



# Coho Preserve



## Draft Stewardship and Management Plan June 2017

Adopted by the Land Bank Commission:  
Approved by the Sand Juan County Council:

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## **Stewardship Goal**

*The Land Bank's stewardship goal for the Coho Preserve is to preserve and maintain a healthy riparian corridor and associated uplands; to monitor and advocate for adequate water flow for fish, including Coho salmon and Cutthroat trout; to compile and maintain data on fish utilization of the lower creek, including habitat typing, population, age class, and spawning surveys; and to provide pedestrian trail access for public enjoyment and education.*

# Coho Preserve Stewardship & Management Plan

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## **I. Introduction**

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The 24-acre Coho Preserve protects 1,200 feet of lower Cascade Creek and the freshwater outflow at the head of Buck Bay. Buck Bay is a tidal estuary currently used, in part, as an oyster and clam farm, and where the Land Bank and San Juan Preservation Trust own nearby shoreline and tideland conservation lands. (Buck Bay West and Golithon Preserves). At the outlet to Buck Bay, Cascade Creek passes under a bridge on Point Lawrence Road which was upgraded in 2011 to facilitate passage of salmonids and allow for unimpeded tidal exchange. The riparian corridor above the bridge is quality salmon habitat for 300 feet. Natural gravel beds, woody debris, native vegetation, and a stand of mature conifers along the drainage and throughout the contiguous upland buffer provide ideal conditions for fish and other wildlife, including river otter, American dippers, Pileated Woodpeckers, and red-tail hawks.

The total watershed area of Cascade Creek is roughly 2,750 acres, of which approximately 1800 are protected in Moran State Park. While the Coho Preserve is a small fraction of the whole, the terminal portion is one of the most critical areas in the watershed. Land Bank stewardship will help ensure long-term protection of an essential section of the stream corridor that is particularly valuable for native fish species.

The purpose of this Stewardship and Management Plan is to provide long-term management guidelines. Two themes provide a context for discussing stewardship of the Coho Preserve:

- 1) Protection of the creek to preserve and enhance conditions for salmonids and other fish species, and;
- 2) Site-appropriate public education and low impact enjoyment

This plan devotes a section to each of these themes, with sub-headings detailing objectives, stewardship tasks, and monitoring protocols.

**Objectives** describe the long-term vision. **Stewardship tasks** outline specific actions toward the achievement of that vision. **Monitoring protocols** provide the methods to measure progress towards reaching and maintaining our stewardship objectives.

While this plan attempts to be as descriptive as possible, stewardship is an adaptive process that must respond to changing environmental and social conditions. The rising population and increased development of San Juan County will put new pressures on the Coho Preserve over time. Climate change will shift physical dynamics and processes in ways we cannot predict. With regular monitoring and review, the Land Bank will evaluate the effectiveness of our stewardship policies and priorities, and update or revise the plan as necessary.

## **II. Ecological Resources**

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Cascade Creek is one of the few remaining salmon spawning streams in San Juan County. The lower creek corridor is in relatively pristine condition with 300 feet suitable for spawning.

Numerous studies have demonstrated the importance of freshwater streams to foraging salmon species, especially Chinook (Beamer, et al., 2013; Nelson and Temple, 2005). Lower Cascade Creek has been utilized by coho and chum salmon and sea run coastal cutthroat trout (Boessow, WDFW, 2007, DeGroot 2016). It also provides high quality foraging habitat for juveniles of these species and Chinook salmon (Boessow, DFW, 2007). The presence of each of these species in the creek has been documented by at least two studies (Boessow, WDFW, 2007; Glasgow, WFC, personal communication). Protection of the stream corridor and adjacent uplands will help ensure the existing structure and function of this area remains intact and conditions that support fish species are maintained.

Coho Preserve includes a forested buffer of mature, mixed species conifer-dominated Puget lowland forest. In-stream water rights for year-round flow to the creek have been secured through the Washington Water Trust, and along with the 2011 bridge replacement, helped improve fish passageway to Buck Bay. Careful stewardship of this parcel is integral to insuring viable salmonid habitat into the future and preserving a small but significant spawning population.

The Land Bank holds habitat protection as the paramount goal of its stewardship program. Maintaining an area's ecological health will also preserve its scenic and open space character. Public access, where appropriate, is designed to minimize impacts on the property's ecological resources. If monitoring reveals that impacts are not being controlled, public access may be restricted or discontinued. The objectives and tasks outlined below provide guidelines for protecting the ecological values of the Coho Preserve.

### **II A: Objectives**

- *To maintain the fish-bearing habitat qualities of Coho Preserve in good condition.*
- *To expand the understanding of the preserve's ecological function and value through conservation, education, and research.*

### **II B: Stewardship Areas and Tasks**

#### *1. Priority Habitats and Species:*

Protection of habitat, especially for Coho, is the number one priority for WRIA2. As one of the three remaining fish-bearing streams in San Juan County with documented juvenile Chinook, this species is a management priority.

Stewardship tasks to protect priority habitats and species include:

- Signage denoting use restrictions for habitat protection and restoration
- Designing and directing public use away from sensitive areas
- Documenting how and when fish species utilized the preserve
- Measuring and monitoring for adequate fresh water flows
- Regular monitoring of impacts from human and natural processes
- Continued monitoring for the presence of other priority species

## *2. Water Resources*

Ensuring adequate flow and quality of water in the Coho Preserve is a high priority.

Tasks will include:

- Monitoring flows, particularly during spawning season
- Controlling erosion
- Working with up-stream neighbors to reduce introduction of pollutants
- Working with water rights holders, including agencies, private water systems, and Washington State Parks.
- Maintaining native vegetation buffers
- Addressing changes in flow due to natural disturbance

## *3. Vegetation Management*

Fire suppression, logging and other human activities have impacted plant communities and patterns of succession throughout San Juan County, including, to some extent, Coho Preserve. In some cases, species or whole communities can be lost without management intervention. While plant communities at the Coho Preserve do not currently appear to be threatened, vegetation management, particularly control and removal of invasive species, will be an ongoing aspect of site stewardship.

## *5. Fire Management:*

The absence of a natural fire regime in forest systems can lead to the build up of combustible materials over time, increasing the risk of a major wildfire event. The Land Bank may consider specific management actions to reduce the threat of wildfire at Coho Preserve. Such actions may include:

- Maintenance of trails and old roads as fire breaks
- Thinning or removal of hazardous vegetation
- Use restrictions during times of peak fire danger

## 6. Invasive Species:

The spread of invasive species ranks second only to habitat loss as a threat to global biodiversity. The Land Bank puts a high priority on controlling populations of invasive species on its properties. Known “Class B & C” invasive species at Coho Preserve include tansy ragwort (*Senecio jacobaea*), herb Robert (*Geranium robertianum*) and travellers’ joy (*Clematis vitalba*). Also of concern are European Hawthorn and holly. Significant stands of Scotch broom on neighboring parcels will require diligent monitoring of the preserve boundaries.

Specific actions may include:

- Monitor and control known noxious and invasive species
- Monitor for new occurrences
- Work with neighboring landowners to control spread of invasive species

## 7. Education and Research:

The Land Bank will encourage a deeper understanding of all of Coho Preserve’s ecological values through cooperation with students, scientists and interest groups, including university and post-graduate researchers. Education and research activities will be conducted on the preserve after careful review of written proposals and with permission only.

Specific activities may include:

- Guided natural history walks
- Conservation education field trips
- Interpretive signage
- Training volunteers to assist with fish monitoring

## 8. Use Restrictions: (see Appendix B for a complete list)

- Collection of botanical, zoological, geologic or other specimens prohibited except on a written permission-only basis for scientific or educational purposes.
- Pedestrian access only on designated trails.
- Dog must be leashed.
- Day use only
- No hunting or fishing

## **II. C. Monitoring Protocols**

Monitoring protocols must be designed to answer specific management questions. At Coho Preserve, such questions will be developed over time as critical stewardship issues come into focus. The Land Bank follows several policies that will help identify these issues and develop appropriate protocols. As a requirement of access to Land Bank Preserves, researchers must share the results of their studies and make data available for management purposes. On-going studies are encouraged, as they can provide an

excellent monitoring protocol in their own right. In the case of the Coho Preserve, periodic fish inventories will help track population trends. The Land Bank also develops ecological assessments for all of its fee-owned properties. These documents are updated regularly through field visits by Land Bank staff and others. Additionally, volunteers provide observations and report activities and conditions of Land Bank properties. Finally, photographic monitoring is a regular part of Land Bank baseline documentation and stewardship. Updated regularly, photographs from set points provide a continuous history of a property and help set a framework for the limits of acceptable change.

### **III. Public Access**

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Public access for low-intensity recreation is an element of the Land Bank's mandate. Coho Preserve is well suited for such access, but it must be designed to minimize impacts on the land's ecological and scenic qualities. As at all Land Bank preserves, the benefits of access must be balanced against its risks, with the caveat that it may be discontinued if visitor impacts prove unmanageable. The following objectives and stewardship tasks serve as a guideline for establishing appropriate levels of safe, low impact public access at Coho Preserve.

#### **III. A. Objectives**

- *To maintain the possibility for safe, low-intensity recreational access that does not detract from its aesthetic and ecological qualities.*
- *To protect the land's natural resources and ensure that each visitor has a quality experience.*

#### **III. B. Stewardship Tasks**

##### *1. Level of Use:*

Maintaining an appropriate level of use is an essential element in protecting Coho Preserve's ecological function and natural character. The Preserve will face increasing use pressures over time from the rising population of Orcas Island and the growing demand for recreational areas by both residents and visitors. Use can be controlled in a number of ways, from restrictions and signage, to the availability of parking. The Land Bank will incorporate a variety of tools to monitor use levels and impacts at Coho Preserve, as outlined below under Monitoring Protocols.

##### *2. Safety:*

Hiking, nature viewing and other low-intensity recreational activities all include a certain level of danger, but the Land Bank will make every effort to reduce the risk of injury to visitors at Coho Preserve. Stewardship tasks to enhance public safety may include:

- Signage that guides visitors to remain on maintained trails

- Directing visitor use away from hazards
- Utilizing fencing and barriers as needed

### *3. Trails:*

A loop trail at Coho Preserve will showcase the property's habitat diversity and allow for enjoyment of the forest and creek views.

Management guidelines related to trails include:

- Directing trails away from sensitive ecological and cultural areas
- Directing trails away from property boundaries
- Directing trails away from safety hazards
- Providing benches at appropriate viewing locations

### *4. Commercial Use:*

Commercial use is defined as the use of a property by any group or individuals engaged in a for-profit business operation. Such operations include whale watching tours, sightseeing tours, bicycle tours, guided hiking trips, etc. Land Bank policy prohibits commercial use of its preserves, but does consider proposals and historical uses on a case by case basis, provided that such activities do not adversely impact the conservation value of the property. No commercial use currently exists at Coho Preserve.

### *5. Disabled Access:*

Much of the terrain at the Coho Preserve will prohibit universal access, but the Land Bank will consider access options for the first 300 feet of the trail which is level and wide enough to accommodate wheelchairs, walkers, and strollers.

### *6. Parking and Other Facilities:*

A parking area that can accommodate several vehicles will be installed in a cleared area adjacent to the existing driveway. A kiosk with interpretive signage and a map will be installed at the trailhead. No toilets or other facilities are planned for this site.

### *7. Maintenance:*

Maintenance at Coho Preserve will include trail care, seasonal mowing, invasive species control, litter pick-up, and the care of signs and parking area. These activities will be conducted by Land Bank stewardship staff, with assistance from volunteers.

### *8. Enforcement:*

Signage and contact from Land Bank staff and volunteers is used to educate visitors about use restrictions at all preserves. When necessary, enforcement actions are carried out through cooperation with the San Juan County Sheriff's office. The need for patrols at Coho Preserve will be evaluated as patterns of use develop. Night checks of preserve

parking areas are incorporated into sheriff's department routines, as no overnight parking is allowed.

#### *9. Boundary and Trespass Issues:*

The Land Bank will take steps to discourage the public from trespassing on private land neighboring Coho Preserve. At the request of neighbors or at the Land Bank's discretion, signs will be placed along property lines identifying public land boundary and discouraging trespass. Additionally, to the extent possible, trails will be routed away from property boundaries. Topographic features will be utilized to direct pedestrians, and where necessary, cedar rail fences may be used to mark property lines and prohibit off-trail activity. Having a clear and consistent policy regarding public access being limited to on-trail use only has proved a powerful message to preserve visitors at other sites.

#### *10. Volunteer Stewards:*

The Land Bank will invite interested neighbors and citizens to serve as Volunteer Stewards for the Coho Preserve. Stewards will help the Land Bank meet its stewardship goals through regular visits to the property to observe its condition and level of use, and may also be involved in maintenance, invasive species control, and monitoring of priority species.

### **III. C. Monitoring Protocols**

As noted under Ecological Resources, monitoring protocols need to be designed to answer specific questions. In terms of public access, the most important issues are the level of use and the impact that use is having on the area's cultural, scenic and natural resources. Protocols for particular impacts will be developed as use patterns become clear, but level of use can be monitored continually.

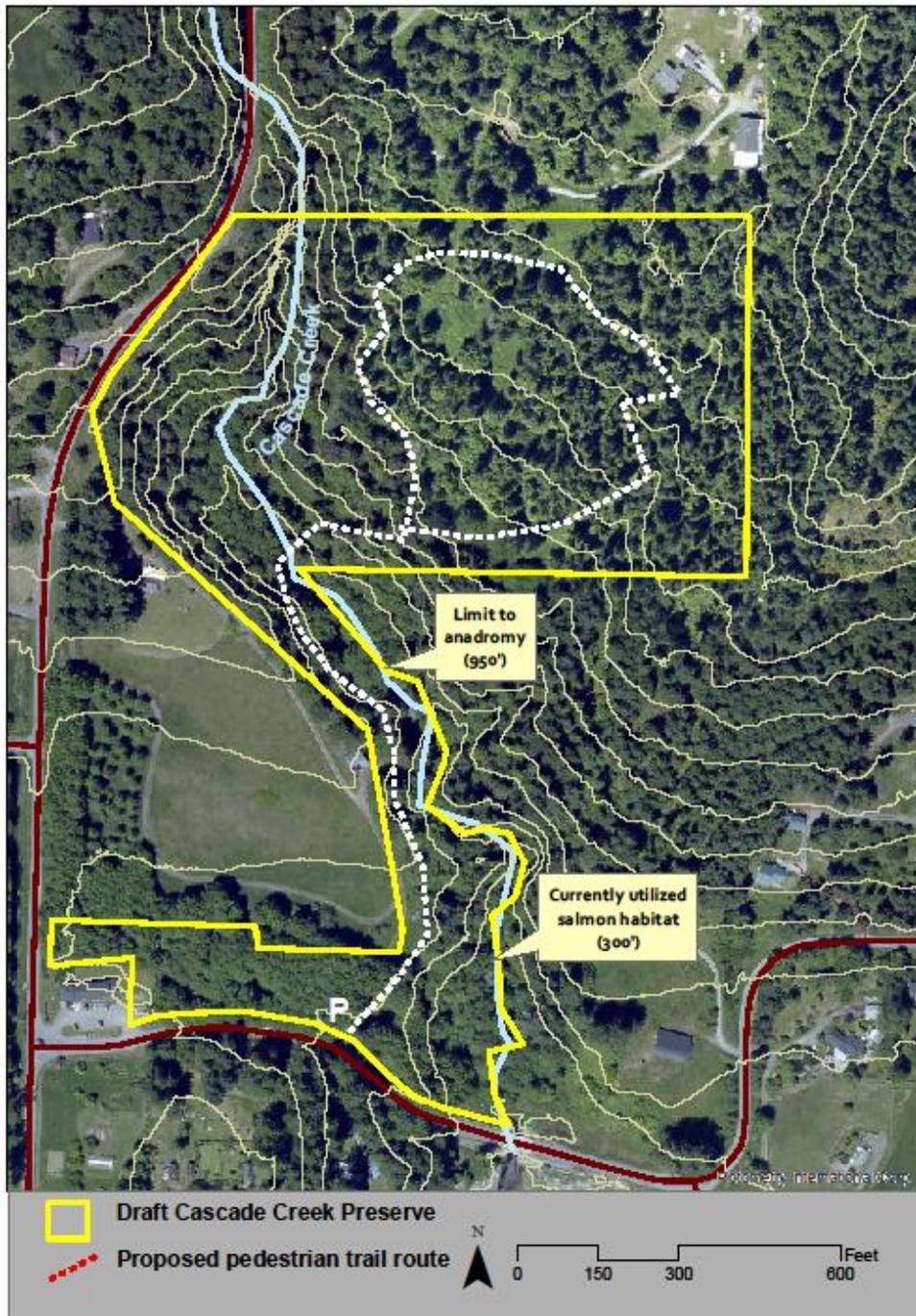
#### *1. Level of Use:*

A minimum of twice weekly monitoring, particularly during the first year, will provide stewardship staff with information on levels and patterns of use at Coho Preserve. Increases in use or adverse impacts will trigger a management review.

Management responses to inappropriate uses may include:

- Restrictions on hours of use
- Seasonal or permanent closure
- Additional signage and/or increased staff presence

# Appendix A: Site Map



## **Appendix B: Summary of Use Restrictions**

The following use restrictions will be in effect for Coho Preserve. They will be posted on site and mentioned in literature describing the Preserve.

- Pedestrian use on designated trails only
- Dogs must be leashed
- No fishing or swimming
- No camping – Day Use Only
- No fires
- No horses or bicycles
- No hunting or discharge of firearms
- The use of metal detectors is prohibited
- No collection of botanical, zoological, geologic or other specimens except on a written permission-only basis for educational purposes
- No collection of historical or archaeological artifacts.
- No commercial use

## **Appendix C: Priority Habitats and Species**

Definitions for Priority Habitats, Areas and Species are based on the Priority Habitats and Species Manual, published by the Washington Department of Fish and Wildlife (WDFW), with some adjustments for local conditions. A comprehensive ecologic inventory will be conducted at the Coho Preserve.

### *Priority Areas:*

- Critical Habitat Area for Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*)

### *Priority Species:*

- Pileated woodpecker (*Dryocopus pileatus*) – candidate for state listing
- Columbia black-tailed deer (*Odocoileus hemionus columbianus*) – state recreationally important species

### *Notes:*

- While recreationally and commercially important species receive status under the WDFW list (i.e. Columbia black tail deer), they are not be as high a management priority in San Juan County as the more rare and sensitive species.
- The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires federal fishery management plans to describe the habitat essential to the fish being managed and describe threats to that habitat from both fishing and non-fishing activities. In addition, in order to protect this Essential Fish Habitat (EFH), federal agencies are required to consult with the National Marine Fisheries Service (NMFS) on activities that may adversely affect EFH. The Pacific Fishery Management Council manages the fisheries for coho, Chinook, and Puget Sound pink salmon and has defined EFH for these three species. While the EFH needs of all these species at each life stage is considered as a whole, the EFH for the Pacific coast salmon fishery is broad, covering freshwater, estuarine, and marine environments.

## **Appendix D: Site Enhancement and Maintenance Budget**

Anticipated stewardship costs for the Coho Preserve are categorized as annual, 5-year, and 10-year expenses as required by the Land Bank's enabling legislation. Monitoring and maintenance are annual expenses, which are projected to grow at 3% per year due to inflation.

	<u>Annual Cost</u>
Monitoring	
Routine monitoring, average of once per week, 1.5 hours per visit	\$3350
Annual monitoring, 6 hours per single visit + reporting	300
Monitoring equipment for fish & water flows	3000
Maintenance	
Noxious weed removal, 4X/year @ 5 hours/visit	630
Signage maintenance	125
Enhancement for Public Access	
Signage	2800
Boundary markers	300
Trail	970
Fences & benches	1900
Parking area & gate	5700
Resource Assessment	
Ecological	1200
Riparian/Habitat Survey	1500
<b>Total</b>	<b>\$21,775</b>
 <u>Five Year Expenses</u>	
Annual Monitoring and Maintenance, years 2 - 5	17,620
Contracted fisheries biologist	15,000
<b>Total</b>	<b>\$32,620</b>
 <u>Ten Year Expenses</u>	
Monitoring and maintenance, years 6 – 10	22,025
<b>10 Year Total</b>	<b><u>\$76,420</u></b>

**Annual Volunteer Hours: 260**