trade, or value of land purchased adjacent to proposed acquisition). Acquisitions may be fee-simple or less-than-fee acquisitions.

Purchases made with Conservation Futures funds are to be used for low-impact, passive-use recreation. Motorized use is limited to parking/staging/maintenance areas. "Non-vegetative impervious surfaces" should cover less than 15% of the site (CFT 2002). Conservation futures interests shall not be transferred except with agreement that land interests shall be preserved in accordance with the intent and language of RCW 84.34.230; uses of lands shall not be altered unless equivalent lands within the geographic jurisdiction are provided (KC Ordinance 10750, p. 10).

Easements and Title Conditions

At the time of acquisition, the property is subject to the following easements and conditions documented in the statutory warranty deed (20031218001559) and title report:

- Pacific Northwest Pipeline (9/21/1956, Recording # 4732266 and revised under #7107070269) affecting a portion of the south half of the northwest quarter" of Section 22, Township 23N, Range 6E. Title report indicates that this affects all five parcels, although pipeline only runs through Log Cabin-9055 and -9057 parcels. Further terms of this pipeline easement are discussed below.
- Easement for ingress, egress, and utilities in the southeasterly portion of Log Cabin-9057 and -9058. (5/29/97, Recording #199705299007 (survey records)). This easement enters from Cedar Grove Road SE south of the existing driveway, follows the existing internal road on the property until Log Cabin-9058, and diverges from the road at this point to follow the Log Cabin-9058 boundary to the north and provide access to Log Cabin-9054. The easement was recorded for "Fred Anderson", presumably one of the former Anderson Family owners of the site. The easement secures access from Cedar Grove Road to parcel Log Cabin-9054.
- Easement to maintain a satellite dish in a 5x10 foot area on the northern boundary of Log Cabin-9057 (10/3/03, Recording # 20031003002018). This easement is granted "for so long as the current satellite dish remains in use for its current purpose, provided grantees disclaim any ownership interest in [Log Cabin-9057 parcel]."
- Conditions of boundary line adjustment (BLA) L03L0055 (12/4/03, Recording # 20031204900028 (survey records)) on the eastern boundary of Log Cabin-9055. This BLA moved the existing eastern lot line to the west by 8-15 feet to reflect existing fence line of neighboring property (parcel 222306-9039, 15109 Cedar Grove Rd SE).
- "Terms and conditions of release and claims of release of claims and conveyance" between multiple parties and King County, relating to the Cedar Hills Landfill (Recording #s 198912201242 through 198912201247, documents not available on line).
- Right to "make slopes for cuts and fills in the original grading of Cedar Grove Road" granted to City of Seattle, affecting Log Cabin-9055 and -9057 parcels (8/19/1961, Recording # 5334356).
- A 1978 recorded document indicates that a fenceline encroaches several feet over the easterly boundary of the Log Cabin-9056 parcel (197804209007).

Northwest Pipeline Easement

The Northwest Pipeline Company (owned by Williams Pipeline Company) holds the pipeline easement described above. This easement affects Log Cabin-9055 and -9057 parcels. Two natural gas pipelines are buried through the site: a 26" pipeline was installed in 1956 and a 30" pipeline was installed in 1971. A third pipeline has been installed from the south into parcel 222306-9102 (a triangular parcel adjacent to

Log Cabin-9055). Although there are no current plans to do so, this third pipeline may be extended in the future through the Natural Area. Extension would involve digging a trench and laying the pipe; the pipeline company would try to restore the disturbed site to previous conditions (Jensen pers. comm. 2004).

Vegetation in upland areas of the pipeline is maintained by mowing on a three-year schedule; the last period of maintenance was in 2002 or 2001 (Jensen pers. comm. 2004). Maintenance of shrubs or trees in wetlands would be limited by local regulations, and work would be coordinated when necessary with local permit agencies. As of winter 2004, the pipeline company had no plans for maintenance of vegetation or pipeline infrastructure in the near future. When maintenance is necessary, the pipeline will contact property owners by mail to arrange access.

Trees are not allowed in the pipeline easement. Williams/Northwest Pipeline staff is willing to review planting plans in the easement area to approve the installation. Contact information is noted in Appendix 1.

Stewardship Easement

The Stewardship Easement held by CLC is attached as Appendix 3 to this document, which applies to the five parcels west of Cedar Grove Road SE. The Stewardship Easement indicates that King County holds responsibility for “ownership of the fee interest in and management of the property.” CLC bears responsibility for “compatible Stewardship Activities on the Property” (Section F of Stewardship Easement). King County is therefore responsible for all regular site maintenance activities in support of public use and short-term and long-term site management; this work will primarily be carried out by Parks staff (unless tasks are included in project work being performed for restoration purposes on the site). King County and CLC can both conduct habitat enhancement and restoration activities on the site.

Both the County and CLC are to “conserve, maintain, protect, or enhance the conservation values of the property.” Conservation Values are defined as “natural, scenic, open space, and education values including habitat for native fish and wildlife and the natural features and processes that sustain such habitat” (Section E).

CLC shall write a Stewardship Plan prior to undertaking any activity on the site other than information gathering and visits with prospective funders. The Stewardship Plan may incorporate this Site Management Guidelines document. The Stewardship Plan should include standards that govern CLC’s activities, identification of improvements and goals for property, and a process by which the County will review certain CLC activities.

The Stewardship Plan will be reviewed and approved by King County. The Stewardship Plan “shall be consistent with any applicable County labor agreements and civil service obligations” (Section 2.2).

A determination of the need to review the Stewardship Plan will be made in writing by CLC and King County every two years. CLC and King County will meet annually to discuss activities that have occurred or are planned for the property.

The Stewardship Easement does not limit King County’s activities on the site, except by the statement that “The County’s uses of and activities on the Property, including, but not limited to, allowing access by the general public, shall not be inconsistent with the Stewardship Plan.” The Easement prohibits a number of activities by CLC “unless permitted in the Stewardship Plan or otherwise agreed to in writing by the County” (Section 3.3).

Restrictions on transfer or conveyance of property are outlined in Section 9 of the Stewardship Easement. Implications of the Stewardship Easement on site management activities are further discussed in Part 6.

Part 3. Ecological and Physical Setting

This section describes the existing natural resources and ecological processes associated with the Log Cabin Reach Natural Area. Additional analysis and recommendations are presented in Part 6 and 7 below. Refer to Figures 1 and 2 for information discussed below.

Topography

Log Cabin Reach Natural Area is in the upper-middle portion of the Issaquah Creek sub-basin (Figure 1). Upstream of the site, the two main tributaries to Issaquah Creek, Holder and Carey Creek, drain headwater slopes near Taylor Mountain to the southeast and flow through narrow stream valleys to form Issaquah Creek. Issaquah Creek flows several miles through a broadening stream valley to Log Cabin Reach Natural Area.

The entire western portion of Log Cabin Reach Natural Area contains slopes that drop approximately 220 feet from the Cedar Hills landfill down to Issaquah Creek, across a distance of 500 to 1000 feet. The Cedar Hills Landfill is the topographic high point to the west of the site, and it marks the boundary between the Issaquah Creek system to the north and the Cedar River system to the south. From the landfill, slopes drop sharply to the north, east, and southeast. There is a forested buffer approximately 1000 feet wide between the landfill and the Natural Area's western boundary.

On the eastern side of the creek, the property's topography varies. The stream corridor is approximately 400 feet wide as it enters the site in Log Cabin-9055. The central section of the 9055 and 9057 parcels is relatively low in elevation and gradually slopes from the higher eastern portions of the site toward the creek. The eastern portion of Log Cabin-9055 supports a distinct hill adjacent to Cedar Grove Road SE.

The valley narrows gradually through parcels -9057 and -9054. The northern edge of Log Cabin-9057 rises up a steep hill to SE 148th St; this high elevation continues along the eastern edge of Log Cabin-9054 and -9053 parcels.

The stream corridor is relatively narrow through Log Cabin-9054 and -9053, and continues to flow between somewhat steep valley walls for at least 0.25 mile downstream of the site.

Soils

The King County soil survey (Snyder et al. 1973) maps the following soils at the site:

- Alderwood and Kitsap soils, very steep (AkF): This soil type is mixed Alderwood gravelly sandy loam and Kitsap silt loam. Slopes are 25-75%, with variable drainage and severe erosion hazard. This soil type is mapped in the entire western portion of the site, on the steep slopes on the left bank of Issaquah Creek (Log Cabin-9053, -9054, -9058, and -9055 parcels).
- Pilchuck loamy fine sand (Pc): Pilchuck soils are formed in alluvium and are excessively drained. Pilchuck loamy fine sand is a nearly level soil on terraces adjacent to streams, with slopes of less than 2%. Permeability is rapid; seasonal high water table is at 2-4 feet. This soil type is mapped surrounding the Issaquah Creek corridor on Log Cabin-9055, -9057, -9058, and -9054, and occupies the southern extent of Log Cabin-9057 and the eastern half of -9055.
- Kitsap silt loam (2-8% slopes) (KpB): Kitsap soils are moderately well drained soils formed in glacial lake deposits. Soils are usually located on terraces. KpB soils are found on low terraces. Permeability is moderate, and erosion hazard is slight to moderate. This soil type is mapped on the north part of parcel -9057, and the slopes on the east side of parcels Log Cabin-9054 and -9053.
- Kitsap silt loam (15-30% slopes) (KpD): This soil type is similar to KpB but is found on moderately steep slopes, with rapid runoff and severe erosion hazard. This soil type is located on slopes to the east of the Issaquah Creek corridor on Log Cabin-9053.

- **Mixed Alluvial Land (Ma):** This type includes multiple alluvial soil types that are too small to map individually in this area. Texture and permeability vary, but slopes are usually <2% and hazard of stream overflow is usually great. This soil type is located in the Issaquah Creek stream corridor in Log Cabin-9053 parcel.

Hydrology and Channel Morphology

This Natural Area is located in the Middle Issaquah Creek sub-basin. Adjacent sub-basins include the Holder and Carey Creek sub-basins upstream, two tributary sub-basins (McDonald and Fifteenmile Creek), and the Lower Issaquah Creek sub-basin downstream. Refer to Current and Future Conditions Report (King County 1991) for maps and descriptions of these sub-basins.

River Mile Measurements

There is no definitive source for river miles on Issaquah Creek. Four different sources of information are available. Discrepancies in measurement are evident in how each source notes the river mile location of the Four Creeks Ranch development that is located from the northern boundary of Log Cabin-9053, and extends downstream approximately one mile from the Natural Area:

- The Catalog of Washington Streams (Williams et al. 1975) indicates that the Four Creeks Ranch is located between approximately RM 7.0 and RM 8.0 of Issaquah Creek.
- The Current and Future Conditions Report (dated 1991) indicates that the Four Creeks Ranch is located between RM 7.3 and 8.3 (King County 1991, p. 7-12).
- The Basin Plan (dated 1996) indicates that the Four Creeks Ranch is located between RM 8.2-8.8 (King County 1996, p. 5-10).
- The King County DNRP GIS layer of river miles indicates that the Four Creeks Ranch is located between approximately RM 7.8 and 8.8.

Given that the measurements provided in more recent sources (Basin Plan and GIS) may reflect better technology in digitally measuring the stream (Klinka pers. comm. 2003), this document will rely on the King County GIS layers and the closely corresponding Basin Plan layers for river mile numbering.

According to the King County GIS layer, Log Cabin Reach Natural Area is located between approximately RM 8.8 and 9.6.

Issaquah Creek

The character of Issaquah Creek in the Middle Issaquah Creek sub-basin is described as follows in the Current and Future Conditions Report (King County 1991, p. 8-16).

“The channel flows through a broad alluvial valley, constrained only by Tiger Mountain Road to the east... The gradient throughout this long [approx. 8 mile] reach of mainstem Issaquah Creek is less than 1%, and the meandering channel is less sinuous than below the city. Gravels are free of fines and unconsolidated, providing excellent spawning conditions. An uneven pool:riffle character predominates; riffles appear to be slightly more frequent, a not entirely unexpected phenomenon, given that LWD is rare and unevenly dispersed in the reach...Braiding is apparent in many sections, particularly near RM 5.9, RM 7.0, RM 9.6, and RM 10.5.”

Upstream at RM 11-12, below the Holder-Carey Creek confluence, the creek is characterized by “large gravel bars and copious amounts of floodplain sediments” (King County 1991, p. 8-18). Sediment contributions from all tributary streams may have increased in frequency and quantity as a result of clearing and forestry operations in the upper watershed.

Bank protection is relatively minimal in this sub-basin. There are several localized areas of bank protection for residential development in the Four Creeks Ranch just downstream of the Natural Area (King County 1991 p. 7-12). This includes a King County capital improvement project (“Four Creek

Ranch Revetment”) within the Four Creeks Ranch development designed and built in the 1990s (Chin pers. comm. 2004). No information is available on current status or maintenance of this revetment.

There are also two areas of bank protection listed in the King County Flood Hazard Reduction Services’ river facilities inventory about 1 mile upstream near SE 156th St (King County GIS shapefile). The Dodge by Bridge revetment is a 50’ long rock facility that was constructed in the 1980s, with no maintenance agreement or access/repair easement. No construction information is available for the Momb revetment. (Zweig pers. comm. 2004) The Momb revetment is located on the parcel that may be a future acquisition (222306-9009, see page 2). A 1994 letter documents planned maintenance at Dodge by Bridge (also referred to as ‘SE 156th Street Bridge’) and at Momb (also known as ‘Cedar Grove Road Bridge’) revetments. (Lowthian 1994) These facilities are not regularly inspected or maintained by FHRS. (Zweig pers. comm. 2004)

Within Log Cabin Reach Natural Area, the creek is unconstrained by bank reinforcements and has several areas that support braiding and small side channels.

The mapped FEMA 100-year floodplain indicates areas expected to be inundated during the estimated 100-year flood event. (The 100-year floodplain and creek as depicted on Figure 2 are approximate locations only, due to limited accuracy of GIS data layers.) The mapped floodplain is approximately 600 feet wide within 1 mile upstream of the site, above the crossing of SE 156th St and Cedar Grove Road SE. Between SE Cedar Grove Road and into the southern portion of Log Cabin-9055, the mapped floodplain narrows to approximately 250 feet and includes areas of channel braiding and side channels. Within Log Cabin-9055, the mapped floodplain expands again to 450 feet and includes the large wetland area mapped on Log Cabin-9055 before narrowing to only 100 feet throughout the remainder of the site. The FEMA floodway is the area within and adjacent to the channel that is subject to the deepest and fastest flood flows (Clark pers. comm. 2004); this layer is not depicted on Figure 2 but lies within the 100-year floodplain extent. Current 100-year floodplain and floodway maps are more than a decade old; FEMA periodically updates its flood maps.

In-Stream Habitat Features

Within the site, the stream supports many in-stream habitat features such as side channels and accumulation of large woody debris (LWD). The northern (most downstream) extent of Issaquah Creek within the Natural Area supports a more complex in-stream structure than in the southern extent, including a log jam that is approximately 8 feet tall by 120 feet long, midchannel gravel bars, and pools. King County staff work at the site provided the following description of in-stream and side channel features (King County 2002):

“This section of Issaquah Creek has approximately 89 pieces of LWD per kilometer, an amount that is considered to be of ‘moderate’ quality compared to relatively pristine reference sites in the region. ...Despite the ‘moderate’ rating, there is a high recruitment potential for large woody debris. Additionally, two small log jams and one large jam (~35 meters) were encountered. In several places, large boulders in the stream also contribute to pool formation.

In the surveyed section of the stream, 12 side channels were encountered, typically associated with a small island. Side channels are an indication of channel or stream complexity and connectivity, both of which are good attributes of a ‘properly functioning’ stream system. Side channels can provide refuge from high flows (for both juveniles and adults) and predators, and they may also be a place where rearing juveniles can seek shade and shelter. Side channels, because they are slower flow, may be a source for food resources. They also may be a sink for fine sediment deposits.

Bars, islands and secondary channels are all features that create aquatic and riparian habitat of high quality. Several sand and gravel bars were also located throughout this reach. The presence of the gravel bars indicates a relatively loose streambed in which fish can excavate spawning redds. Additionally, the transport of new gravel cleans fine material out of the gravels so that water circulates through the egg nests.

...During a survey of a 0.97 km section of the stream, we recorded the amount of large woody debris and pool/riffle habitat. Generally, optimal habitat conditions include a roughly equal proportion of pools to riffles. In the nearly 1 km of reach surveyed, pools and glides comprised approximately 46 percent of the stream length (therefore, riffles comprised approximately 54 percent). Although these numbers are not exact, the proportion of pools to riffles certainly approaches those considered optimal conditions.

...One area in the stream was observed to have hundreds of caddisfly larvae on the cobble substrate. These benthic macroinvertebrates hold their position in the flowing stream by clinging to clean cobbles and gravels. Their presence in this reach indicates, among other things, that there is a somewhat stable hydrology present, otherwise the caddisfly larvae could not hold on to the rocks. These invertebrates are an important link in a healthy stream system because they both feed on leaves, twigs, and other pieces of organic matter that fall into a stream and become food for other species, like salmonids. Because they need lots of trees overhead to supply the materials, the presence of these bugs also indicates a good canopy cover.”

Channel Migration

Two zones of channel migration are described in the Current and Future Conditions Report (King County 1991, p. 7-12 to 7-14, 7-34) in the vicinity of the Natural Area. The first zone is an area of major migration with “channel shifts in excess of 150 feet over the 28-year interval” between 1961 and 1989. This zone is mapped 0.5 mile downstream of the Cedar Grove Road crossing within parcel Log Cabin-9055, and adjacent parcels to the south (2223069113 and 2223069009). The Current and Future Conditions Report notes that in this location the channel has shifted to the west up to 200 feet, in an area of that is “entirely undeveloped pasture” (King County 1991, p. 7-12).

The Current and Future Conditions Report (King County 1991, p. 7-14) provides the following description of channel migration in the reach that extends from the Mirrmont development (approximately one mile upstream of Log Cabin Reach Natural Area) into the Natural Area at the downstream end of the reach:

“This reach includes the most intense zone of channel migration in [the stream basin], with average rates of nearly 6 feet per year. The upstream-most 2000 feet was completely stable during this time, however, and the lowermost 3000 feet shows a few short reaches of near-stability separated by zones with shifts of about 50 to 100 feet.”

A second zone of channel migration displays a lesser degree of channel movement, but it has more proximity to a developed area. This zone is located in the Four Creeks Ranch development just downstream of Log Cabin Reach Natural Area, including the Issaquah/MacDonald Creek confluence. The area of channel migration begins approximately 500 feet north of the Log Cabin-9053 boundary. “This zone probably reflects a more subdued continuation of the first major zone discussed above.” Migration has been primarily about 40 feet and up to 75 feet, “consuming half or more of the setback of houses from Issaquah Creek... Channel migration rates average one to two feet per year, with the pattern dominated by the downvalley translation of entire meander loops” (King County 1991, p. 7-14).

The report notes that “just upstream, longer-term channel migration has left steep embankments along the right bank, a portion of which failed catastrophically in March 1991 and temporarily dammed the main channel” (King County 1991, p. 11-11). Although no specific locations of these embankments are given, they may be located within the Natural Area.

Tributaries

Issaquah Creek has two main tributaries in this sub-basin, both downstream of Log Cabin Reach Natural Area: Fifteenmile Creek on the right bank at approximately RM 7.5 and McDonald Creek on the left bank at RM 8.2. Upstream of the site, another small tributary is described in the Current and Future Conditions

Report (though not clearly mapped in stream maps or GIS layers): Pheasant Creek (Tributary #08.0178E) located near SE 156th St.

One small tributary is mapped within the Log Creek Reach Natural Area: Tributary #08.0214, listed as a 0.7 mile long left bank tributary in the Catalog of Washington Streams (Williams et al. 1975). This tributary is unclassified in the King County Sensitive Areas Map Folio (King County 1990). The tributary arises within the Cedar Hills Landfill property, within the forested northeast corner of the site. The tributary flows through private properties to the southwest of the Natural Area and enters the Natural Area for the last few hundred feet of its course. The location of this tributary was found during site visits for the production of this document.

An unmapped, possibly ephemeral, stream was observed during a January 2004 site visit flowing into the Natural Area from private property to the east. The stream originates somewhere east of Cedar Grove Road SE, flows for a short distance through the Log Cabin-9056 parcel, and is passed beneath Cedar Grove Road in a 36-inch concrete culvert approximately 50 feet south of the entrance to Log Cabin-9057 parcel. The stream flows through a culvert under the driveway and is culverted (30-inch concrete culvert) beneath an old road bed to enter a large blackberry-filled depression north of the driveway. The stream flows through a shrub and tree-lined corridor, is passed under an internal road at the Natural Area, and flows west into the wetland area within Log Cabin-9055 parcel. The approximate course of this stream is mapped on Figure 2.

Additional ephemeral or small perennial streams may also be present on site.

Wetlands

The Current and Future Conditions Report mapped many wetlands in this sub-basin. Most of these wetlands were inventoried in the King County Wetlands Inventory, although a number of uninventoried wetlands were also preliminarily mapped in the report (King County 1991, p. 8-18 to -19). Many of the mapped wetlands are located between one and two miles upstream of the Log Cabin site, along the riparian corridors of Issaquah Creek and its tributaries.

Within the Log Cabin Reach Natural Area, there is one wetland inventoried in the King County Wetlands Inventory: Wetland #11. King County staff provided the following description from 2002 field observations (King County 2002):

“The wetland area is dominated by soft rush (*Juncus effusus*) with scattered patches of *Eleocharis palustris* and *Typha latifolia* in the deeper water areas. Although there are a few patches of *Phalaris arundinacea* and yellow flag iris, the site as a whole is remarkably free of non-native invasive species. The wetland is nearly completely vegetated with sedges, grasses and rushes, with open water composing only a small portion (<5%) of the total site during our field visit. The open water portion of the site was in close proximity to Issaquah Creek and does not exceed .5m in depth in any location. It is unlikely that fish are currently present in this area. The ground is fairly hummocky on the upland periphery of the wetland indicating significant seasonal inundation. The hummocky areas may also be related to historic grazing within this area. The wetland is connected to Issaquah Creek by a series of old, inactive beaver dams. It is likely that if beaver were to recolonize the site they might re-establish the beaver dams and seasonally retain significantly more water than is currently present within the system, providing additional open water habitat in the area. In this regard, it should be noted that recent beaver activity was present a short distance upstream from the wetland outlet... Because of the dominance of emergent vegetation the site has a high potential for biofiltration and nutrient uptake.”

Additional small wetland areas and seeps may be present throughout the site but are not mapped on local inventories and were not identified in field work.

Vegetation

The Current and Future Conditions Report (King County 1991, p. 8-18) provides a general description of vegetation in the sub-basin:

“The riparian corridor through this reach of mainstem Issaquah Creek is extensive and dominated by deciduous species. The corridor varies from a width of 30-50 feet per bank to over 200 feet per bank, interrupted by pastures, highways, and residences. Alder, cottonwood, Oregon ash, and willow dominate the canopy; salmonberry, snowberry, elderberry, and Indian plum dominate the shrub layer; and evergreen violet, swordfern, youth-on-age, and nettle are represented in the ground layer. Cedar, hemlock, and fir are rare and discontinuous, but evidence of their historic presence is provided by the many large stumps, now sprouting saplings or huckleberry.”

Much of the western and northern portions of the Natural Area support mature second-growth forest, dominated by western red cedar, bigleaf maple, Douglas-fir, alder, and hemlock, with a well-established understory layer supporting a variety of native species. Groundcover varies depending on local light and soil conditions (King County 2002). A species list compiled from 2002 field work is included in Appendix 2.

On the steep slopes to the west side of Issaquah Creek, the northern two parcels (Log Cabin-9053 and -9054) support a mixed and diverse overstory of conifers and deciduous trees, with a well-developed understory of vine maple, devil’s club, salmonberry, and other typical native species. See photograph in Figure 3. To the south, on the western portions of parcels Log Cabin-9058 and -9055, review of aerial photos and observation from across the creek indicates that the canopy vegetation appears to be less diverse in size, age, and species composition.

On the eastern side of the creek on Log Cabin-9053 and the northern portion of -9054, the forest appears to be of an equal or greater level of maturity as on the northwest portion of the site. King County staff



Figure 3: Forest in NW corner parcel (Log Cabin-9053). Photo taken 10/03



Figure 4: Meadow view in Log Cabin-9055 parcel. Photo taken 8/04.

observations on the site in 2002 provided the following description of vegetation in this area (King County 2002):

“There is a significant stand of mature trees along an approximately 40% slope down to the north bank of Issaquah Creek. This area is approximately one acre in size with 95% canopy closure; the mature trees include a Sitka spruce that measures 1.8 m dbh, a Douglas-fir (1.7m dbh) a hemlock of approximately the same size and four mature cedars all > 1.5m dbh. There is no shrub layer in this portion of the forest, rather the ground layer is dominated by 80% sword fern and downed large woody debris in varying stages of decay class. This area slumps out to a bench above the creek; in the slump area, where light enters the forest, the understory vegetation is dominated by salmonberry, vinemaple and devil’s club on moist soil. There is an exposed sand/cobble bank that drops approximately 20-30 feet down to the creek. Although this stand of trees is unique, the site as a whole contains significant mature trees throughout, many in the 1.5m dbh range.”

The eastern side of the creek from Log Cabin-9054 southward supports a variety of habitat types. Along the creek itself, there is a vegetated corridor of primarily deciduous trees (alder, maple, black cottonwood) with occasional conifer species. The understory composition varies in the riparian corridor, including areas of native shrub and herb vegetation, as well as areas with higher proportions of invasive species such as dense blackberry, patches of knotweed, and reed canarygrass. See photograph in Figure 5.

In the upland portions of Log Cabin-9054, -9058, and -9057, much of the land supports a combination of open pasture, stands of forest or shrubs, and large patches of blackberry. See photograph in Figure 4. In the southwest corner of Log Cabin-9057 and central portion of Log Cabin-9055 the upland area slopes gently downward to Wetland 11, an area of approximately 5 acres in size surrounded by approximately 10 acres of upland/pasture (King County 2002). Wetland vegetation was described in the “Wetlands” section above.



Figure 5: Issaquah Creek view in Log Cabin-9058 parcel. Photo taken 10/03.

Invasive species distribution

Invasive species represent a significant component of vegetation in riparian and upland areas, particularly in disturbed portions of the site. Himalayan and evergreen blackberry are distributed throughout the site in the riparian area. Pockets of Japanese knotweed are located along the creek. Policeman's helmet has been noted along the creek between the point of pipeline crossing in Log Cabin-9055, and sporadically along the creek through where RM 9 is marked on Figure 2 (site visit August 2004; Miller pers. comm. 2004). There are small amounts of other invasive species in riparian areas such as butterfly bush, holly, ivy, tansy ragwort, and comfrey. Upland meadows contain thistle and likely contain other invasive species. Non-native species are noted on the Appendix 2 species list. The prevalence of invasive species in the riparian corridor is an indication that the creek itself is a mode of transport for weed dispersal, in addition to other methods such as wind and animal dispersal.

Tansy ragwort (*Senecio jacobea*) and policeman's helmet (*Impatiens glandulifera*) are the only listed noxious weeds identified at the site for which control is required (Chapter 17.10 RCW and King County Noxious Weed List). Tansy ragwort was noted on the stream bank and mid-channel islands through much of the site. Policeman's helmet was observed on the stream bank and on low banks above the water through much of the site.

Fish and Wildlife

The "Known Freshwater Distribution of Salmon and Trout" maps for WRIA 8 indicate that Chinook, coho, sockeye salmon, cutthroat, and steelhead trout are present in Issaquah Creek in this vicinity (King County 2001a). Kokanee presence has been mapped in the downstream reaches of Issaquah Creek, but not in the vicinity of the site.

The Current and Future Conditions Report (King County 1990, p. 8-16) provides the following description of fish use in this sub-basin:

"[Rare and unevenly dispersed] LWD...invariably produces foci of hydraulic and habitat diversity, and the rare debris jam fairly abounds with fish. Data collected from an October 1990 habitat survey bear this out quite clearly... [In braided sections] these multiple channels often provide excellent summer rearing habitat and act as refuge for juveniles escaping high winter flows."

The Basin Plan maps the northern and southern extents of Issaquah Creek in the Natural Area as "Concentrated Salmonid Spawning Areas" (King County 1996 Figure 5-4).

Information describing the in-stream habitat under "Hydrology and Channel Morphology: In-stream habitat features" above described the contribution of pools and off-channel areas to fish use (King County 2002).

Log Cabin Reach Natural Area is identified as part of a Wildlife Habitat Network in the King County Comprehensive Plan.³ The wildlife habitat network connects this site to the City of Seattle's 90,000 acre Cedar River Watershed and Taylor Mountain to the southeast, to Tiger Mountain to the east, and Squak and Cougar Mountains to the north and northwest (see Figure 1).

³ The King County Wildlife Habitat Network is described in the 2004 update to the King County Comprehensive Plan as a method to "identify and protect critical fish and wildlife habitat conservation areas, [and] to link those critical habitat areas and other protected lands through a network system." (King County 2004, p. 4-19) The network is intended to provide some degree of landscape-level protection for wildlife species, to maintain wildlife as viable components of ecosystems, and to facilitate wildlife movement between large habitat patches. This approach creates a network of natural lands across the landscape by linking contiguous blocks of ecologically significant natural resource areas (hubs) with natural corridors through adjacent critical habitat, open space tracts, and wooded areas. Ideally, these corridors would enable terrestrial populations to intermingle and disperse from east to west and north to south within the County.

A species list of terrestrial and aquatic plants and animals occurring or likely occurring on the site is included as Appendix 2. The following species of importance (as designated by King County) are known or likely to inhabit the site: red-tailed hawk, pileated woodpecker; band-tailed pigeon, red-legged frog, beaver, Columbia black-tailed deer, bear, cougar, and elk. Fresh water mussel are known to occur on the site historically (Anderson pers. comm. 2002) and a mussel was found during a site visit in June 2002 (King County 2002).

According to the previous owners, the wetland area contained open water habitat that supported waterfowl use. King County staff work in 2002 indicates that “in its present state the wetland provides significant habitat function for birds (red-wing blackbirds, cedar waxwings, marsh wrens) and likely provides seasonal amphibian breeding habitat (northwest salamander, long-toed, red-legged frog, chorus frog)” (King County 2002). Upland use was described as follows:

“During recent site visits, a colony of rough-winged swallows (four nesting pairs with young), a red-breasted sapsucker feeding its young, a pair of kingfishers displaying nesting behavior and an adult and juvenile dipper were observed. ... The parcels contain stands with late successional characteristics that typically support northern goshawks, Vaux’s swifts, pileated woodpeckers, Hammond’s flycatchers, pine grosbeaks, and Townsend’s warblers. ... The mix of ages of the trees and the combination of live and dead standing and down woody debris provides foraging and nesting for numerous bird and amphibian species, as well as bats.”

Part 4. Public Use and Infrastructure

This section describes public use, access points, and site infrastructure such as trails, roads, and structures at Log Cabin Reach Natural Area.

Access, Roads, and Trails

The main point of access is on the eastern edge of the Log Cabin-9057 parcel, at a driveway on the west side of Cedar Grove Road SE. There is space to pull at least two cars off the road at that point. A gate locked with a standard King County Parks gate lock prevents vehicle access to the site. From this entrance, an unpaved road winds through Log Cabin-9057 leading west and north to the log cabin near Issaquah Creek. This main road will be maintained by Parks staff for passage into the site (i.e. vegetation cut back and surface maintained as needed) to at least the vicinity of the log cabin.

There are no other trails at the site maintained by Park staff. There are no other locations that allow general public access to the site. Informal trails may exist from points of road intersection (229th Drive SE and SE 148th St) but there is no parking and this portion of the site is not intended to support public use.

From the south, the natural gas pipeline described in Part 2 extends toward the site from SE 156th Street (along the pipeline-owned parcel 222306-9102), but Issaquah Creek prevents northward access from the easement.

Infrastructure

An existing house, barn and outbuildings on the eastern portions of Log Cabin-9057 and -9055 were demolished in spring 2004.

A small wellhouse was retained in the vicinity of the former house. The Department of Ecology has granted King County the right to use the well under the following restrictions. No permit is required for use. The use should be limited to ½ acre or less, non-commercial use. Restrictions on use may be imposed in the future based on local groundwater levels. Once King County no longer has a need for the well, King County is to abandon the well per Department of Ecology guidelines (WAC 173-160-415 through – 465). (Halverson pers. comm. 2004)

The log cabin is located on the Log Cabin-9058 parcel, within 200 feet of the right bank of the creek. The log cabin is not eligible for historic designation.

Old fence posts and wire fence (including a limited amount of barbed wire) are presently scattered throughout the site. Many of these fences are in relatively inaccessible areas, though some are in areas that may experience more use.

Portions of the western boundary along the landfill may be fenced with chain link fencing that is owned by Cedar Hills Landfill. The landfill boundary with adjacent properties to the south of Log Cabin-9055 is fenced. King County staff have not followed the fence line through the site to determine if it is intact throughout. However, towards the north end of the site (within either the Log Cabin-9053 or -9054 parcels), staff located a fence line runs to the south and to the east from King County property; this fence may be the same continuous fence line along the western boundary.

Public Use

Primarily the site is used for passive recreation uses such as walking and nature observation. At the time of writing, the site shows limited evidence of public use over most of the property. Occasional small trails or litter have been observed in various areas of the site, but most of the site appears to support little use. This property has only been in public ownership since December 2003; public use is expected to increase in the future with more time in public ownership.

Inappropriate uses of the property have been observed since acquisition, although these uses have likely been ongoing when in private ownership. At the northwest corner of Log Cabin-9057, there is evidence of illegal use by all-terrain vehicles on the side path that leads from the log cabin to the 148th St. vicinity, and on slopes and lower-elevation wetland areas in this vicinity. Evidence of recent use was observed during fall 2003 and winter 2004 site visits. Other problem uses have involved vandalism of the log cabin and other structures.

Part 5. Site Use Chronology

The log cabin was used until King County's acquisition as an occasional summer vacation home by the Anderson family, who have owned the site since the 1950s (King County 2002). A caretaker resided in the house that is to be demolished on Log Cabin-9057 and -9055 at the time of acquisition.

Part 6. Analysis

The purpose of this section is to provide a foundation for developing recommendations that meet the responsibilities of King County and CLC to conserve, maintain, protect, or enhance the conservation values of the property, and to meet the NRL program mission of protecting the ecological value of lands within Log Cabin Reach Natural Area.

Development of Restoration Recommendations

Field work by King County staff has generated site characterization, a partial site inventory, and scoping of potential restoration projects. Preliminary site restoration recommendations are mapped on Figure 6, primarily focusing on invasive species removal and understory planting in disturbed areas of the site.

King County Capital Projects and Open Space Acquisitions (CPOSA) staff, consulting with the Basin Steward, NRL, Parks staff, and CLC, has initially scoped restoration work for the meadow and wetland area of the site. Initial small-scale projects were implemented winter/spring 2004, and will be further implemented as funding and staff is available, through the Small Habitat Restoration Project (SHRP) program of King County. More detailed site assessment by appropriate staff (King County CPOSA or Watershed Ecological Assessment (WEAT) staff, or CLC) will allow the development of larger-scale

projects primarily targeting the riparian corridor and the wetland. New information gathered should inform review of current and development of subsequent restoration recommendations for the site.

CLC will work with King County staff while developing its Stewardship Plan. King County and CLC should ensure that the activities and recommendations described in the Site Management Guidelines and the Stewardship Plan are complementary and consistent, and reflect any restoration priorities that have been identified at that time.

Implementing Restoration Recommendations

King County and CLC will notify each other of activities and ensure restoration activities are complementary. There is opportunity for both agencies to support an overall restoration plan with funding and staff and/or volunteer time. When projects are identified, they can be allocated between the agencies depending on available resources and in accordance with King County labor requirements.

Habitat restoration/enhancement projects by King County and CLC staff should be coordinated through the Parks Resource Coordinator and NRL. There are three types of permits or approvals issued by King County Parks Property Management or King County Real Estate Services for a proposal to alter a Natural Area (Nunnenkamp pers. comm. 2004; Thompson pers. comm. 2004):

- Typically, project proponents within DNRP need to submit a pre-application form to Parks property management that documents restoration/enhancement activities and establishes a monitoring timeframe, and an “approval memo” is issued by Parks property management.
- Project proponents external to DNRP typically need to submit a special use permit application to both Parks property management staff and King County Real Estate Services documenting the same information, and a “special use permit” is issued by Real Estate Services.
- In situations where the applicant holds a property interest in the site (such as CLC’s ownership of the Stewardship Easement) an application similar to the special use permit is made to both Parks property management staff and King County Real Estate Services, and a “consent permit” is issued by Real Estate Services in cooperation with Parks property management.

CLC’s Stewardship Plan will probably provide adequate documentation of activities for approval memo or special use permit issuance; this determination can be made upon completion of Stewardship Plan (Nunnenkamp pers. comm. 2004). In general, clear responsibility for long-term maintenance and monitoring of restoration work should be agreed upon during project planning. Maintenance and monitoring will be performed by the staff responsible for the project during the permit monitoring period unless alternate arrangements are made with Parks staff.

CLC’s activities on the site should comply with King County labor requirements. King County Labor Management Committee (LMC) should review CLC’s Stewardship Plan or other appropriate information that documents planned activities on the site (providing information such as projects, staffing, schedule, type of work involved, funding). General guidance as to how CLC would need to coordinate their activities with King County is provided below; further determination of appropriate Parks-CLC relationship on projects should be made in the future by LMC review of Stewardship Plan or review of project proposals (Wallace pers. comm. 2004):

- Grant-funded capital project activities can be implemented similar to how King County would implement Small Habitat Restoration Projects. The project could be designed and implemented on site by a paid or volunteer crew (LMC review should ensure this allocation of work is in accordance with labor agreements). The project would be coordinated with Parks, and there may be an ability to use Parks equipment or staff time for project or ongoing monitoring work (with compensation).
- Volunteer-staffed activities organized by CLC will need to be under the leadership of the Resource Coordinator.

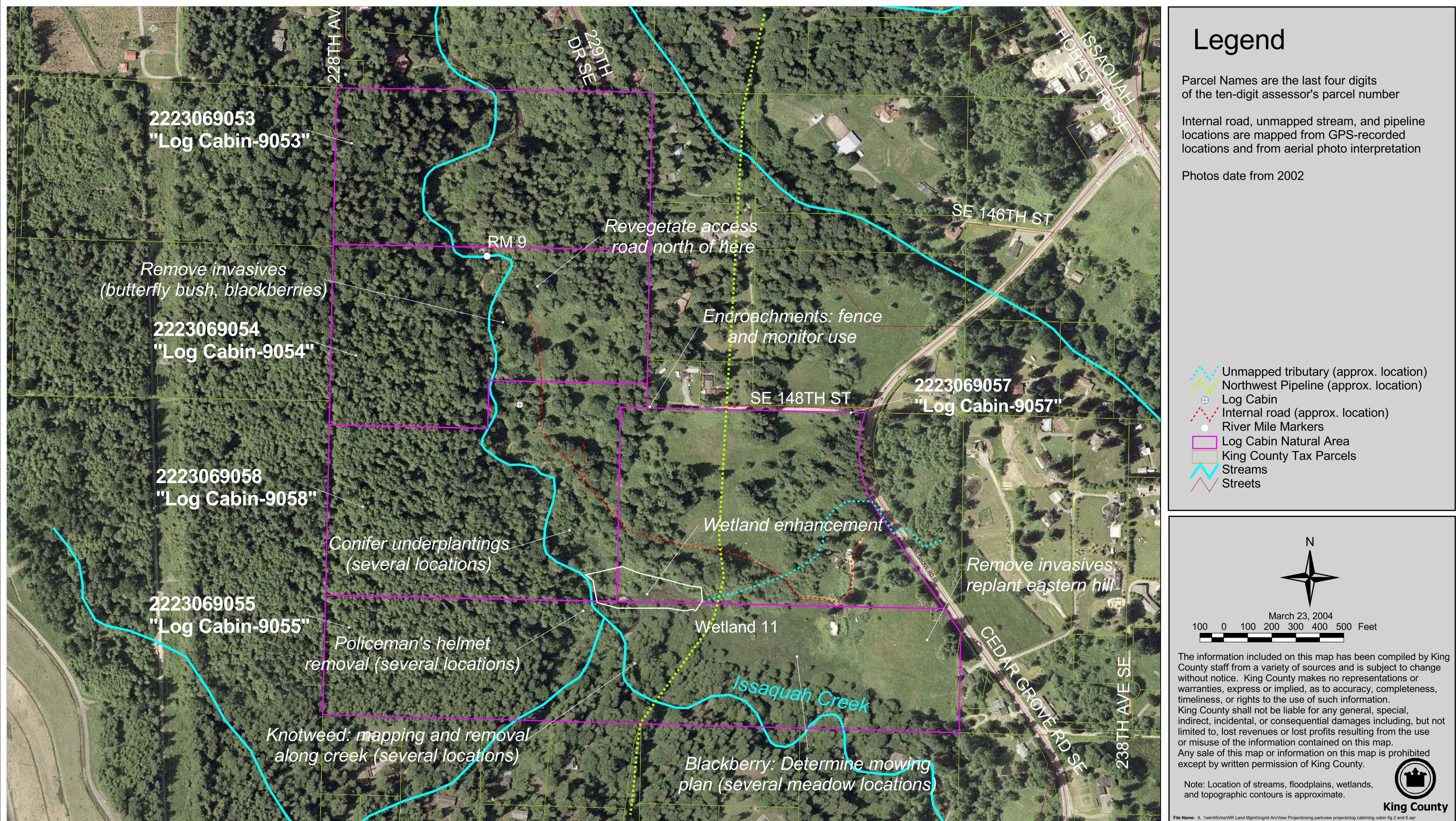


Figure 6

Log Cabin Reach Natural Area: Preliminary Site Restoration and Maintenance Priorities

- Activities traditionally regarded as site maintenance shall remain the responsibility of Parks crews.
- The Adopt-a-Park program may provide an established format for CLC to formally adopt certain types of projects. Individual volunteers dedicating extensive time on site may enroll in the Park Ambassador program.

Conditions of Stewardship Easement

The Stewardship Easement provides guidance as to appropriate roles for King County and CLC on the site. Additional guidance on roles and responsibilities may be derived from the Site Management Guidelines, the Stewardship Plan, or other documents produced by the County and CLC.

Ongoing actions required of CLC and the County under the easement include the following:

- Communicate about planned restoration activities on the site (specifically, the easement states that the County and CLC are to coordinate “activities identified in the Stewardship Plan” (Section 5.3));
- Meet annually to discuss recent and planned activities;
- CLC is to update the Stewardship Plan every two years (unless the County and CLC agree in writing that no update is necessary);
- The County and CLC “will promptly give the other notice of problems or concerns arising in connection with the parties’ actions under this Easement or the use of or activities or conditions on the Property” and will meet within 15 days of this request for a meeting (Section 8.1).

Species of Concern

The site supports Chinook and coho salmon, listed as threatened and candidate species respectively under the Endangered Species Act (ESA). Bald eagles, listed as threatened under ESA, use the site. Additional species of concern, sensitive, or candidate species under Washington and/or federal regulations may occur at the site (such as bats). Sensitive plant species that may occur at the site include *Cimicifuga elata*, *Hypericum majus*, and *Utricularia intermedia*. The potential presence of these sensitive species makes habitat preservation and restoration management priorities at the site.

Restoring Ecological Processes, Structure, and Function

Restoration activities should consider the relationship of ecological processes, structure, and function on the site. Ecosystems and habitats suitable for particular species are the result of various geologic, hydrologic, and biologic processes acting on structural characteristics of the system over time and space (King County 2003). Examples of processes may include the movement of water, sediment, nutrients, or energy; structure may include vegetation composition, food webs, or water chemistry; and function may include nutrient cycling and the provision of a diverse array of habitats.

Issaquah Creek and riparian corridor

Issaquah Creek and its riparian system are in relatively healthy condition through the site. Issaquah Creek flows through the site unconfined by bank hardening or artificial channelization. In many areas of the site, the stream shows active lateral movement through its channel. Steep slopes and exposed cliff faces along the banks through Log Cabin-9054 would likely be a source of gravel and sediment contribution to the stream. There is regular contribution of woody debris and organic material to the system from the surrounding riparian zone. The riparian system along the creek primarily supports mixed deciduous and coniferous forest of various ages and species, often with a dense shrub understory. The composition of native trees and shrubs in the riparian corridor would be enhanced by conifer underplanting in combination with invasive species control in these areas.

Initial site work begun in winter 2004 by CPOSA includes selective manual control of blackberry and planting of Sitka spruce along the riparian area. Plantings should represent the historic vegetative communities commonly associated with forested riparian areas in western Washington and at the site in

particular. The restoration work should maintain (or increase) structural complexity, support historic levels of plant diversity, and provide multiple canopy layers in order to provide a variety of vegetative and physical features that would provide a number of niches for wildlife.

Invasive species with limited range and population should be controlled to prevent further spread (e.g. policeman's helmet, butterfly bush, holly, ivy, tansy ragwort, comfrey). The species that are more widespread in the riparian area may be controlled selectively over time. Initial site work is targeting the isolated populations of invasive species, and provide selective removal of the more widespread invasive species in the riparian corridor. GPS mapping of Japanese knotweed populations along the stream will help to locate these sites for control.

The WRIA 8 Chinook Salmon Conservation Plan Draft Work Plan (WRIA 8 Service Provider Team 2004) made a habitat enhancement recommendation for this vicinity (Appendix H, p. 1, Middle Issaquah Reach 11). "Log Cabin Site Restoration (RM 8.4-10): minor restoration needed for this protected site. Remove non-native plants and plant with native vegetation. Potential site for removal of bank hardening in upper portion of property. Addition of LWD initially called for in NTAA but reach has extensive LWD and additional LWD may not be needed. Some old riprap exists in the upper portion of the site."

There are no specific plans or timeframe for implementing these Draft Plan recommendations at this time. As projects are prioritized and funded by King County (or other implementing agencies), those projects that are located on (or located nearby but that affect ecological processes, structure, function, or public use of) the Natural Area will need to be reviewed by NRL to ensure that the project is in keeping with the goals and management of the site.

Wetland

The wetland system in the meadow of Log Cabin-9055 has likely been affected in the past by the installation and maintenance of the natural gas pipeline, and possibly by farming activity in the past, but the system appears to be supported by a tributary stream and sub-surface water and appears to be relatively intact in terms of its hydrologic processes.

A number of wetland enhancement activities could be performed as prioritized and funded on the site, although they are not necessary for management. Enhancement work could include planting trees or shrub species along the southern border of the wetland or along the southern wetland edge to provide greater habitat interspersation (King County 2002). Consideration should be given to whether species planted on the southern edge of the wetland would affect the light exposure of the overall wetland site.

Future disturbance to the wetland may occur with gas pipeline maintenance or extension of the third pipeline. Vegetation permitted in the easement is limited to shrub and herbaceous species. Because of the probability of future disturbance, most restoration activities should be focused in portions of the wetland outside of the pipeline easement.

Upland forest and meadows

The open meadows at the site provide habitat for many wildlife species. Blackberry patches in the meadow areas may quickly encroach on the site if not controlled regularly by mowing. Given the extent of blackberries throughout the site, mowing priorities (location, method, frequency) will need to be set by King County staff. Restoration activities by King County CPOSA, CLC, or volunteers should be coordinated with mowing plans.

The hill on the east part of Log Cabin-9055 above Cedar Grove Road supports open meadow, with a limited area of Scot's broom and native shrub and tree species on the eastern slopes. These eastern slopes are an early target for restoration work to remove invasive species (invasive removal has occurred Winter 2004) and to plant Douglas-fir trees to create a treed buffer between the site and the road (scheduled to occur in Fall 2004).

Additional restoration or invasive removal work may be planned in the future as prioritized and funded.

Establishing Reference Data

The high quality of the habitats represented at this site would make this site “an excellent reference standard for lowland mature mixed-coniferous forest. Monitoring of the site should be undertaken to survey for the presence of birds, amphibians, plants, fish, and animals currently using the site. This type of monitoring would be invaluable in establishing a reference data set for the site and the surrounding area” (King County 2002). The Watershed and Ecological Assessment group of King County could consider gathering reference data to inform restoration and enhancement projects on site and in the area and to allow King County to monitor the site over time.

Public Use and Site Maintenance

Access points to the site should be monitored regularly for trash and evidence of use; Parks staff should verify boundary corners and fences as well. The level and types of public use will be observed by Parks staff during their site work. By monitoring changes in public use over time, land use managers will be able to observe the types of use and impacts on the ecological systems. These changes will alert them to needs for management adjustments.

Public Use

The site is appropriate for passive recreational use, such as walking or nature observation. Areas most appropriate for public use are the fields in the south and western portion of the site, the main road/trail through the site, and the river overlook at the end of the road. Most of the recreational use of the site should remain confined to the upland areas and away from more sensitive portions of the site. The ecological importance of the wetland and stream corridor through the site merit limited public use in those areas.

This site provides opportunity for public education, although the level and distribution of use should be balanced with concern for protecting habitat quality. Volunteer restoration activities could be facilitated by King County or CLC staff. If future use is to include large vehicles such as buses, issues of appropriate design for driveway, parking areas, or access points may need to be addressed at that time.

Interpretive sign boards may provide visitors with educational and directive information about appropriate site use. Information on signs could include: what is an ecological site; why King County purchased this site; what plants, fish, and wildlife use the site; why the site is important to protect; how the public can contribute to site preservation.

Addressing Inappropriate Use

Inappropriate and illegal use by four-wheel drive vehicles off of SE 148th St was observed on the site since acquisition. The northwest corner of Log Cabin-9057 off of SE 148th St was surveyed and fenced along the boundary with the adjacent property in Spring 2004. Natural Area boundary and rules signs were posted at the boundary. A maze-style pedestrian gate may be installed in the future along SE 148th to provide a pedestrian access point. In the future, similar maze-style gates may be installed at each side of the property for pedestrian-only access at appropriate points.

The log cabin will remain on site unless continued adverse use requires its removal. Since the log cabin is not eligible for historic site designation, there would be no prohibition to its removal. Depending on the interest of potential recipients, it may be appropriate to find a community organization or publicly owned location at which to move it if necessary.

Additional Site Maintenance Issues

As noted above, determination should be made by King County staff as to the frequency and location of blackberry mowing. Pending further decision, a schedule of mowing the perimeter of the blackberry clumps in the main fields (to either side of the road through the property) once per year would be a

minimum level of treatment. Further decisions may be made for specific maintenance of vegetation when more data has been gathered or restoration decisions made by King County and CLC.

Where remnant fencing within the site is deemed by Parks or DNRP staff to present a risk to the public or may be easily taken down, the material should be removed. In locations where there would be limited use, the fencing will be allowed to remain and fall down in place.

Part 7. Management Goals, Objectives, and Recommendations

The objectives and recommendations in this section are derived from the standard practices for most NRL sites. NRL staff will revise the recommendations for Log Cabin Reach Natural Area as new information from baseline inventory, assessment, and site monitoring programs and other initiatives becomes available for use in land management decisions.

Goals for Log Cabin Reach Natural Area

The goals for all King County Ecological Lands are to:

- conserve and enhance ecological value, and
- accommodate appropriate public use that does not harm the ecological resources on site

The objectives and recommendations that follow are designed to support these goals at the site.

Management Objectives and Recommendations

Objective: Maintain ecological integrity of the site

Recommendation: Ensure that management and public access support the regional ecological value of site

Decisions about site management and public access should consider the ecological role of the varied habitats at the site, such as: mature second-growth forest with old-growth characteristics; active channel migration areas, complex channel structure, and dense deciduous forest in the riparian corridor; open field and wetland habitat for small mammals and birds. These characteristics support maintaining a low level and intensity of public use at the site, directed to upland portions of the site and the main trail.

This overarching recommendation is carried out through the various recommendations below.

Objective: Develop and implement ecologically based protection and restoration actions

Recommendation: Perform selective ecological site assessments

NRL will work with King County basin steward, CPOSA, and resource coordinator staff and with CLC to identify geographic areas for site assessment work that Watershed and Ecological Assessment Team (WEAT) staff anticipate performing in 2004. The areas selected for this work should help to provide baseline information from which to develop management recommendations. Additional site assessment work may be performed by CPOSA or CLC.

Recommendation: Develop recommendations for habitat enhancement from assessment information

King County and CLC should use inventory/assessment information to develop specific actions that meet the purpose and goals of sites identified as King County Ecological Lands. Incorporate this new information and recommendations into updates of Site Management Guidelines and Stewardship Plan. Initial enhancement activities implemented in Spring 2004 included invasive species mapping, control, and conifer underplanting.

Project areas that have been preliminarily identified include invasive species control along the riparian corridor, blackberry containment and/or removal in the meadows, and wetland enhancement.

As projects on the Natural Area are prioritized and funded by King County agencies outside of the Natural Resource Lands group (or by other implementing agencies), projects should be reviewed by NRL through the “Application to Alter Parks Division and NRL Managed Properties” process to coordinate site management with project work.

Recommendation: Maintain existing and establish new planting projects

Any party conducting planting projects (King County CPOSA, contract staff, or CLC) will be responsible for monitoring and maintaining plantings or invasive removal projects installed as part of their respective project work for a minimum of three to five years (unless alternate arrangements are made with King County Parks staff). This monitoring period should be established in any special use permit, consent permit, or approval memo issued for the activity, by DDES permit conditions, or by SHRP program standards. After the monitoring period is completed, King County staff including Resource Coordinator, NRL, and responsible project staff, should determine if additional project maintenance is required.

Recommendation: Coordinate restoration activities in the pipeline easement with Northwest Pipeline Company

Contact Northwest Pipeline Company for review of restoration projects that will occur in the easement.

Recommendation: Consider collecting data to establish a reference site for the area

Watershed and Ecological Assessment staff may consider gathering data at the site to establish Log Cabin Reach Natural Area as a reference site for ecological conditions in the area.

Objective: Contain spread of invasive vegetation

Recommendation: Monitor and control invasive vegetation

Park staff should monitor, contain, and where possible reduce the spread of noxious and (when feasible) invasive plant species that are present at the sites. This work is recommended particularly in those areas where planting projects have occurred.

Recommendation: Establish mowing plan for blackberries

King County staff, including CPOSA and Parks Resource Coordinator should determine appropriate mowing plan for blackberries in meadow areas.

Objective: Protect the site from inappropriate public uses

Recommendation: Monitor the site for inappropriate activities

Park staff should monitor the site for encroachment, dumping, and trash and respond as necessary to maintain a clean and safe property. Access points and the log cabin structure should be monitored approximately once a week for trash and evidence of use.

Boundary corners and fences should be visited four times per year, although with initial acquisition and site work more frequent monitoring may be required. The area of fencing and new signs at the northwest corner of Log Cabin-9057 parcel will need to be monitored at least monthly during 2004 to determine whether inappropriate uses are occurring in this location.

Objective: Allow current level of passive recreation opportunities at the site

Recommendation: Monitor public access

Walking and nature observation, primarily in upland and trail portions of the site, is appropriate at this site. Park staff should note changes in visitor numbers and types of recreational activities at the site, and observe any noticeable visitor impacts on the ecological values of the site. This information should be reported at least annually to King County Natural Resource Lands Management Staff responsible for

updating site management guidelines. If public use increases in its extent and intensity, King County Resource Coordinator, Basin Steward, NRL, and CLC may need to make decisions about appropriate ways to direct public use, provide education about site stewardship, or alter access/parking off of Cedar Grove Road SE to support use at a level that continues to conserve site resources.

Recommendation: Maintain safe conditions for public use

Parks staff and CPOSA (or contract) staff performing restoration or invasive control work should remove old fencing when it is in a location that may pose a hazard to site users, or has fallen down.

Objective: Uphold King County and CLC obligations under Stewardship Easement

Recommendation: Develop and approve Stewardship Plan

CLC will write a Stewardship Plan for the site, using these Site Management Guidelines and working with King County where appropriate to develop the plan. King County will review and approve the Stewardship Plan.

Recommendation: Meet at least annually to discuss King County and CLC activities at site

CLC and King County will meet at least annually to discuss recent and upcoming management activities at the site. Discussion should include coordinating who will perform management/restoration activities, and timeline for activities.

Recommendation: Update Stewardship Plan every two years

CLC is required to update the Stewardship Plan every two years, unless the County and CLC agree in writing that this update is not necessary.

Recommendation: Ensure that King County labor agreements are respected in allocation of site work

King County and CLC will make sure that the Stewardship Plan and agreements as to activities that will be performed by CLC adhere to King County labor standards. This will involve consulting with the Parks Labor Management Committee when responsibilities have been identified to ensure that labor agreements are preserved, preferably at the time that Stewardship Plan is completed.

Objective: Update Site Management Guidelines

Recommendation: Update Site Management Guidelines at least every five years

King County NRL will update Site Management Guidelines at least every five years, or earlier if appropriate based on new inventory added to site or changes in management strategy. NRL will coordinate review and approval with (at a minimum) Basin Steward, CPOSA, Resource Coordinator, and Flood Hazard Reduction Services staff within King County DNRP, and with CLC.

Objective: Resolve property ownership issue

Recommendation: Resolve issue of possible surplus of parcel east of Cedar Grove Road

By spring 2005, NRL, Basin Steward, and Parks Resource Coordinator should determine whether parcel 222306-9056 on the east side of Cedar Grove Road should be surplus and removed from the site, or retained as part of the Natural Area. The decision should consider: additional maintenance/management burden of property; ecological resources on the parcel and connection of those resources to the rest of the Natural Area; probable impacts of development at the parcel.

Implementation

Many of these recommendations pertain to ongoing site maintenance and short-term management. These short-term recommendations are currently being implemented through actions by the Parks Resource Coordinator. Table 3 presents the time frame and sections responsible for recommendations.

Recommendations that address long-term management will need to be developed when funded and prioritized by DNRP management (within the work programs of NRL, WEAT, Basin Stewards, CPOSA) and by CLC. As new information is gathered for the site, restoration plans may be developed following adoption of these site management guidelines as separate documents or within CLC's Stewardship Plan. Projects should be consistent with management objectives and approaches described above and in the Ecological Lands Handbook. Funding for restoration projects may be available through Surface Water Management CIP funding, salmon conservation planning funds, or other grant programs.

Table 3. Matrix of Management Recommendations

X indicates group that will be involved in coordinating or carrying out activity.

(X) indicates group that may be involved in activity.

Recommendations	year	NRL staff	Park Resource Staff	Basin Steward	CPOSA	WEAT	CLC	KC Parks LMC	FHRS
Priority One									
Develop and/or approve Stewardship Plan	2004	X	X	X	X		X	X	
Perform ecological assessments	As needed	X			X	X	(X)		
Develop recommendations for restoration	As needed	X	X	X	X	X	X		
Establish mowing plan for blackberries	2004	X	X	X	X		(X)		
Resolve issue of possible surplus of parcel east of Cedar Grove Road	By Spring 2005	X	X	X					
Visit access points and log cabin	Weekly		X						
Visit boundary corners and fences	4x/year		X						
Monitor public use of site and note changes	As needed	X	X						
Maintain safe conditions for public use	As needed		X						
Monitor and control invasive vegetation	As needed		X						
Priority Two									
Meet annually to discuss King County and CLC activities	At least annually	X	X	X	(X)		X		
Update Stewardship Plan	Every 2 years	X		X	(X)		X		
Review CLC activities to uphold King County labor agreements	As needed	X	X				X	X	
Maintain planting projects	As needed or required by permits		(X)		X		(X)		
Coordinate with Northwest Pipeline re restoration in easement and maintenance	As needed	X	X		X		(X)		
Consider establishing as reference site	As needed					X			
Update Site Management Guidelines	Within at least five years	X	X	X	(X)		X		X

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Appendix 1. Northwest Pipeline Contact Information

Contact Information

Grant Jensen (also Greg Reich) at 425-868-1010

Williams/Northwest Pipeline Company
Attn: Grant Jensen
22909 NE Redmond-Fall City Road
Redmond, WA 98053

Pipeline Location

The pipeline easement runs through parcels 222306-9055 and -9057. When contacting Williams/Northwest it may be easiest to locate the site using the following information:

- Thomas Guide location (p. 658, B4 and B5),
- Address (14925 Cedar Grove Rd SE), or
- STR location (Section 22, Township 23N, Range 6E).

Pipeline Maintenance Activities

Vegetation maintenance occurs every three years (mowing of shrub vegetation). Previous work may have occurred in 2001 or 2002. As of January 2004 there are no scheduled plans for maintenance.

Extension of the third pipeline from the parcel adjacent to the south (222306-9102). As of January 2004 there are no scheduled plans for pipeline extension.

When they need to do mowing or maintenance, they will contact property owners by letter to arrange entry.

Planting Restrictions

Shrubs but not trees are generally allowed in the pipeline easement.

Grant Jensen can review our planting plans to let us know if there are any problems with what we intend to plant. Send plans to him at the above address.

Appendix 2. Species List

Species list includes species observed during King County DNRP staff site visits 6/02, 7/02, 5/03 and 1/04. This list is strictly seasonal and limited in nature; other species are expected to occur on this site. Bold text indicates non-native species (note that many of the grasses may also be non-native but have not been listed in bold).

Plant species occurring on site:

TREES

<i>Acer macrophyllum</i>	Bigleaf maple
<i>Alnus rubra</i>	Red alder
<i>Picea sitchensis</i>	Sitka spruce
<i>Populus trichocarpa</i>	Black cottonwood
<i>Pseudotsuga menziesii</i>	Douglas-fir
<i>Quercus garryana</i>	Garry Oak
<i>Rhamnus purshiana</i>	Cascara
<i>Thuja plicata</i>	Western red cedar
<i>Tsuga heterophylla</i>	Western hemlock

SHRUBS AND SMALL TREES

<i>Acer circinatum</i>	Vine maple
<i>Berberis nervosa</i>	Oregon grape
<i>Buddleia</i> sp.	Butterfly bush
<i>Cornus sericea</i>	Red-stem dogwood
<i>Corylus cornuta</i>	Beaked hazelnut
<i>Craetagus douglasii</i>	Black hawthorn
<i>Cytisus scoparius</i>	Scot's broom
<i>Hedera helix</i>	English ivy
<i>Ilex</i> sp.	Holly
<i>Oemleria cerasiformis</i>	Indian plum
<i>Opoplanax horridum</i>	Devil's club
<i>Polygonatum cuspidatum</i>	Japanese knotweed
<i>Prunus emarginata</i>	Cherry
<i>Ribes lacustre</i>	Black currant
<i>Ribes sanguineum</i>	Red flowering currant
<i>Rosa nutkana</i>	Nootka rose
<i>Rubus discolor</i>	Himalayan blackberry
<i>Rubus laciniatus</i>	Evergreen blackberry
<i>Rubus leucodermis</i>	Blackcap raspberry
<i>Rubus parviflorus</i>	Thimbleberry
<i>Rubus spectabilis</i>	Salmonberry
<i>Rubus ursinus</i>	Trailing blackberry
<i>Salix lasiandra</i>	Pacific willow
<i>Salix scouleriana</i>	Scouler's willow
<i>Salix sitchensis</i>	Sitka willow
<i>Sambucus racemosa</i>	Elderberry
<i>Sorbus acuminatus</i>	Mountain ash
<i>Spiraea douglasii</i>	Hardhack
<i>Vaccinium parviflorum</i>	Red huckleberry

HERBS

<i>Adenocaulon bicolor</i>	Pathfinder
<i>Asarum caudatum</i>	Wild ginger
<i>Cirsium</i> sp.	Thistle
<i>Claytonia</i> sp.	Miner's lettuce
<i>Corydalis scouleri</i>	Corydalis
<i>Dicentra formosa</i>	Bleeding heart
<i>Digitalis purpurea</i>	Foxglove
<i>Equisetum arvense</i>	Horsetail

<i>Galium</i> sp	Bedstraw
<i>Geranium robertianum</i>	Herb Robert
<i>Hydrophyllum</i> sp.	Waterleaf
<i>Impatiens glandulifera</i>	Policeman's helmet
<i>Iris pseudacorus</i>	Yellow flag iris
<i>Lemna minor</i>	Duckweed
<i>Lotus corniculatus</i>	Birdfoot trefoil
<i>Maianthemum dilatatum</i>	False lily of the valley
<i>Maianthemum racemosum</i>	Feathery false lily of the valley
<i>Maianthemum stellatum</i>	Starry false lily of the valley
<i>Plantago lanceolata</i>	Plantain
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rumex crispus</i>	Curly dock
<i>Senecio jacobea</i>	Tansy ragwort
<i>Solanum dulcamara</i>	Bittersweet nightshade
<i>Stachys cooleyae</i>	Cooley's hedge-nettle
<i>Symphytum officinale</i>	Common comfrey
<i>Tiarella trifoliata</i>	Foamflower
<i>Tolmiea menziesii</i>	Piggy back plant
<i>Trifolium</i> sp.	Clover
<i>Trillium ovatum</i>	Trillium
<i>Typha latifolia</i>	Cattail
<i>Urtica dioica</i>	Stinging nettle

FERNS

<i>Adiantum pedatum</i>	Maidenhair fern
<i>Athyrium felix-femina</i>	Lady fern
<i>Dryopteris expansa</i>	Shield fern
<i>Polystichum munitum</i>	Sword fern
<i>Pteridium acuilinum</i>	Bracken fern

GRASSES, SEDGES, AND RUSHES

<i>Agrostis gigantea</i>	Bent grass
<i>Agrostis stolonifera</i>	Creeping bent grass
<i>Alopecurus</i> sp.	Foxtail
<i>Carex deweyana</i>	Dewey's sedge
<i>Carex pachystachya</i>	Chamisso sedge
<i>Carex stipata</i>	Owlfruit sedge
<i>Dactylus glomerata</i>	Tall orchard grass
<i>Holcus lanatus</i>	Velvet grass
<i>Juncus effusus</i>	Rush
<i>Luzula parviflorus</i>	Wood sedge
<i>Phalaris arundinacea</i>	Reed canarygrass
<i>Phleum pratense</i>	Timothy grass
<i>Pleuropogon refractus</i>	Nodding semaphore grass
<i>Poa pratense</i>	Kentucky bluegrass
<i>Poa</i> sp.	Bluegrass
<i>Scirpus cyperinus</i>	Woolgrass
<i>Scirpus lacustris</i>	Softstem bulrush
<i>Scirpus microcarpus</i>	Small-fruited bulrush

State threatened and sensitive plants possibly occurring in the area include:

Cimicifuga elata

Hypericum majus

Utricularia intermedia

Animals known or likely to use site:

Mammals:

Cougar

Bear*

Elk*

Deer*

Coyote

Bobcat

Raccoon

Opossum

Skunk

Long-tailed weasel

Beaver*

Muskrat

Bats

Birds:

Red-tailed hawks*

Cooper's hawk*

Barred owls

Great horned owls

Screech owls

American robin*

Rufous hummingbird

Pileated woodpecker

Northern flicker

Red-breasted sapsucker*

American dipper*

American goldfinch*

Western tanager*

Cedar waxwing*

Belted kingfisher*

Downy woodpecker*

Passerines

Rough-winged swallows*

Reptiles:

Rubber boa

Garter snake

Amphibians:

Rough-skinned newt

Northwest salamander

Long-toed salamander

Western toad

Red-legged frog

Pacific tree frog

Ensatina

Fish

Chinook salmon*

Coho salmon*

Sockeye salmon*

Kokanee*

Steelhead trout*

Cutthroat trout*

Invertebrates:

Fresh water mussel (species unknown)*

Caddisfly*

*documented by sighting, sign and/or personal communication (King County 2002)

Appendix 3. Stewardship Easement

Stewardship Easement was recorded as Exhibit C with the Statutory Warranty Deed for the property. Document is available at King County Recorder's Office, Recorded Document # 20031218001559. Recorded document contains signatures.

Final version of Stewardship Easement included on the following pages contains the final text, but is an unsigned version.

RESERVED STEWARDSHIP EASEMENT AND AGREEMENT

THIS EASEMENT is reserved by Cascade Land Conservancy, a Washington nonprofit nature conservancy corporation ("Cascade"), and THIS STEWARDSHIP AGREEMENT is made by and between King County, a political subdivision of the State of Washington (the "County"), and Cascade. This Easement and this Stewardship Agreement are together referred to as the "Easement" herein.

WHEREAS, the County and Cascade make the following recitals:

- A.** Cascade owns an undivided one-sixth interest as a tenant in common of that certain parcel of land (the "Property") described as Exhibit A;
- B.** The County is acquiring fee ownership of the Property through a simultaneous conveyance of the property interests of the four individuals ("Individuals"), which collectively own an undivided five-sixths interest in the Property as tenants in common, and of Cascade, which owns an undivided one-sixth interest in the Property as a tenant in common.
- C.** The County is acquiring the Individuals' interest in the Property in exchange for good and valuable consideration in the form of a cash payment at closing in amount agreed upon by the County and the Individuals. In furtherance of Cascade's land and natural resource conservation mission and its cooperative program with the County to help ensure the protection of signature lands in King County, Cascade is contemporaneously, with its reservation of this Easement and consistent with the terms herein, donating to the County through a bargain sale substantially all of Cascade's interest in the Property.
- D.** The Property possesses natural, scenic, open space, and educational values, including habitat for native fish and wildlife and the natural features and processes that sustain such habitat. These values are of great importance to the County, Cascade, and the people of King County and the State of Washington, and are referred to herein as the "Conservation Values."
- E.** The specific Conservation Values of the Property are intended to be further documented by the County in a Present Conditions Report, which will include an inventory of the relevant features, current use and state of improvement of the Property. The Present Conditions Report is intended to serve as an objective, though nonexclusive, information baseline for monitoring compliance with the terms of this Easement.
- F.** The County is acquiring fee ownership of the Property for the purpose of conserving, maintaining, protecting and enhancing the Conservation Values of the Property, and Cascade is

reserving this Easement for the purpose of conducting Stewardship Activities consistent with conserving, maintaining, protecting and enhancing the Conservation Values of the Property. These mutually supportive purposes are intended to be achieved through ownership of the fee interest in and management of the Property by the County, and through compatible Stewardship Activities on the Property by Cascade under the terms of this Easement. The County's acquisition and Cascade's reservation of their respective interests in the Property are authorized under RCW 64.04.130 and RCW 84.34.210.

NOW, THEREFORE, Cascade hereby reserves and, in consideration of the above and the mutual covenants, terms, conditions and restrictions contained herein, the County and Cascade agree as follows.

1. Reservation of Easement. Cascade hereby reserves a perpetual, nonexclusive easement for the purpose of conducting Stewardship Activities under the terms and conditions of this Easement that protect or enhance the Conservation Values of the Property. Any subsequent easement over the Property granted for purposes similar to this Easement shall be subject to this Easement and not diminish or otherwise interfere with the rights Cascade has reserved herein and to which Cascade and the County have hereby agreed. The County's uses of and activities on the Property, including, but not limited to, allowing access by the general public, shall not be inconsistent with the Stewardship Plan described in Section 2 hereof.

2. Preparation of Stewardship Plan.

2.1. Activities Allowed Prior to Stewardship Plan. Cascade shall not conduct any Stewardship Activities on the Property until it has prepared a Stewardship Plan that has been approved by the County. Prior to such approval, Cascade shall have, notwithstanding the foregoing sentence, the right to enter the Property for the sole purpose of gathering information necessary for preparation of the Stewardship Plan, observing conditions on the Property and of its Conservation Values, and showing the Property to Cascade's Directors, employees, agents, conservation partners, funders, supporters, and potential funders and supporters, provided that all such activities shall not interfere with the Conservation Values of the Property.

2.2. Contents of Stewardship Plan. The Stewardship Plan shall include, but not be limited to, an inventory of the relevant features, current use and condition of improvement of the Property at the time the Plan is prepared, standards that will govern Cascade's activities on the Property and a process by which certain activities would be reviewed, approved, conditioned or denied by the County prior to implementation, an identification of improvements Cascade intends to accomplish on the Property, a description of the scientific and educational activities Cascade intends to conduct on the Property, and a long range management plan for the Property. The Stewardship Activities described in the Stewardship Plan shall conserve, maintain, protect, or enhance the Conservation Values of the Property. The Stewardship Plan shall be consistent with and incorporate relevant information from any then current Present Conditions Report or Management Plan prepared by the County. The Stewardship Plan shall be consistent with any applicable County labor agreements and civil service obligations. The County shall work cooperatively with Cascade to review and approve the Stewardship Plan in a timely manner, approval of which shall not be unreasonable withheld. The purpose of the Stewardship Plan is to implement the easement reserved

herein and to provide for adaptive management of the Property in a manner that conserves, maintains, protects or enhances the Conservation Values.

2.3. Term of Stewardship Plan. After approval of the Stewardship Plan, Cascade, in cooperation with the County, shall at least every two years review the Stewardship Plan and either amend the Stewardship Plan or agree in writing that no amendment is necessary. The County and Cascade shall work cooperatively, diligently and in good faith to complete this required review. If this required review is not documented in an amendment of the Stewardship Plan or there is not an agreement in writing that no amendment is necessary for a period of more than two years, the Stewardship Plan will be suspended and Cascade shall not conduct any Stewardship Activities on the Property until the required review has occurred or said Agreement is in place, subject to the right described in Section 2.1 above.

3. Stewardship Activities.

3.1. Duty to Perform Stewardship Activities. For so long as a Stewardship Plan is in force, Cascade's Stewardship Activities on the Property shall be consistent with the requirements of the Stewardship Plan.

3.2. Permitted Stewardship Activities. Cascade shall have the right to enter the Property at all reasonable times to carry out the allowed Stewardship Activities, which may include, but are not limited to, monitoring the condition of the Property, conducting scientific studies of the Property, conducting limited educational activities on the Property, planning projects to protect or enhance the Conservation Values of the Property, and carrying out projects to protect or enhance the Property, provided, that Cascade will only be allowed to perform Stewardship Activities that are consistent with the Stewardship Plan.

3.3. Prohibited Stewardship Activities. Any activity or use of the Property by Cascade that is inconsistent with the Stewardship Plan or that interferes with the Conservation Values of the Property is prohibited. Without limiting the generality of the foregoing, the following activities or uses are expressly prohibited, unless permitted in the Stewardship Plan or otherwise agreed to in writing by the County.

3.3.1. Construction and Improvements. The placement, construction, or maintenance of any buildings, structures, or other improvements of any kind, including, without limitation, fences, utilities, septic systems, communication lines, communication towers, storage tanks and pipelines.

3.3.2 Paving and Road and Trail Construction. The paving or covering of any portion of the Property with concrete, asphalt, gravel, crushed rock, wood shavings or any other paving or surfacing material or the construction of a road or trail.

3.3.3. Surface Alteration. Any alteration of the surface of the land, including, without limitation, the excavation or removal of soil, sand, gravel, rock, peat, or sod.

3.3.4. Soil Degradation and Water Pollution. Any use or activity that causes or is likely to cause significant soil degradation or erosion or significant depletion or pollution of an surface or subsurface waters.

3.3.5. Wetlands. Any activity on the Property that changes, disturbs, alters or impairs the plant and animal habitat, ecological value or scenic qualities of a wetland or wetland buffer. These prohibited activities include without limitation artificially draining water into or out of a wetland; grading, filling or compacting wetland soils; conducting domestic animal grazing or agricultural activities of any kind; and hunting or trapping.

3.3.6. Ponds, Watercourses and Wells. The alteration or manipulation of the ponds, water courses, and wells located on the Property, or the creation of new water impoundments, water courses or wells, for any purpose.

3.3.7. Alteration Surface Water, Subsurface Water or Channeling Water. Any alteration of the surface water channels on the Property including the removal of fallen trees, gravel or rocks from a water channel or the damming of the water channel, including the lining of the water channel with rocks, wood, trees, sand bags, or other materials.

3.3.8. Introduced Vegetation. The planting or introduction of species of plants.

3.3.9. Fertilizers, Pesticides, Herbicides or Other Chemicals. The use of fertilizers, pesticides, herbicides or other chemicals.

3.3.10. Timber Harvest. The pruning, cutting down, or other destruction or removal of trees located on the Property.

3.3.11. Waste Disposal. The disposal, storage, or release of hazardous substances, rubbish, garbage, debris, vehicles, abandoned equipment, parts thereof, or other waste or material on the Property. The term "release" shall mean any release, generation, treatment disposal, storage, dumping, burying, abandonment, or migration from off-site. The term "hazardous substances" as used in this Easement shall mean any substances, materials, or wastes that are hazardous, toxic, dangerous, harmful or are designed as, or contain components that are, or are designated as, hazardous, toxic, dangerous, or harmful and/or which are subject to regulation as hazardous, toxic, dangerous or harmful or as a pollutant by any federal, state, or local law, regulation, statute, or ordinance, including, but not limited to, petroleum or any petroleum product.

3.3.12. Mineral Development. The exploration for, or development and extraction of, any minerals or hydrocarbons.

3.3.13. Off-Road Vehicles. The operation of bicycles, motorcycles, dune buggies, all-terrain vehicles, snow mobiles, or other types of off-road recreational vehicles or the operation of other sources of excessive noise pollution.

3.4. Compliance with Law. In exercising its rights under this Easement, Cascade shall comply with all applicable federal, state, and local laws, rules and regulations.

4. County Management of Property.

4.1. Responsibility of County Not Affected. Other than as specified herein, this Easement is not intended to impose any legal or other responsibility on the County, or in any way to affect any right or obligation of the County as the owner of the Property. This shall apply to, but not be limited to, the right to conduct activities similar to those that Cascade may conduct under this Easement, and the right to admit the general public to the Property.

4.2. County Present Conditions Report and Management Plan. The County also has the right to prepare a Present Conditions Report and/or Management Plan for the Property.

5. Cooperation Between the Parties.

5.1. The County and Cascade will at all times cooperate with one another in order to best accomplish the purpose of this Easement.

5.2. The County and Cascade will at all times meet and confer on an annual basis to discuss activities relating to the Property that occurred in the previous year and that are planned to occur in the following year.

5.3. The County and Cascade will at all times when a Stewardship Plan is in effect, coordinate the activities identified in the Stewardship Plan.

5.4. The County and Cascade will at all times when a Stewardship Plan is in effect share with one another the data, reports, descriptions, summaries or other documentation identified in the Stewardship Plan, which are generated by any activities undertaken on the Property, including scientific or educational activities.

6. Liability and Indemnification.

6.1. Cascade shall hold harmless, indemnify and defend the County, its successors and assigns, and its officers, employees, agents and contractors, and their successors and assigns (collectively, "Indemnified County Parties") from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands or judgments, including without limitation reasonable attorneys' fees, arising from or in any way connected with:

6.1.1. Injury to or death of any person, or physical damage to any property, resulting from any act or omission of Cascade, its officers, employees or agents related to or occurring in or about the Property during the term of this Easement, except to the extent caused by the acts or omissions of the Indemnified County Parties; and/or

6.1.2. Violations or alleged violations of any federal, state or local environmental law or regulation relating to pollutants or hazardous, toxic or dangerous substances or materials by Cascade, its officers, employees or agents during the term of this Easement, except to the extent caused by the acts or omissions of the Indemnified County Parties.

6.2. The County shall hold harmless, indemnify and defend Cascade, its successors and assigns, and its officers, employees, agents and contractors, and their successors and assigns (collectively, "Indemnified Cascade Parties") from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands or judgments, including without limitation reasonable attorneys' fees, arising from or in any way connected with:

6.2.1. Injury to or death of any person, or physical damage to any property, related to or occurring in or about the Property during the term of this Easement, except to the extent caused by the acts or omissions of the Indemnified Cascade Parties; and/or

6.2.2. Violations or alleged violations of any federal, state or local environmental law or regulation relating to pollutants or hazardous, toxic or dangerous substances or materials during the term of this Easement, except to the extent caused by the acts or omissions of the Indemnified Cascade Parties.

6.3. For purpose of Section 6 of this Easement only, Cascade and the County waive the immunity granted them for industrial insurance claims pursuant to Revised Code of Washington Chapter 51 to the extent necessary to extend their respective obligations under this section to any claim, demand, or cause of action brought by or on behalf of any employee of Cascade or the County, including judgments, awards and costs arising therefrom and including attorneys' fees.

6.4. If any liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, or judgments are caused or result from the concurrent negligent acts or omissions of Cascade and the County, their officers, employees or agents, the preceding sections shall be valid and enforceable only to the extent of the negligence of respective parties to this Easement, and their officers, agents or employees.

6.5. The rights and obligations contained in this Section 6 and in Section 8 below with respect to the parties' abilities to enforce the rights and obligations contained in this Section 6 shall survive termination of this Easement.

7. Insurance.

7.1 Each party, at no cost to the other, shall maintain or cause to be maintained throughout the term of the Easement, insurance coverages as specified below in this Easement:

7.1.1. General Liability: Insurance Services Office form number (CG00 001 Ed. 11-88) (or equivalent form) covering Commercial General Liability, with a limit of not less than: \$1,000,000 combined single, per occurrence, \$2,000,000 aggregate.

7.1.2. Workers' Compensation: Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, statutory limits.

7.2. The insurance coverage(s) required in this Easement are to contain, or be endorsed to contain the following provisions for Liability Policy(s) (Except Workers Compensation):

7.2.1. The County, its officers, officials, employees and agents are to be covered as additional insureds as respects liability arising out of activities performed by or on behalf of Cascade in connection with this Easement.

7.2.2. Cascade's insurance coverage shall be primary insurance as respects the County, its officers, officials, employees and agents for any activities performed by or on behalf of Cascade in connection with this Easement. Any insurance and/or self-insurance maintained by the County, its officers, officials, employees or agents shall not contribute with the Cascade's insurance or benefit Cascade in any way.

7.2.3. Cascade's insurance coverage shall apply separately to each insured against whom a claim is made and/or lawsuit is brought for any activities performed by or on behalf of Cascade in connection with this Easement, except with respect to the limits of the insurer's liability.

7.3. King County, a charter county government under the constitution of the State of Washington, hereinafter referred to as "County", maintains a fully funded Self-Insurance program as defined in King County Code 4.12 for the protection and handling of County liabilities including injuries to persons and damage to property.

7.4. Cascade acknowledges, agrees and understands that the County is self-funded for all of its liability exposures. County agrees, at its own expense, to maintain, through its self-funded program, coverage for all of its liability exposures for this Easement. The County agrees to provide Cascade with at least 30 days prior written notice of any material change in the County's self-funded program and will provide Cascade with a certificate of self-insurance as adequate proof of coverage. Cascade further acknowledges, agrees and understands that the County does not purchase Commercial General Liability insurance and is a self-insured governmental entity, therefore the County does not have the ability to add Cascade as an additional insured.

7.5. In consideration of the duration of this Easement, the parties agree that the Insurance section herein at the discretion of the County Risk Manager, may be reviewed and adjusted, with the Parties' mutual agreement, with each amendment of this Easement and within ninety (90) days of the end of the first five (5) year period of the Easement and the end of each successive five (5) year period thereafter, provided that any such adjustment in the limits of coverage applies to both the County and Cascade.

7.5.1. Any adjustments as determined appropriate by the County's Risk Manager, shall be in accordance with reasonably prudent risk management practices and insurance industry standards and shall be effective on the first day of each successive five (5) year period.

7.5.2. **Adjustment, if any, in insurance premium(s) shall be the responsibility of each party for their respective insurance coverages. Any failure by the County to exercise the right to review and adjust at any of the aforementioned timings shall not constitute a waiver of future review and adjustment timings.**

7.5.3. Any disputes under this Section 7.5 shall be resolved as provided elsewhere in this Easement.

8. Enforcement. The County and Cascade shall have the right to prevent and correct violations of the terms of this Easement as set forth below.

8.1. Preventive Discussions. The County and Cascade will promptly give the other notice of problems or concerns arising in connection with the parties' actions under this Easement or the use of or activities or conditions on the Property, and will meet as needed, but no later than 15 days after receipt of a written request for a meeting, to discuss the same.

8.2. Optional Alternative Dispute Resolution. If a dispute is not resolved through preventive discussions under subsection 8.1, The County and Cascade may by mutual agreement submit the matter to mediation or arbitration upon such rules of mediation or arbitration as the County and Cascade may agree.

8.3. Judicial Resolution.

8.3.1. Notice of Violation. If one party determines that the other is in violation of the terms of this Easement or that a violation is threatened, such party shall give written notice to the other of such violation and demand corrective action sufficient to cure the violation and,

where the violation involves injury to the Property resulting from any use or activity inconsistent with this Easement, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by the other party.

8.3.2. Failure to Respond. If the party receiving notice of the violation:

8.3.2.1. Fails to cure the violation within thirty (30) days after receipt of notice thereof;

8.3.2.2. Under circumstances where the violation cannot reasonably be cured within the thirty (30) day period, fails to begin curing such violation within the thirty (30) day period; or

8.3.2.3. Fails to continue diligently to cure such violation until finally cured;

The other party may bring an action as provided in this Section.

8.3.3. Action. Either party may bring action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement or injury to any Conservation Values protected by this Easement, including damages for the loss of the Conservation Values, and to require the restoration of the Property to the condition that existed prior to any such injury.

8.3.4. Immediate Action Required. If either party, in its sole and absolute discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, that party may pursue its remedies under this Section without prior notice to the other and without waiting for the period provided for cure to expire.

8.3.5. Nature of Remedy. Each party's rights under this section apply equally in the event of either actual or threatened violations of the terms of this Easement. Remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

8.3.6. Costs of Enforcement. In any suit, action or appeal therefrom to enforce this Easement or any term or provision hereof, or to interpret this Easement, or to remedy other wrongs or violations of law committed in connection with this Easement, the prevailing party shall be entitled to recover its costs incurred therein, including the costs of restoration and reasonable attorneys' fees and costs, which shall include fees on appeal. In the event that a dispute is resolved without initiating or completing a judicial proceeding, the parties shall bear their own costs unless otherwise agreed.

8.3.7. Discretion in Enforcement. Enforcement of the terms of this Easement shall be at the discretion of the parties, and any forbearance by the a party to exercise its rights under this Easement in the event of any breach of any terms of this Easement by the other shall not be deemed or construed to be a waiver by such party of such term or of any rights under this Easement. No delay or omission in the exercise of any right or remedy upon any breach shall impair such right or remedy or be construed as a waiver.

8.3.8. Acts Beyond Parties' Control. Neither the County nor Cascade shall be in default or violation as to any obligation created hereby and no condition precedent or subsequent shall be deemed to fail to occur if such party is prevented from fulfilling such obligation by, or such condition fails to occur due to, (a) forces beyond such party's reasonable control, including without limitation, destruction or impairment of facilities resulting from breakdown not resulting from lack of ordinary care and maintenance, flood, earthquake, slide, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, proceeding by court or public authority, or act or failure to act by court, public authority or third party, which forces by exercise of due diligence and foresight such party could not reasonably have been expected to avoid, or (b) any action deemed reasonable by a party under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes.

9. Transfer of Property or Easement and Termination.

9.1 Except as expressly provided in Section 9.3 below, the County may convey all or a portion of the Property for purposes inconsistent with this Easement, such as for use as a road, and the Easement over the portion of the Property so conveyed shall terminate upon the execution of the deed of conveyance, only if the County protects Cascade's interest in the Easement and the Property by either, as determined by the County in the County's sole discretion, and contingent on any required approval by the Metropolitan King County Council ("County Council"):

9.1.1. Acquiring replacement property of equivalent conservation value to the Property (or portion of the Property so conveyed as the case may be) and granting Cascade a Stewardship Easement with terms identical to this instrument in such replacement property; or

9.1.2. Paying Cascade one-sixth (1/6) of the then unrestricted fair market value of the Property (or portion of the Property so conveyed as the case may be).

9.2. Nothing in Section 9 shall be interpreted to authorize the County to make any conveyance of the Property inconsistent with the open space use restrictions and restrictions on alienation as specified in RCW 84.34.200 et seq., and King County Ordinance Nos. 9071, 10735, and 11068.

9.3. If the County conveys less than two-and-one-half (2 1/2) acres of the Property for purposes inconsistent with this easement, such as for a road, the Easement over the portion of the Property so conveyed shall terminate upon the execution of the deed of conveyance and the County need take no further measures to protect Cascade's interest in the Easement or the Property. Notwithstanding the foregoing, the exception from the requirements of Section 9.1 above allowed in this Section 9.3 shall not be available if multiple applications thereof would result in the conveyance of more than five (5) acres.

9.4. In the event that the County conveys all or a portion of the Property, notice of such conveyance shall be provided to Cascade at least thirty (30) days prior to such conveyance.

9.5. Cascade may only transfer its interests in this Easement to (a) a governmental entity or (b) a non-profit entity dedicated to conservation purposes with resources, experience and ability that are similar to those possessed by Cascade on the effective date of this Easement. Such a transfer may only be permitted with the written consent of King County, which consent shall not be unreasonably withheld or delayed.

9.6. In the event that Cascade is dissolved and this Easement has not been transferred as provided in Section 9.5 above, this Easement shall be automatically terminated.

9.7. In the event that due to County labor agreements or civil service obligations Cascade is prevented from performing Stewardship Activities to such an extent that the real property interest reserved herein is essentially extinguished and Cascade provides written notice thereof to the County, then:

9.7.1. The County shall, contingent on any required approval by the County Council within one hundred twenty (120) days of the required written notice pay Cascade one-sixth (1/6) of the then unrestricted fair market value of the Property and Cascade shall contemporaneously execute any documents necessary to terminate this reserved Easement.

9.7.2. If the County Council does not approve the payment referenced in Section 9.7.1, then this reserved Easement shall terminate and the undivided 1/6th interest in the Property conveyed by Cascade contemporaneously with the reservation of this Easement shall revert to Cascade. Upon such reversion, Cascade and the County shall be tenants in common, and, contingent on any required approval by the County Council, shall promptly partition the Property in kind and not through sale and disbursement of proceeds. Notwithstanding the provisions of Section 8 of this reserved Easement, if Cascade and the County cannot agree on a voluntary partition of their undivided interests in the Property, then either may file suit for a judicial partition, provided however, that the Parties agree that any such judicial partition shall be in kind and not through sale and disbursement or proceeds, and that each Party shall bear its own costs and attorneys fees if such a suit is commenced.

9.7.2.1. During any period that this reserved Easement is terminated and Cascade and the County are tenants in common, all the "Liability and Indemnification" provisions of Section 6 of this Easement shall remain in full force and effect, except that Sections 6.1, 6.2 and 6.4 shall be replaced by the following:

"Each party shall protect, defend, indemnify and save harmless the other party, its officials, employees and agents, from any and all costs, expenses, claims, actions, suits, liability, loss, judgments, attorney's fees and/or awards of damages arising out of or in any way resulting from the indemnifying party's, or its officials',

employees' and agents', acts, errors or omissions related to the Property. If such costs, expenses, claims, actions, suits, liability, loss, judgments, attorney's fees and/or awards of damages are caused by, or result from, the concurrent acts, errors, or omissions of the Parties, or their officials, employees and agents, this Section shall be valid and enforceable only to the extent of the comparative fault of each party, its officials, employees and agents."

9.7.2.2. During any period that this reserved Easement is terminated and Cascade and the County are tenants in common, all the "Insurance" provisions of Section 7 of this Easement shall remain in full force and effect.

9.8. With regard to the actions in Sections 9.1 and 9.7 of this Easement that are contingent on any required approval by the County Council, the King County Department of Natural Resources and Parks, or its successor agency, shall take all actions necessary, including making a favorable recommendation to the County Council, to obtain the required approval.

9.9 If the Property and/or this Easement is taken, in whole or in part, by the exercise of the power of eminent domain, the County and Cascade shall be entitled to compensation in accordance with applicable law. Nothing in this Section 9.9 shall be interpreted to be an agreement or acquiescence to condemnation of the Property and/or this Easement by the County or Cascade.

10. Modification. This Easement may be modified by agreement of the parties, provided that any such amendment shall be consistent with the purpose of the Easement and shall not effect its perpetual duration. All modifications shall be in writing, signed by both parties and recorded in the real property records of King County.

11. Perpetual Duration. The Easement created by this Instrument shall be a servitude running with the land in perpetuity except as provided in Section 9. Every provision of this Instrument that applies to the County and Cascade shall also apply to their respective agents, assigns, and all other successors as their interests may appear.

12. Notices. Any notices required by this Instrument shall be in writing and shall be personally delivered or sent by certified first class mail (postage prepaid with Return Receipt Requested) to the County and Cascade respectively at the following addresses, unless a party has been notified by the other of a change of address.

To Cascade: Cascade Land Conservancy
615 Second Avenue, Suite 525
Seattle, Washington 98104

To County: King County Department of Natural Resources
Water and Land Resources Division
201 South Jackson Street, Suite 600
Seattle, WA 98104
Attn: Manager, Natural Resource Lands

Except as may be otherwise expressly provided for herein (a) if such notice is delivered in person, it shall be deemed given immediately upon delivery or refusal of delivery or receipt; or (b) if such notice is sent by certified mail, it shall be deemed given on the earlier of (i) the date of first attempted delivery or (ii) the third day after being deposited in the mail.

13. Severability. If any provision of this Easement is found to be invalid, illegal or unenforceable, that finding shall not affect the validity, legality or enforceability of the remaining provisions.

14. Effective Date and Counterparts. The date this Instrument is fully executed shall be the effective date of this Easement. This Easement may be signed in counterparts.

15. Controlling Law. The interpretation and performance of this Easement shall be governed by the laws of the State of Washington.

16. Entire Agreement. This Easement sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment that complies with Section 10 herein.

17. Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

18. Recitals. Each recital set forth above is fully incorporated into this Easement.

DATED as of the ____ day of December, 2003:

Cascade Land Conservancy:

By: _____

Name: _____

Title: _____

APPROVED AS TO FORM:

By _____

Attorney for Cascade

King County:

By: _____

Name: _____

Its: _____

APPROVED AS TO FORM:

By _____

Senior Deputy Prosecuting Attorney

STATE OF WASHINGTON)

) ss.

COUNTY OF KING)

On this day personally appeared before me _____, to me known to be the _____ of KING COUNTY, the municipal corporation and political subdivision of the State of Washington that executed the foregoing instrument, and acknowledged such instrument to be the free and voluntary act and deed of such municipal corporation and political subdivision, for the uses and purposes therein mentioned, and on oath stated that ___he is duly authorized to execute such instrument.

Dated this _____ day of December, 2003.

Printed Name

Notary Public in and for the State of Washington

Residing at _____

My appointment expires _____

STATE OF WASHINGTON)

) ss.

COUNTY OF KING)

On this ____ day of _____ 2003, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Gene Duvernoy, to me known to be the President of the Cascade Land Conservancy, the Washington nonprofit corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute the said instrument.

Dated this ____ day of December, 2003.

Printed Name

Notary Public in and for the State of Washington

Residing at _____

My appointment expires _____