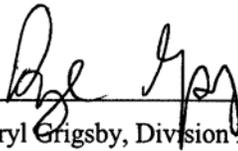


# Little Si Natural Area Site Management Guidelines

*April 2005*



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**King County**

Department of Natural Resources and Parks

**Water and Land Resources Division**

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# Executive Summary

Little Si Natural Area is a King County Department of Natural Resources and Parks Ecological Land managed for the protection of ecological values and, where appropriate, public access. The Little Si Natural Area is 28.2 acres in size and located just east of the City of North Bend on the western boundary of Mount Si Natural Resources Conservation Area (NRCA), which is managed by the Washington State Department of Natural Resources.

Little Si Natural Area borders the Mount Si NRCA on its north and eastern boundaries, the Middle Fork of the Snoqualmie River on its western boundary and private property on its southern boundary. The site contains primarily mature forest cover with lesser amounts of rock outcrops and grassy openings. Approximately 90% of the natural area is composed of a homogenous second growth conifer stand. King County purchased the site in November 1989.

Little Si Natural Area contains significant habitat for a variety of fish and wildlife species. The Middle Fork of the Snoqualmie River supports a variety of non-anadromous fish, but Snoqualmie Falls downstream prevents anadromous fish from reaching the Middle Fork. The Middle Fork corridor is identified as a wildlife habitat corridor in the King County Comprehensive Plan (2004).

There is limited public use in the Little Si Natural Area, due to steep slopes and rocky outcrops that make the western flanks of Little Si Mountain virtually inaccessible. However, the proximity of the site to the Mount Si NRCA, and the presence of the “blue hole,” a popular swimming hole adjacent to the site in the Middle Fork Snoqualmie River, make public use an issue.

The goals for the Little Si Natural Area are 1) to conserve and enhance the ecological value, and 2) accommodate appropriate public uses that do not harm ecological resources. The following are planning and management recommendations that are designed to support these goals.

- Implement preserve and protect measures to limit inappropriate public use.
- Monitor public use, types of use and impacts to ecological systems to inform management decisions.
- Work collaboratively with Washington State Department of Natural Resources to address ecological and public use issues.
- Consider transferring Little Si Natural Area to Washington State Department of Natural Resources.

# Little Si Natural Area Site Management Guidelines

## Introduction

Little Si 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 educational opportunities are accommodated on these sites where they do not harm the ecological value of the site.

This document provides general property and acquisition information, a description of existing site conditions, a site analysis, and a list of management objectives and recommendations for Little Si Natural Area. These site management guidelines were developed using guidance established in the King County Ecological Lands Handbook (2003).

## Part 1. General Property Information

Little Si Natural Area is a 28.2-acre site located just east of the City of North Bend on the western boundary of Mount Si Natural Resources Conservation Area (NRCA), which is managed by the Washington State Department of Natural Resources. The Little Si Natural Area encompasses the western slopes of Little Si Mountain starting approximately 250 feet below Little Si Mountain summit. Little Si Natural Area borders the Mount Si NRCA on its north and eastern boundaries, the Middle Fork of the Snoqualmie River on its western boundary and private property on its southern boundary. The site contains primarily mature forest cover with lesser amounts of rock outcrops and grassy openings.

The Little Si Natural Area is zoned RA-10 in accordance with the King County Comprehensive Plan (2004). The purpose of the rural area zone (RA) is to provide for long-term rural character and to minimize land use conflicts with nearby agricultural or forest production districts or mineral extraction sites (King County Code 21A.04.060). This purpose is accomplished by: 1) limiting residential development; 2) allowing small scale farming and forestry activities and tourism and recreation uses compatible with rural character; 3) increasing required setbacks to minimize conflicts with agriculture, forest and mineral zones; and 4) requiring tracks of cluster development designated as permanent open space. The Little Si Natural Area is adjacent to the Forest Production District, which contains lands of long-term significance for commercial timber production.

The Little Si Natural Area lies in the upper Snoqualmie Basin above Snoqualmie Falls. Much of the upper watershed contains National Forest lands, land managed by Washington State Department of Natural Resources and land that is primarily managed for timber by private companies. A majority of the watershed has been logged since the turn of the 20<sup>th</sup> century with little or no old growth forest remaining except in those areas set aside as reserves such as the Alpine Lakes Wilderness. As King County continues to grow, several cities in the upper basin will have expanding commercial and residential development.

**Table 1. Little Si Natural Area General Information.**

Best Available Address	436 <sup>th</sup> Avenue SE and SE 114 <sup>th</sup> Street, North Bend
Thomas Guide Map Location	Page 660
Legal Description	Section 10, Township 23 N, Range 8E
Acreage	28.22 acres
Drainage Basin	Snoqualmie River
WRIA	7
Council District	3
King County Sensitive Areas	Erosion hazard

**Table 2. Little Si Natural Area Parcel Information.**

Parcel Number	Acreage*	Recording Number	Purchase Date	Ownership type/price	Previous Names	Zoning	Funding Source
1023089267	28.22	861022104	11/3/1989	Owned in Fee \$71,400 and exchange of lands	Little Si Park	RA-10	Conservation Futures

\*Acreage from King County Assessor’s data.

## Part 2. Acquisition, Funding Source and Deed Restrictions

King County Parks initiated the original acquisition of the Little Si Natural Area, previously named Little Si Park, in 1986 to provide opportunities for public use and to protect the area’s natural resources. Particular attention was on securing public access and protection of the ‘blue hole’, a deep pool on the right bank of the Middle Fork of the Snoqualmie River that was actively used by the public as a fishing and swimming hole (T. Eksten, Personal Comm., 2003). In addition, according to the King County Motion No. 7675, the property was acquired to “enhance the State of Washington’s Natural Resource and Conservation Area and develop lands for hiking trails and other recreational purposes.”

On November 3, 1989 King County purchased the 28.2-acre property for \$71,400 (marketable timber price) and an exchange of lands. The exchange of lands included trading King County “surplus” lands that bordered the southern boundary of the Little Si Natural Area to the sellers. The details of the consideration of exchange are contained in King County Motion No. 7675. The funding source for the acquisition was from the Conservation Futures Tax as stated in King County Ordinance 7736. Conservation Futures provided funds from tax revenue to acquire key open space lands, sensitive area lands or rights to future development.

Initially, King County Parks purchased the Little Si Natural Area with the intention of turning over the property to the Washington State Department of Natural Resources who owned a large percentage of the surrounding landscape (T. Eksten, Personal Comm., 2003). King County Ordinance 7736 states that “the property acquired for Little Mt. Si Preservation shall be held until transferred to the [Washington] Department of Natural Resources.” At least one time since the natural area was purchased, King County has approached the Washington State Department of Natural Resources in an effort to sell/give/trade the property (T. Eksten, Personal Comm., 2003). However, no agreement was negotiated.

The statutory warranty deed (File 82-10-192) reserves the right of King County:

“a non-transferable easement for pedestrian walkway; to be used as access by King County personnel or designated representatives, over, upon and across the South 20 feet of the lands conveyed herein. No fencing will be used on the pedestrian access easement...”

Likewise the statutory warranty deed lays out terms of potential forestry activities:

“The Grantor and Grantee...neither of them shall log the lands described herein for the base of the cliff, eastward up the mountain. Any cutting of timber or brush shall be limited to non-evergreens; except when necessary to control disease or enhance the quality of environment, and will be subject to prior written approval by either party.”

## Part 3. Mount Si Natural Resources Conservation Area

The Little Si Natural Area is strongly influenced in terms of ecological processes and public use by the over 8,000-acre Mount Si NRCA that borders a majority of the site. The Mount Si NRCA is managed by the Washington State Department of Natural Resources. Although managed and owned in fee by King

County, the Little Si Natural Area is recognized by the Washington State Department of Natural Resource as part of the Mount Si NRCA planning area.

The Mount Si NRCA accommodates well-over 50,000 visitors per year and is rugged, ranging in elevation from approximately 1,600 feet to 4,800 feet in height (Washington State Department of Natural Resources, 1997). The Washington Department of Natural Resources' Mount Si NRCA Management Plan (1997) states that the Mount Si NRCA is to be "managed to protect ecological systems and encourage natural successional processes, while providing controlled opportunities for low-impact public use emphasizing environmental education" (Washington State Department of Natural Resources, 1997).

In conjunction with the Mount Si NRCA Management Plan, the Washington State Department of Natural Resources produced the Mount Si NRCA Public Use Plan (1997) to provide planning guidelines for low impact recreation while protecting the natural environment. In that plan, the Little Si Natural Area was identified within the Mount Si NRCA's "primary public use zone" which is designated primarily for public use (Washington State Department of Natural Resources, 1997). According to the Washington State Department of Natural Resources, the "primary public use zone" is organized to sustain significant public use with highly maintained trails, facilities, parking areas and scenic viewpoints and destinations. The zone includes the Mount Si and Little Si trails.

The Little Si Trail is located on the western portion of the Mount Si NRCA and is within close proximity to the Little Si Natural Area. The approximately 2.5 mile trail terminates at the summit of Little Si Mountain, only about 250 feet east of the Little Si Natural Area boundary. The Little Si Trail offers a variety of low impact uses including hiking, interpretative trails, environmental education as well as rock climbing. The climbing takes place along the cliff bands on the eastern side of Little Si Mountain.

The Little Si Trailhead was recently moved from its former location on King County property off of 434<sup>th</sup> Street. The old Little Si Trailhead location provided access via a primitive graveled area that was able to support about 25 vehicles. Visitors had to walk down a neighborhood street to access the trailhead. However, as the popularity of the trail increased neighbors complained about illegal parking, trespassing and litter. The Washington State Department of Natural Resources addressed the issue by relocating the trailhead and much of the Little Si Trail to a new location two-miles east off of Mount Si Road.

## Part 4. Ecological Resources

This section describes the existing natural resources and ecological processes present at Little Si Natural Area. Further analysis will be provided in Part 6 below.

### Topography and Soils

Little Si Natural Area contains steep slopes and small cliffs that range between 40 – 70 degrees extending just above the Middle Fork Snoqualmie River's 100-year floodplain to just below Little Si summit. The maximum elevation is approximately 1250 feet above sea level and the minimum is 500 feet above sea level.

The soil survey, King County Washington maps soils within the property boundaries as exclusively Ovall gravelly loam (Snyder et al, 1973). Ovall gravelly loam occurs in very steep areas (slopes greater than 40 degrees) that overlie andesite bedrock with an average depth of 30 to 40 inches. Run-off is rapid on Ovall gravelly loam and erosion is severe.

The Little Si Natural Area also consists of several rock outcroppings (andesite) that are bare rock and devoid of soil cover.

The site is recognized as an erosion hazard according to the King County Sensitive Areas Ordinance, King County Code 21.54 (King County Department of Parks, Planning and Resources, 1990).

## Hydrology

The upper Snoqualmie River Watershed above Snoqualmie Falls has three principal tributaries, the Middle, North and South forks of the Snoqualmie River. The Little Si Natural Area borders the Middle Fork of the Snoqualmie River at river mile (RM) 46 for a distance of approximately 400 feet. The mainstem of the Snoqualmie River continues as the Middle Fork above the confluence with the North Fork. The entire Middle Fork drainage includes over 40 miles of mainstem, plus 60 tributaries that add about 210 linear stream miles to its length (Williams et al, 1975). Above RM 60 the river and its tributaries are within the Mt. Baker - Snoqualmie National Forest.

The river gradient in the reach of the Little Si Natural Area begins to decline and is gentle as the channel remains confined. Channel width ranges from 10 to over 25 yards in close proximity to the Little Si Natural Area reach (Williams et al, 1975). Good pool-riffle balance exists with the bottom composed predominantly of gravel and rubble (Williams et al, 1975). The riverbanks are generally stable with gravel-rubble side beaches and intermittent stands of deciduous trees and underbrush, which provide good cover and shading (Williams et al, 1975).

A small pond is present approximately 400 feet to the east of the Little Si Natural Area on the Washington State Department of Natural Resources Mount Si NRCA property. The pond likely receives water in the form of rain and snowmelt from the southwestern flanks of Mount Si and the eastern slopes of Little Si Mountain. The pond drains westward in the form of a small outlet-stream just below the boundary of Little Si Natural Area eventually flowing into the Middle Fork of the Snoqualmie River adjacent to the 'blue hole'.

## Wetlands

No wetlands have been identified on the Little Si Natural Area (King County Department of Parks, Planning and Resources, 1990).

## Vegetation

The Little Si Natural Area is composed predominantly of forested areas with lesser amounts of open rock outcroppings and grassy openings. Approximately 90% of the natural area is composed of a homogenous second growth conifer stand. The stand is dominated by western hemlock (*Tsuga heterophylla*) that is between 30 - 60 years of age and appears healthy. A few western red cedars (*Thuja plicata*) are also present on the western slopes closer to the banks of the Middle Fork of the Snoqualmie River. The plants in the understory shrub layer include small amounts of salmonberry (*Rubus spectabilix*), snowberry (*Symphoricarpos alba*) and evergreen blackberry (*Rubus lacinatus*).

Several small sections of the Little Si Natural Area contain deciduous trees. The largest concentration of deciduous vegetation is in the southeastern corner along the riparian edge of a small-outlet stream. Lesser deciduous areas are located on the banks of the Middle Fork of the Snoqualmie River and on the borders of rock outcrops. The dominant vegetation includes young red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*) and big-leaf maple (*Acer macrophyllum*). The understory layer includes salmonberry, red elderberry (*Sambucus racemosa*) and vine maple (*Acer circinatum*). Some non-native Himalayan blackberry (*Rubus discolor*) was observed near the outlet stream.

The Little Si Natural Area also contains several small grassy openings on the upper eastern portion of the site. The grasses present have not been identified.

## Fish and Wildlife

The Snoqualmie River system contains the largest amount of remaining high quality salmonid habitat in King County; however, there is no natural salmon utilization above Snoqualmie Falls or in the Middle Fork of the Snoqualmie River drainage. Snoqualmie Falls is a natural barrier to anadromous salmonids. Therefore, naturally occurring salmon are not present in the Little Si Natural Area reach. In the past,

juvenile chinook and coho salmon were known to be occasionally planted to make use of natural rearing potential (Williams et al, 1975). However, it is unknown if this practice is continuing.

The Middle Fork of the Snoqualmie River does support valuable non-anadromous priority fish species including cutthroat (*Oncorhynchus clarki*) and rainbow trout (*Oncorhynchus mykiss*). Other fish species include mountain whitefish (*Prosoplum williamsoni*) and eastern brook trout (*Salvelinus fontinalis*) (King County, 1998). Bull trout (*Salvelinus confluentus*), which are listed as threatened under the Endangered Species Act (ESA), are believed to occur above Snoqualmie Falls (King County, 1998). However, neither bull trout nor Dolly Varden (*Salvelinus malma*), another species of native char, were detected above Snoqualmie Falls during an electrofishing and snorkel survey conducted in the fall of 2000 (Berge and Mavros, 2001)

The Middle Fork of the Snoqualmie River corridor is identified as a wildlife habitat corridor in the King County Comprehensive Plan (2000). The Little Si Natural Area and the surrounding public lands (Mount Si NRCA, Three Forks Natural Area, and Middle Fork of the Snoqualmie Natural Area) provide diverse habitat for a variety of wildlife, including birds and mammals.

Little Si Natural Area provides habitat for a range of bird species. Hawks, owls, woodpeckers, hummingbirds and numerous songbirds use the area. The river shoreline likely attracts species such as the great blue heron, common merganser, mallard, Canadian goose, killdeer and belted kingfisher. The band-tailed pigeon, a Washington State priority species, is known to nest in the area and osprey, a Washington State monitor species, nests in a location two-miles north of the Little Si Natural Area (King County, 1998). Bald eagles are known to live in the area and in 1997, peregrine falcons nested on Mount Si for the first time (King County, 1998). Bald eagles and peregrine falcons are both listed as threatened species under the federal ESA.

Little Si Natural Area offers significant habitat for a variety of mammalian wildlife. Elk are observed in the area and may use the natural area as a travel corridor. It is likely that bear, deer, cougar, bobcat, fisher, beaver and river otter frequent the site. Mountain goats are present on Mount Si, but have never been observed in the Little Si Natural Area. Small mammals that are likely present include moles, shrews, mice and bats.

## Part 5. Site Use and Infrastructure

This section describes public use, access points, and site infrastructure such as trails and roads at Little Si Natural Area.

### Current and Public Use

Public use on a majority of the Little Si Natural Area is fairly limited due to steep slopes and rocky outcrops that make the western flanks of Little Si Mountain virtually inaccessible. However, Little Si Natural Area's strategic location on the Middle Fork of the Snoqualmie River near the 'blue hole' and adjacent to the Washington State Department of Natural Resources Mount Si NRCA makes public use an issue. Most, if not all, of the public use of the Little Si Natural Area results from those who desire to access the river or from visitors who wander onto the natural area from the Washington State Department of Natural Resources lands to the east. It is unlikely that public users seek out the Little Si Natural Area itself for recreational purposes. However, due to the surrounding landscape the Little Si Natural Area provides potential public uses such as swimming, boating, fishing, hiking, rock climbing and nature observation.

The 'blue hole' is named for a deep pool on the right-bank of the Middle Fork of the Snoqualmie River that is popular for fishing and swimming. The 'blue hole' is technically located in the river itself, but is often accessed by crossing the river to a gravel bar on the right-bank adjacent the Little Si Natural Area. Presently, a large tree leans over the river in the vicinity of the 'blue hole' from the Little Si Natural Area. The tree contains a rope swing and small path that is likely accessible only in the summer months.

The adjacent Mount Si NRCA and the newly renovated and located Little Si Trail managed by the Washington State Department of Natural Resources offers the public substantial opportunities for hiking and nature observation as well as access to rock climbing areas. The Little Si Trail loops around the eastside of the Little Si summit and the trail at times is no more than 250 feet from the boundaries of Little Si Natural Area. Although visitors are required to stay on the trail, some visitors likely leave the trail and use the Little Si Natural Area.

## **Access**

Access to the Little Si Natural Area predominantly occurs via the right-bank of the Middle Fork of the Snoqualmie River where the public accesses the 'blue hole' and from visitors to the Mount Si NRCA who leave the designated trail.

The closest vehicular access for King County maintenance of the Little Si Natural Area is via the private road and driveway southeast of the natural area.

## **Trails and Roads**

Little Si Natural Area offers no formal public trails although the highly used and popular Little Si Trail, which is managed by the Washington State Department of Natural Resources and is part of the Mount Si NRCA, is located just east of the natural area. The 2.5 mile trail terminates on the summit of Little Si Mountain. The Little Si Trail Trailhead is located just off Mount Si Road, approximately one mile from North Bend Way and across Middle Fork Bridge.

Little Si Natural Area does not contain any roads.

## **King County Stewardship Activities**

The Little Si Natural Area's ongoing maintenance and stewardship is provided by the Parks Resource Coordinators and documented in the annual Site Maintenance Plan (SMP). The SMP's document on-site tasks that are to be completed for the stewardship and restoration of King County sites. In the last several years (2000 - 2003), the on-site work identified in the SMP's for the Little Si Natural Area has focused exclusively on occasional 'park inspections'.

## **Part 6. Analysis**

This section is intended to integrate site-specific information, public access considerations, and the larger landscape considerations described in the conservation principles section of the King County Ecological Lands Handbook (2003). This section presents the analysis from which site management recommendations will be made.

### **Species of Concern**

Due to the possibility that information gaps exist, the species identified in this document may not account for all species that use the Little Si Natural Area for one or more stages of their life cycle.

Although there is no documented evidence that threatened species utilize the Little Si Natural Area, the presence of bald eagles and peregrine falcons in close proximity make habitat preservation and enhancement a priority. In addition, the possibility that bull trout occur in the Middle Fork of the Snoqualmie River makes it important to protect the Middle Fork reach adjacent to the Little Si Natural Area.

In addition, the existence of chinook salmon and several other species of anadromous salmonids downstream in the lower Snoqualmie watershed, makes it essential to protect and restore the upper Snoqualmie system, including the area around the Little Si Natural Area. Although, the Little Si Natural

Area is small in relation to the overall watershed, maintaining its ecological integrity is important to the overall health of the system.

## **Ecological Processes**

Ecological processes must be maintained for ecosystems and habitats to be sustained. Current conservation theory suggests that where ecological processes are intact, systems are likely to recover – or be recovered – more easily from the disturbance or inappropriate actions (if the actions themselves are not permanent). Conversely, the more interference there has been with the basic ecological processes, the greater the severity and longevity of the effects (King County, 2003). If systems are not functioning properly, management activities should focus on system-wide processes instead of affected elements. Ultimately, management actions that do not consider the processes are less sustainable.

Bearing this concept in mind, management decisions within the Little Si Natural Area should strive to maintain or if possible enhance basic ecological processes. A current assessment indicates that the site's ecological processes, including the movement of water, sediment, nutrients and thermal energy are relatively intact. The Middle Fork of the Snoqualmie River in the vicinity of the Little Si Natural Area is unconstrained and flows relatively freely in the floodplain allowing for gravel transport, natural regeneration of the floodplain and efficient recruitment of large woody debris. Likewise, in the forested component of Little Si Natural Area, processes appear to be largely intact. It is also important to consider that the neighboring landscape processes are also relatively intact.

Little Si Natural Area at this point has no immediate need for enhancement or restoration projects to improve the ecological processes on site. The management of the site should be geared toward allowing natural processes to occur unencumbered. Monitoring of ecological processes should occur on a regular basis to ensure existing processes remain intact and functioning.

## **Ecological Structure and Function**

Conservation principles suggest that by addressing ecological processes on site, structure and function will follow. However, since the ecological processes are relatively intact at the Little Si Natural Area, the next level of intervention would be ecological structure and function. An ecologically diverse and functioning Little Si Natural Area provides numerous ecological benefits such as preventing erosion, shading the floodplain, adding large woody debris to the floodplain, creating a canopy and contributing to biological diversity.

Limited opportunities exist to enhance the structure and function of the Little Si Natural Area. For example, there are opportunities to add an understory vegetation layer in the homogenous second growth conifer stand. This would help to maintain structural complexity and plant diversity. The resulting multi-layered canopy would provide a variety of vegetative and physical features that in turn would provide a number of niches for the various wildlife species that use the site. Additional opportunities exist to enhance the riparian area along the right-bank of the Middle Fork of the Snoqualmie River and control non-native plant species in the Little Si Natural Area reach.

Because the Little Si Natural Area has intact open space and fairly heterogeneous structure, enhancement is not a major concern. The effectiveness of enhancement projects in relation to the cost may make them impractical. Management of the site should be geared toward maintaining the site's structure and function by allowing natural succession to occur.

## **Monitoring**

There are two types of monitoring: 1) monitoring of management actions to determine if they are succeeding in their objectives; and 2) monitoring the processes on lands where no management action is taking place to determine if the management action is needed (King County, 2003). Because natural and social systems are uncertain, dynamic and in a constant state of flux, monitoring information is used to adaptively manage the site.

While a long-term monitoring regime of the Little Si Natural Area would provide an early warning of ecological change on the site, monitoring is not needed at this time due to the absence of enhancement projects and lack of the financial resources. If future projects are initiated or public use increases substantially, an appropriate monitoring framework should be administered. However, King County Department of Natural Resources and Parks staff should monitor public use and ecological impacts to the site as much as possible. Photographic evidence should be kept in order to visualize short and long-term changes.

## **Public Use**

Currently, Little Si Natural Area supports fairly low numbers of visitors due to its absence of trails and relatively steep slopes and rock outcroppings. However, Little Si Natural Area's strategic location on the Middle Fork of the Snoqualmie River near the 'blue hole' and adjacent to the Washington State Department of Natural Resource's Mount Si NRCA makes public use an issue. Most, if not all, of the public use of the Little Si Natural Area results from those who desire to access the river or from visitors who wander onto the natural area from the Washington State Department of Natural Resources lands to the east. It is unlikely that public users seek out the Little Si Natural Area itself for recreational purposes.

Decisions to manage public use on the Little Si Natural Area will inevitably require working collaboratively with adjacent landowners and in particular the Washington State Department of Natural Resources. The popularity of the Little Si Trail, which is in close proximity (250 ft at the summit) to the Little Si Natural Area, inevitably leads to off trail use that can impact the site. In addition, visitors wandering off the trail risk potential injury from the relatively steep slopes of the Little Si Natural Area. It is advisable to post sign to ensure that trail users stay on the Little Si Trail. Consistent monitoring of public use is essential to gauge use patterns and impacts.

The Little Si Natural Area's strategic location on the Middle Fork of the Snoqualmie River near the 'blue hole', a popular swimming and fishing spot in the summer months, also creates public use opportunities and challenges. The small path near a rope swing on the right-bank of the river in the Little Si Natural Area reach doesn't seem to be creating any lasting ecological damage. However, the rope swings do carry potential public safety risks and should be actively discouraged.

At this point in time no revenue generating opportunities are foreseeable at the Little Si Natural Area.

## **Part 7. Management Goals, Objectives, and Recommendations**

The objectives and recommendations in this section are derived from the analyses in the previous sections. Office of Rural and Resource Programs staff will revise the recommendations for Little Si Natural Area within five years, or more frequently when new information from site monitoring programs and other initiatives indicate a need for a change in management strategies.

### **Goals for Little Si Natural Area**

The King County Department of Natural Resources and Parks staff will strive to

- conserve and restore 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 where practicable at Little Si Natural Area. The corresponding matrix (Table 3) designates the King County Department of Natural Resources and Parks staff involved in implementing the specific recommendations.

## Objectives and Recommendations

### *Objective: Protect and enhance the site's ecological resources*

#### ➤ *Recommendation: Monitor for enhancement and restoration opportunities*

King County Department of Natural Resources and Parks should continue to manage the Little Si Natural Area to protect and enhance its ecological resources. While there is no immediate need to initiate enhancement or restoration projects on-site, King County staff should monitor regularly for opportunities to enhance the site's ecological processes, structure and function. Specifically, staff should track changes to the riparian area on the Middle Fork of the Snoqualmie and be vigilant for noxious, invasive and non-native plant species.

### *Objective: Manage collaboratively with adjacent landowners*

#### ➤ *Recommendation: Work collaboratively with Washington State Department of Natural Resources to address ecological and public use issues*

King County Department of Natural Resources and Parks should work collaboratively with the Washington State Department of Natural Resources to effectively manage and address the ecological and public use issues at the Little Si Natural Area. Staff should attend planning meetings, conduct field inspections and address concerns cooperatively with Washington State Department of Natural Resources to ensure consistent management.

#### ➤ *Recommendation: Transfer Little Si Natural Area to Washington State Department of Natural Resources*

King County Department of Natural Resources and Parks should proactively engage the Washington State Department of Natural Resources to negotiate the transfer of the Little Si Natural Area to the state. The transfer may occur in the form of a purchase, donation or trade of comparable lands. The transfer of the Little Si Natural Area would assign management responsibilities to the Washington State Department of Natural Resources and connect key parcels under one management authority.

The negotiations would be beneficial for both King County Department of Natural Resources and Parks and the Washington State Department of Natural Resources. For the Washington State Department of Natural Resources a vital section would be added to the Mount Si NRCA. For the King County Department of Natural Resources and Parks scarce resources may be better deployed at other sites.

### *Objective: Allow levels of public use that do not impact ecological resources*

#### ➤ *Recommendation: Implement preserve and protect measures*

The Little Si Natural Area includes some limited low impact public use, predominantly as spillover from visitors to the Mount Si NRCA and users of the Middle Fork of the Snoqualmie River. King County Park staff should limit public use in sensitive areas or around steep slopes. King County Department of Natural Resources and Parks staff should work closely with the Washington State Department of Natural Resources to recommend and maintain any improvements to protect the site from inappropriate public uses and address safety issues. This should include installing signs and removing rope swings.

#### ➤ *Recommendation: Monitor public use*

King County Department of Natural Resources and Parks staff should note and record changes in public use and amount of visitation that the Little Si Natural Area receives. Noticeable visitor impacts on the

ecological resources of the site should be recorded. Information should be gathered, coordinated and exchanged in cooperation with the Washington State Department of Natural Resources.

This information should be reported annually to King County Natural Resources Lands Program for updating and adapting site management guidelines.

**Objective: Implement site management guideline recommendations**

➤ **Recommendation: Site maintenance plan creation**

King County Park staff should prepare a site maintenance plan for Little Si Natural Area that incorporates these site management plan recommendations. King County Natural Resource Lands staff and the Snoqualmie River Basin Stewards should collaborate on this effort.

➤ **Recommendation: Coordinate implementation of site management guideline recommendations**

King County Natural Resource Lands staff should monitor the recommendations in the site management guidelines and coordinate with the various programs responsible for implementing these recommendations to facilitate their timely accomplishment.

King County Natural Resource Lands staff should coordinate with Snoqualmie River Basin Stewards and King County Park staff to revise the site management guidelines as needed.

**Table 3.** Matrix of Little Si Natural Area Management Recommendations

<b>Recommendations</b>	<b>Cost</b>	<b>Year</b>	<b>Park Resource Staff</b>	<b>Basin Steward</b>	<b>WRIA Project Coord.</b>	<b>CPOSA/ Contract</b>	<b>WEAT</b>	<b>GIS</b>	<b>NRL staff</b>
<b>Priority One</b>									
Implement preserve and protect measures		On-going	X						X
Work cooperatively with the Washington State Department of Natural Resources		On-going	X	X					X
Monitor public use		On-going	X						
Site maintenance plan creation		Annual	X	X					X
<b>Priority Two</b>									
Transfer site to Washington State Department of Natural Resources		2005 - 2007	X	X	X				X
Coordinate implementation of site management guideline recommendations		On-going	X	X					X
Monitor for enhancement and restoration opportunities		On-going	X	X					X

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