



U.S. Fish & Wildlife Service

# Nisqually National Wildlife Refuge

June 2001 - Planning Update #6

## SINCE THE LAST PLANNING UPDATE:

Thank you for your patience since the last Comprehensive Conservation Planning Update (December 1998). In that update, public workshops on estuarine restoration, grassland management, and public use were highlighted. We also announced the construction of the new Visitor Center.

Since December 1998, several major changes have occurred at the Refuge:

- Jean Takekawa replaced Bill Hesselbart as Refuge Manager. Bill retired in July, 1999.
- We opened the new Visitor Center, office, maintenance shops and a 1-mile loop boardwalk trail.
- The Nisqually Tribe purchased the Braget farm east of the Nisqually River (see article on page 5).
- The Refuge responded to the February 28th Nisqually earthquake (see article on page 5).
- Fall chinook and bull trout were listed as threatened under the federal Endangered Species Act.

## WHAT TOPICS WILL BE EXPLORED IN THE PLAN?

- Refuge Boundary Expansion
- Estuarine Restoration
- Freshwater Wetlands Management
- Environmental Education
- Location of Trails
- Waterfowl Hunting
- Fishing and Shellfishing
- Boating and Jet Skiing

A DRAFT PLAN WILL BE RELEASED IN WINTER, 2001 FOR PUBLIC REVIEW



Open space farmland with existing restrictions on development south of Interstate 5 (photo by Donny Smith)

## Refuge Expansion under Consideration in Plan

When Nisqually National Wildlife Refuge was established in 1974, the boundaries were based on an urgent need to protect the Delta, which was threatened by development. Now, the U.S. Fish and Wildlife Service has the opportunity to consider making greater contributions to the protection and restoration of the lower Nisqually River watershed and Delta to benefit the area's fish, wildlife, and plants.

As part of the Comprehensive Conservation Planning (CCP) process, expansion of the Refuge boundary has been identified as a means to achieve some of the Refuge goals and objectives.

The land protection goals and objectives are:

- to protect important freshwater wetlands and riparian habitat;
- to protect movement corridors for wildlife and fish;
- to protect habitat for the federally listed threatened chinook salmon and bull trout;
- to restore upstream land so as to maintain fish and wildlife habitat and improve Refuge water quality;
- and
- to provide new wildlife-dependent recreation and education opportunities.

The Refuge is forming alternatives for potential expansion of the Refuge and we have identified a Study Area which includes three distinct habitat types as described on the next pages.

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## WILDLIFE PRESENT WITHIN THE STUDY AREA



*Great blue heron USFWS Photo*



*Chinook salmon*



*Downy woodpecker (photo by V. Anderson)*

## Habitats and Wildlife in Expansion Study Area

The Study Area for the Refuge expansion encompasses a total of 5,390 acres, including portions of the McAllister Creek drainage (2,231 acres); the Nisqually Valley and River corridor (2,363 acres); and the bluffs east of Nisqually River (East Bluffs - 796 acres). See facing map.

**McAllister Creek:** The McAllister Creek section of the Study Area is dominated by steep bluffs along the western shore of the creek, but also includes freshwater pothole and upland depression wetlands with stands of sedge, bulrush, willow, and salmonberry.

Based on the habitats present, we would expect to see a variety of passerines, woodpeckers, raptors, and waterfowl inhabiting the area. In addition, fish species would include chinook (federally listed as threatened), coho, chum, and steelhead.

**Nisqually Valley and River Corridor:** Black cottonwood, red alder, bigleaf maple, Douglas-fir, and western red cedar dominate the forested Nisqually River corridor. The Nisqually Valley

includes seasonally flooded wetlands and agricultural lands.

The Nisqually Valley and River Corridor would support numerous resident species, many indigenous to the Pacific Northwest, including: long-toed salamander; red-legged frog; great blue heron, belted kingfisher; water vole, beaver; and river otter. Waterfowl and shorebird species that can be found in this area include American wigeon, mallard, pintail, Canada geese, dunlin, and dowitchers. The Valley and Corridor also support passerines, woodpeckers, raptors, chinook, coho, chum, steelhead, and pink salmon.

**East Bluffs:** This area is covered with coniferous forests dominated by Douglas-fir. These forests support various songbirds, woodpeckers, and raptors.

**How will expansion of Nisqually National Wildlife Refuge affect you?** We invite your comments and input. Let us know what you think. Feel free to drop us a note (address on back page) or call.

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### For More Information On-Line:

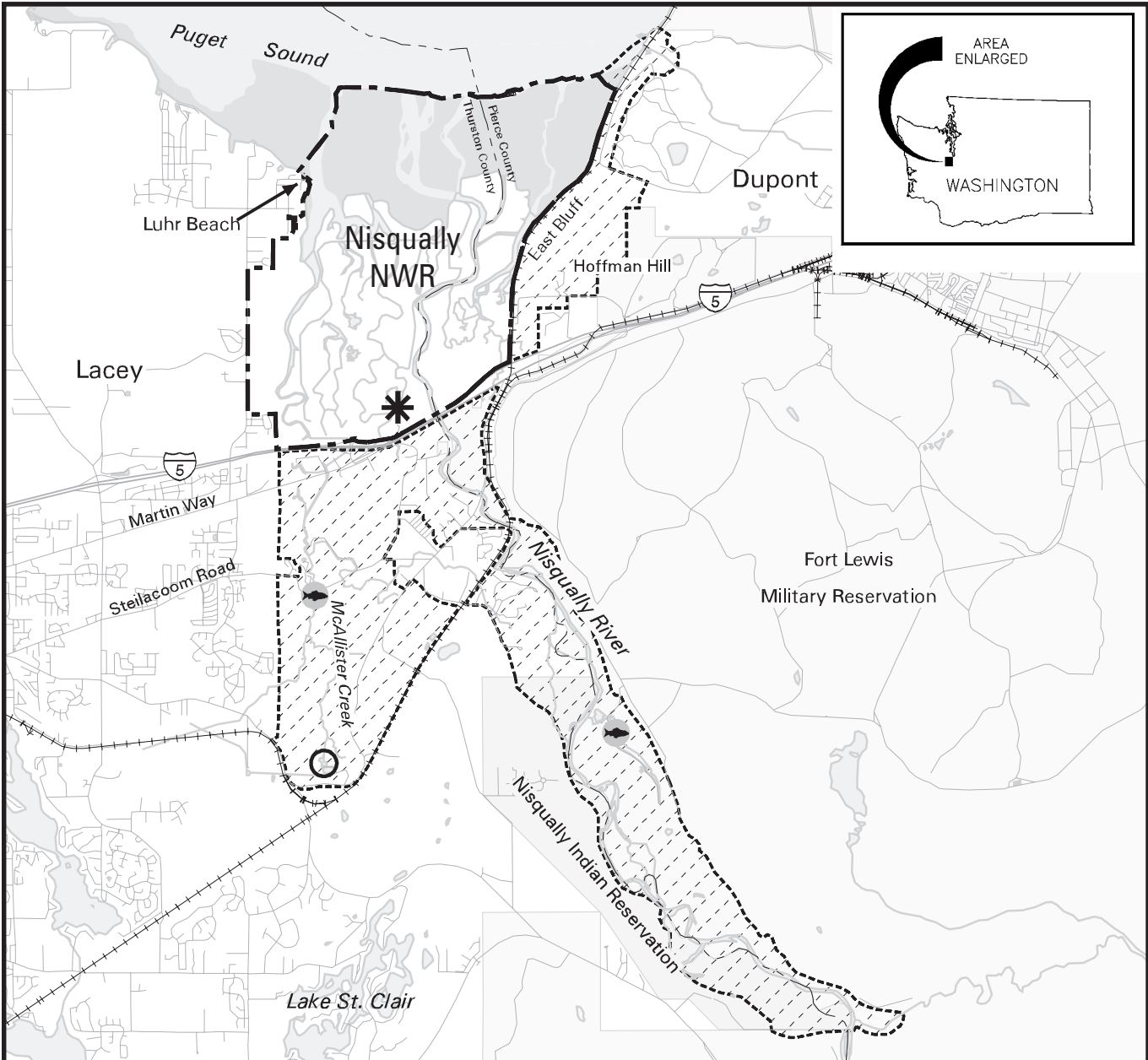
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

*Wood Duck (USFWS photo)*

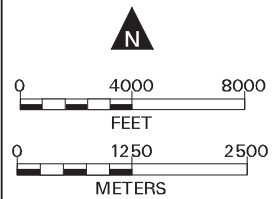


*Bald eagle (Photo by J&K Hollingsworth)*



REFUGE BOUNDARY EXPANSION STUDY AREA  
 NISQUALLY NATIONAL WILDLIFE REFUGE

-  Study Area
-  Refuge Headquarters
-  Fish Hatcheries
-  Approved Refuge Boundary
-  Railroads
-  McAllister Springs



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*American widgeon* (photo by C. Vadai)



*Cedar waxwing* (photo by C. Vadai)

## Questions on Your Mind

### Why consider expanding the Refuge boundary?

Many things have changed since the Refuge was established more than 25 years ago. Increased development has resulted in habitat loss and degradation throughout the Puget Sound area, contributing to declines of many fish and wildlife. A strong ecological connection exists between Refuge habitats and the Nisqually Valley and River Corridor. Many fish and wildlife that use the Refuge also depend on habitats in these areas that could benefit from greater protection and restoration. More effective protection of the lower watershed, and habitat and water quality have become increasingly important in the face of growing development pressures.



*Luhr Beach Boat Ramp with East Bluffs and Mt. Rainier in distance (photo by Donny Smith)*

### How will I benefit if the refuge is expanded?

Refuges enhance the quality of life for local residents by preserving the region's ecological value and aesthetic beauty. Communities also benefit from open space which does not burden the municipal infrastructure. Other benefits include increased opportunities for wildlife-dependent recreation which may attract visitors to the area, increasing local tourism revenues.

### Will all the land within the Study Area become part of the Refuge addition?

A Study Area is first identified to focus habitat evaluation on a specific geographic area. Habitat conditions and other factors are evaluated by the Planning Team to determine what

lands, if any, should be included in a refuge Study Area. The team then develops alternative refuge boundary locations and potential habitat protection measures which are presented for public review and comment in the Draft Environmental Impact Statement and CCP. In these documents, the Service identifies which lands within the Study Area are most appropriate for protection in order to fulfill the purpose of the proposed refuge.

### How is it determined what lands will be included within the final refuge boundary?

After the public comments on the Draft EIS/CCP, the team reviews the comments and develops a final preferred alternative that identifies the preferred boundary and habitat

protection measures. The plan is then forwarded to the Director of the U.S. Fish and Wildlife Service, who determines which course of action, if any, the Service will take.

### What does an approved refuge boundary mean?

An approved refuge boundary identifies important and sensitive resource areas. Landowners within an approved refuge boundary retain all the rights, privileges, and responsibilities of any private land owner. After the Director approves a refuge boundary, the Service has the authority to pursue the acquisition of land, can make offers to purchase land, or enter into management agreements with willing landowners within the approved boundary. Lands do not become part of the National Wildlife Refuge System until they are acquired or are placed under a management agreement with the individual landowner.

### What types of interests in lands can the Service acquire?

Often, the Service acquires all rights in the property by fee-simple purchase. Other options available include a conservation easement, cooperative agreement, and donation. Owners sometimes choose to donate all or a portion of their land as a lasting memorial or for tax purposes.



*Fishing access within the Study Area located on the Nisqually River at Trotter's Woods, Fort Lewis Military Reservation.*

*(photo by Donny Smith)*

## Funding Received for Protection of the East Bluff

Congress appropriated \$2 million for land acquisition at Nisqually this last fall. These funds are targeted for acquisition of forested uplands east of the existing Refuge boundary. If lands are acquired in this area, it would provide strengthened watershed protection, an important wildlife corridor, and provide better long-term protection of the Nisqually River corridor and Delta.

## Earthquake Rattles Nisqually Refuge

Nisqually Refuge had the unique distinction of being at the epicenter of the 6.8 magnitude earthquake that shook the Pacific Northwest on February 28, 2001. The epicenter was located in the Delta in the northeastern portion of the Refuge.

The ground undulated, trees swayed violently, and the water in the pond behind the Visitor Center rippled and moved. Birds flushed and some left the area. There was a lot of movement in the buildings, deck, and boardwalk trails.

Liquefaction of soils occurred throughout the Refuge, and water spouts shot up as high as 2 feet during the quake. Evidence of this liquefaction can be seen in the many sand boils left behind. These are mounds of sandy soils and fine muds that were pushed up by water spouts.

Fortunately, nobody was harmed. The new buildings, although structurally sound, suffered damage to walls, doors, pilings, and roofs. We closed the North Twin Barn to public use due to shifting and damage in walls and foundations, which required moving the environmental education program into

## Cooperative Agreement in Process with Nisqually Tribe

The Nisqually Indian Tribe recently purchased the Braget Farm, including two tracts within Nisqually Refuge boundaries east of the Nisqually River. Congress recently passed Public Law 106-291, which required that the lowlands be managed as part of the Refuge in perpetuity. The Nisqually Tribe and Nisqually Refuge are currently developing a Cooperative Agreement that will allow the lands to

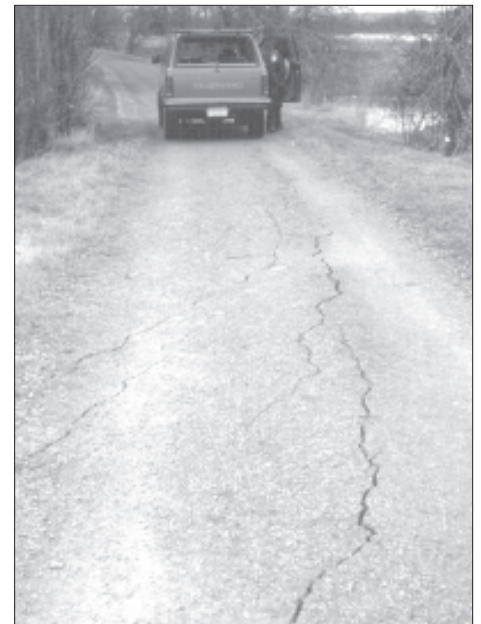
be managed by the Service as part of Nisqually Refuge for 25 years. The State and Tribe are developing a conservation easement over the entire Tribal ownership restricting future development. The Tribe is proceeding with plans to restore historic estuarine habitat on portions of the property. Management of the two tracts within the current Refuge boundary will be included as part of the CCP planning process, including public use management.



*View of Braget Farm with Refuge in background (photo by Donny Smith)*

a temporary trailer. A replacement facility is urgently needed for this key Refuge program.

Extensive damage occurred on the main dikes. A 500-foot dike section along McAllister Creek had multiple fractures up to 6-foot deep and areas of dike subsidence. The spur trail area was immediately closed to the public and covered with plastic to try to prevent further fracturing due to water penetration. (The main 5 ½ mile loop trail remains open to the public.) Thousands of lineal feet of cracking also occurred on the main dikes. The extensive fracturing illustrates the poor structural condition of these old dikes. Repair and maintenance of the dike system will now be even more challenging and costly. These factors will be considered as tidal restoration alternatives are developed as part of the CCP process.



*The earthquake caused thousands of lineal feet of cracking in the main dike, showing the poor structural condition of these old dikes. (Photo by David Pitkin)*

## Partners Aid in Habitat Restoration at Nisqually Refuge

Last summer the Refuge and partners undertook a habitat restoration project to benefit wildlife and improve public viewing opportunities at the wetland behind the Visitor Center. Cattail had formed dense, solid stands that limited the amount of open water; and non-native reed canary grass and Himalayan blackberry had taken over large areas on the edge of the wetland and in the uplands. Non-native plants out-compete natives while providing minimal nesting and feeding areas for wildlife.

To provide more open water habitat for waterfowl, waterbirds, river otters, and other wildlife, the wetland bottom was first deepened and contoured using heavy equipment. Over winter, a Washington Conservation Corps crew and Refuge



*Restored wetland at Nisqually's new Visitor Center (photo by Doug Roster)*

*This project is a partnership with funding from Ducks Unlimited, Washington Conservation Corps, National Fish and Wildlife Foundation, Packard Foundation, and Washington Department of Fish and Wildlife.*

staff planted over 7000 stems of 14 different trees and shrubs in the areas surrounding the wetland work. Many of the plants are protected by a blue plastic sleeve to reduce browsing impacts from rodents and deer while they become established.

This summer, work will occur in the wetland between the boardwalk and the new shop buildings, and the wetland area near the north end of the boardwalk.

Heavy equipment will again be used to enlarge and deepen the wetlands. Next winter, trees and shrubs will be planted in the upland areas to benefit songbirds and increase native plant diversity.

Although the wetlands are disturbed during and after construction, they will heal quickly and be productive once water levels return to normal.



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*Have you moved? If so, please send  
us updated address information.  
Thanks!*