

# **Tualatin River National Wildlife Refuge Visitor Services Mini-Review for the Comprehensive Conservation Plan**

Prepared for

**U.S. Fish and Wildlife Service**

Prepared by



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October 29, 2010

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## **INTRODUCTION AND PURPOSE**

The Tualatin River National Wildlife Refuge hosted a one-day visitor services review on October 14, 2010. The meeting and tour brought together a team of professionals to review the current visitor services programs and make recommendations regarding programs and facilities that could be considered in the future.

This document discusses the issues, opportunities, and concerns identified by the review team, which will aid in developing and evaluating alternatives for the refuge's comprehensive conservation plan (CCP). It attempts to accurately summarize significant comments made during the review. No attempt has been made to verify the accuracy of the comments or to respond to them.

The purposes of this review were to:

- Assess existing visitor uses, program and facilities, identifying issues, concerns and opportunities that should be addressed in the CCP;
- Identify additional opportunities for visitor uses and visitor services programs and facilities that should be evaluated in the CCP, particularly at the Wapato Lake Unit; and,
- Identify inventory, monitoring, and research needs required to make management decisions in the CCP regarding visitor services.

Refuge brochures<sup>1</sup>, a draft vision statement, worksheets, and maps were provided to the review team members to provide orientation, stimulate discussion and collect ideas. The visitor services review agenda, the project leader's overview notes, and these handouts are attached to this report as Appendices A–E.

## **REVIEW TEAM MEMBERS**

Ralph Webber, Project Leader, Tualatin River National Wildlife Refuge  
Chris Lapp, Deputy Project Leader, Tualatin River National Wildlife Refuge  
Kim Strassburg, Visitor Services Manager, Tualatin River National Wildlife Refuge  
Pete Schmidt, Wildlife Biologist, Tualatin River National Wildlife Refuge  
Scott McCarthy, Branch Chief, Refuge Planning, Pacific Region  
Tom Miewald, Geographer, Pacific Region  
Mike Marxen, Branch Chief, Visitor Services and Communications, Pacific Region  
Matt Hasti, Visual Information Specialist, Pacific Region  
Dawn Grafe, Visitor Services Manager, Oregon Coast National Wildlife Refuge Complex  
Eric Anderson, Visitor Services Manager, Ridgefield National Wildlife Refuge Complex  
Kolleen Irvine, Zone Law Enforcement Officer, Pacific Region  
Maren Murphy, Refuge Planner (AmeriCorps), Pacific Region  
Lacey Wall, Refuge Planner (AmeriCorps), Pacific Region

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<sup>1</sup> Two refuge brochures, the general refuge brochure (June 2009) and the Watchable Wildlife brochure (September 2010) were provided to review team members. Due to their large electronic file size, copies of these brochures are not included in this report. The general Tualatin River National Wildlife Refuge brochure is available online at [www.fws.gov/tualatinriver/pdf/brochure.pdf](http://www.fws.gov/tualatinriver/pdf/brochure.pdf) and the Watchable Wildlife brochure is available online at [www.fws.gov/tualatinriver/wildlife.html](http://www.fws.gov/tualatinriver/wildlife.html).

Mark Nebeker, Wildlife Manager, Oregon Department of Fish and Wildlife  
Don Vandeborgh, District Wildlife Biologist, Oregon Department of Fish and Wildlife  
Curt Zonich, Natural Resource Scientist, Metro  
Berk Moss, Vice-President, Friends of Tualatin River National Wildlife Refuge  
Steve Moore, Principal, Bigfoot Consulting  
Susan Saul, Principal, Cusy Coyllur Communications

## REFUGE OVERVIEW

Located on the southwestern outskirts of Portland, Oregon, Tualatin River National Wildlife Refuge is one of a handful of “urban” refuges in the National Wildlife Refuge System. The refuge was established in 1992 at the urging of the City of Sherwood and local citizens who wanted to protect wildlife habitat and species diversity in the Tualatin River watershed. When land acquisition is complete, the refuge will total 7,370 acres. Currently, the refuge manages 2,154 acres.

The U.S. Fish and Wildlife Service (USFWS) has been acquiring and restoring lands and waters for the benefit of native fish and wildlife. Native habitats include rivers and streams, seasonal and permanent wetlands, riparian areas, grasslands and savanna areas, and forested uplands. The refuge is now home to nearly 200 species of birds, over 50 species of mammals, 25 species of reptiles and amphibians, and a wide variety of insects, fish and plants.

The refuge consists of five Sherwood management units: Riverboat, Tualatin River, Atfalat’i, Onion Flats, and Rock Creek. Wapato Lake, located near Gaston, Oregon, is the sixth refuge unit.

Some Sherwood Units have limitations and restrictions on management and visitor services.

- Morand—public use limitation: hunting
- Henricksen—public use restriction: access along parcel entry road
- Dennis—habitat and public use limitations: mitigation and compatibility
- Oleson—habitat limitations: habitat unit credits for Bonneville Power Administration

The refuge provides a variety of recreational and educational opportunities and facilities focused on fish and wildlife and their habitats. Visitor facilities include the Wildlife Center, environmental education shelter, trails, overlooks, observation deck, photography blind, environmental education study sites, and exhibit panels. Current visitation is approximately 90,000 people per year.

## REFUGE PURPOSES AND ESTABLISHMENT HISTORY

Tualatin River National Wildlife Refuge was established in 1992 under the guidelines of the USFWS’s *Urban Refuge Policy* (USFWS 1991). The overarching refuge establishment purpose cited in the *Land Protection Plan and Environmental Assessment* (USFWS 1992) is to “protect, enhance, and manage upland, wetland, and riparian habitats for a variety of migratory birds and resident fish and wildlife, as well as for the enjoyment of people.” The Wapato Lake Unit serves a similar refuge purpose and supports many of the same types of habitats found within the refuge’s Sherwood-area management units.

Land acquisition began in late 1992 with the donation of a 12-acre parcel by Tom Stibolt and Lisa Brenner, who were strong advocates for refuge establishment. This donation paved the way for the

refuge to become eligible for Land and Water Conservation Fund appropriations. Most tracts have been purchased under authority of the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-m) reflecting a purpose derived from the *Urban Refuge Policy* and the *Land Protection Plan and Environmental Assessment* establishing the refuge.

## **DESCRIPTION OF EXISTING VISITOR SERVICES PROGRAM**

The *Master Plan and Environmental Assessment* (USFWS 2003) for visitor services was completed prior to construction of the existing visitor services facilities at the refuge's Atfalat'i management unit. Issues addressed at that time included transportation corridors and visitor access, wildlife disturbance, floodplain and urban runoff issues, potential conflicts between consumptive and non-consumptive public uses, and integration with off-refuge programs such as proposed regional trail systems. The documents also evaluated the potential effects of various alternatives for major administrative and public use facilities and associated programs. The documents included biological evaluations for compliance with environmental laws and compatibility determinations for non-consumptive public uses and fishing. Although fishing was found compatible, the refuge has not been officially opened to this use.

During development of this plan, the refuge provided opportunities for public input and coordinated with other agencies, including the Oregon Department of Transportation and the Federal Highway Administration regarding transportation and public access to the various Sherwood units. The refuge also consulted with the Confederated Tribes of the Grand Ronde.

Tualatin Riverkeepers supported development of a boat launch facility on the refuge to provide public access to the Tualatin River. Various locations were evaluated in consultation with the Riverkeepers, National Marine Fisheries Service, Department of Environmental Quality, and other agencies. Issues identified included potential impacts to riparian vegetation along the Tualatin River that could support juvenile salmonids and alterations of seasonal refuge wetlands; as a result, it was determined that a boat launch facility was not feasible.

Other facilities considered but dismissed in the master plan process included a traffic signal on U.S. Highway 99W at the refuge entrance, a pedestrian bridge over U.S. Highway 99W, and a wayside on Roy Rogers Road overlooking the Dennis Unit (former refuge headquarters).

The Atfalat'i Unit was opened to the public in 2006 and now provides safe access from U.S. Highway 99W to a parking area, Wildlife Center and overlook, year-round and seasonal trails, river and ridge-top overlooks, wetland observation deck, photography blind, five environmental education study sites, an environmental education shelter, and numerous interpretive panels. An additional wayside was constructed off of Roy Rogers Road to provide wildlife viewing, access to seasonal trails, parking and restrooms. The Wildlife Center and the majority of the refuge's visitor facilities are accessible by public transit (city bus).

The Wildlife Center, which opened in 2008, includes an exhibit hall, environmental education field laboratory, information desk, Friends' nature store, indoor viewing area, restrooms, and a multi-purpose room. The focus of the Wildlife Center is to act as a springboard introducing the public to the refuge and the National Wildlife Refuge System, and to encourage visitors to go outside to experience first-hand the fish and wildlife of the refuge. Indoor exhibits focus on the broader

concepts of wildlife and their habitats, the interconnectedness of lands and waters, and the role of the Refuge System.

In cooperation with local educators, the refuge has developed a curriculum-based environmental education program that is blossoming into a metropolitan resource for teachers, students, youth group leaders, and families. The environmental education shelter, which opened in 2010, is designed to provide cover and education space for students visiting the refuge as part of the educational field trip program. The shelter provides protection from inclement weather and seating for up to 65 students to eat lunch or conduct activities. The shelter is located at the refuge's main trailhead and also provides public restrooms.

Partnership with the Friends of the Refuge has been key to a successful visitor services program. More than 160 volunteers assist with welcoming and orienting visitors, accompanying school groups, delivering interpretive programs, roving refuge trails, and staffing the Wildlife Center's information desk and nature store. They gave 11,600 hours in Fiscal Year 2010. The Friends share their own love of the refuge with visitors. In addition, the Friends have obtained grants that fund limited-term AmeriCorps volunteers, interns, and visitor services staff. Since the refuge has only one permanent visitor services FTE, the programs now offered would not be possible without this large volunteer program.

In 2007, the refuge completed an environmental assessment and land conservation plan for the proposed Wapato Lake Unit which included consideration of a public use program (USFWS 2007a). The plan addresses potential public uses that could include hunting, fishing, wildlife observation and photography, environmental education, and interpretation. In addition, the plan highlighted the rich cultural heritage of Wapato Lake and proposed to integrate cultural history into education and interpretive programs.

Also in 2007, the refuge completed a planning process proposing to implement an entrance fee program (USFWS 2007b). The proposal included a market study comparing fees of other similar facilities; an estimation of potential future visitation; anticipated income from collected fees; a description of how funds would support visitor facilities and programs; an estimate of fee program start-up and operational costs; and summary of responses received during the public comment period. Based on initial analysis and general public support of a potential fee program, a notice of intent to implement a fee program was published in the *Federal Register* in February 2009. Authority to collect fees was granted to the refuge in August 2009, but a fee program has not been implemented.

Demand for additional interpretive and educational programs has soared since the refuge's opening in 2006. Current visitation is approximately 90,000 people a year, of which 4,000 participate in formal curriculum-based education programs. Projections indicate that the Wildlife Center and visitor facilities could serve 200,000 visitors annually.

## **VISITOR SERVICES DECISIONS ANTICIPATED TO BE MADE IN THE COMPREHENSIVE CONSERVATION PLAN**

At the outset of the review, Ralph Webber identified programs and visitor services facilities to be considered in the CCP based on internal scoping. They include fishing at the Atfalat'i and Wapato Lake Units, hunting at the Wapato Lake Unit, and boat launch facilities at the Wapato Lake Unit.

Conceptual decisions may be made regarding other visitor services programs and facilities at the Wapato Lake Unit. These decisions will be driven by the quality and specificity of wildlife and habitat information available and the associated management and staffing decisions made in the CCP.

## **VISITOR SERVICES BIG SIX PROGRAM-RELATED DISCUSSIONS**

Tualatin River National Wildlife Refuge currently offers visitor activities in four of the “Big Six” visitor service program areas. The review team discussed ideas for potentially adding hunting and fishing opportunities at the Wapato Lake Unit and fishing opportunities at the Atfalat’i Unit. See more complete discussions below under Site-Specific and Unit-Specific Discussions.

## **CRITERIA FOR COMPREHENSIVE CONSERVATION PLAN DECISION-MAKING**

Several team members mentioned the need for decision-making criteria, but no one suggested what those criteria might be. It is clear that decisions regarding visitor services at the Wapato Lake Unit will need to await more information and decisions regarding wildlife and habitat management; needs include the water budget and geomorphology mapping. Some CCP-related decisions for the Wapato Lake Unit may, therefore, be more conceptual than those for the Sherwood management units.

## **SITE-SPECIFIC AND UNIT-SPECIFIC DISCUSSIONS**

### **Wapato Lake Unit Issues, Opportunities, and Management Concerns**

The review included an extensive field tour of the Wapato Lake Unit. Stop #1 was at the southwest corner of the refuge along Flett Road. Stop #2 was at Brown Park in Gaston. Stop #3 was at Seghers Road intersection with Oregon Highway 47. Stop #4 was at the bridge over the Tualatin River. Stop #5 was at the pump station. Photographs from the field tour are included in Appendix F.

#### ***Issues***

- Wapato Lake historically supported large populations of wintering tundra swans. The Service has survey data back to the 1950s. Wintering waterfowl disturbance would be a factor to be considered in any visitor services programs or facilities planning.
- Roosevelt elk are present in the Coast Range, less than a mile away near the Stimson Mill. Oregon Department of Fish and Wildlife (ODFW) has designated the Willamette Valley, including the Wapato Lake area, as an “elk de-emphasis area.” ODFW is concerned that the elk will cross Highway 47 into the refuge, where they will use newly restored refuge habitats for protection (cover) during the day and depredate on neighboring agricultural lands at night. The challenge is how to use habitat and public use management to limit elk numbers on the refuge.
- Low dissolved oxygen concentrations in the Tualatin River and nuisance levels of algae could impact public use involving water contact, such as boating, fishing, and environmental education.
- Restrooms and other visitor service facilities create maintenance needs. The question arose that if the refuge puts in a boat launch, what responsibilities and liabilities would it be

## **Opportunities**

- Populations surrounding the Wapato Lake Unit include 100,000 people in the Hillsboro-Forest Grove area to the north and 50,000 people in the McMinnville-Newberg area to the south so there is a large potential audience for visitor services.
- Metro owns land near the confluence of Gales Creek and the Tualatin River and on Chehalem Ridge. The U.S. Natural Resources Conservation Service has a significant easement on lands in the northwestern corner of the approved acquisition boundary for the unit. Metro and the refuge share goals of providing connectivity for people and wildlife and protecting a contiguous floodplain. The refuge and Metro occasionally share volunteers and programs.
- Environmental education opportunities exist with schools in Gaston, Forest Grove, Cornelius, Hillsboro, Newberg, and McMinnville. Gaston schools could adopt the Wapato Lake Unit (Ding Darling National Wildlife Refuge provides an example of this practice). Pacific University in Forest Grove has a strong teacher education program that could be extended to Wapato Lake. Other local colleges such as Linfield, George Fox and Portland Community College could be included, if appropriate. There may be opportunities to partner with Jackson Bottoms and Fernhill Wetlands and handle the overflow environmental education demand from Jackson Bottoms.
- There is potential for an interpretive overlook at the Seghers Road intersection along Highway 47 and other locations adjacent to refuge lands.
- A lightly used railroad and decommissioned railroad right-of-way indicate the need for research into regional plans for any sort of rails-to-trails or rail-trail developments along the west side of Wapato Lake. Oregon State Parks might have information on rails-to-trails plans. Metro or the Oregon Department of Transportation might have plans for a future light rail line between Hillsboro and McMinnville.
- The Tualatin River provides a boating opportunity for small craft, such as canoes and kayaks. Tualatin Riverkeepers is planning a river trail for the Tualatin River but the extent of the trail has not been determined. The group is looking at purchasing private land within the approved refuge boundary (Sherwood Units) for a small craft launch facility.
- A restored Wapato Lake could provide waterfowl hunting opportunities. A quality waterfowl hunting program could have assigned blinds, a staggered hunt day schedule, and an imposed shell capacity possession limit. A waterfowl hunt could be very popular due to limited public hunting opportunities in the Portland metro area.
- Upland bird hunting (e.g., for pheasant) with emphasis on youth hunts could be sustainable and would be popular due to limited opportunities in the Portland metro area.
- There may be potential elk viewing opportunities. Because Wapato Lake lies in an elk de-emphasis area, ODFW encourages elk hunting with liberal seasons and depredation hunts. Due to the narrowness of the refuge and adjacent traffic and residential and commercial development, any deer and elk hunts should be limited to archery, shotgun or muzzle loader weapons. A youth hunt may be a program to consider.

- Because of the associated facility development, the staff time required for proper management, and the distance from refuge headquarters, user fees for specific activities, such as hunting or boating, might be needed to support quality programs.
- Fishing would be mainly for warmwater species (spiny rays) although salmon and steelhead are pioneering up the Tualatin River. The refuge could provide a quality small-mouthed bass fishery in the Tualatin River. There are trout in Wapato Creek, although a local resident says they taste “muddy.”
- The refuge potentially could partner with the U.S. Bureau of Reclamation and Washington County’s Henry Hagg Lake at Scoggins Valley Park to accommodate overflow use, provide outdoor recreation opportunities, such as fishing clinics and youth fishing days, which might not be compatible at the Wapato Lake Unit, and reach the same target audiences.
- Special refuge events connected to local community events such as the Gaston Bluegrass Festival or Antique Car Show could be used to introduce people to the refuge.
- Wapato Lake and the surrounding area are believed to be rich in cultural resources and have a history of traditional use of native plants, especially wapato in the lakebed and camas in the prairies to the north. Classes on this topic are extremely well-attended at the Atfalat’i Unit. Teaching traditional uses of plants to tribal youth and others could be blended into interpretation and education programs. The refuge would need to determine what is known regarding the area’s cultural resources for appropriate interpretation and siting of visitor services facilities. Potential partnerships with the Confederated Tribes of the Grand Ronde could recognize the historic and cultural significance of Wapato Lake to native people.
- Interpretive messages should focus on the Pacific Flyway connection, tundra swans, and human and wildlife connections to the land at Wapato Lake.
- Public access to the refuge through Brown Park should be considered, since it already has parking, restrooms, and other infrastructure.
- An auto tour route could ring the refuge using existing highways and roads. The refuge needs to investigate whether there are any county or state plans for scenic byways or future bicycle routes or walking paths along existing roads. Scenic byway designation could provide a means to partial funding of visitor services facilities. Wildlife photography opportunities, potentially including blinds, could be incorporated into a tour route. Opportunities might exist to use waterfowl hunting blinds on non-hunting days if a waterfowl hunt program is adopted.
- A nature play area near Brown Park could be developed for younger children.
- A riparian forest trail might be developed north of the lakebed along the Tualatin River.
- Joint use of blinds for waterfowl hunting and wildlife photography could be considered.
- Demonstration habitats could be developed.

### **Concerns**

- Because of the staff time required for proper management and the distance from refuge headquarters, a Volunteer Coordinator and an Environmental Education Coordinator are essential staff for any visitor services program at Wapato Lake. The staff must be in place prior to initiating any visitor services programs. They should be permanent staff because funding for soft-money term-limited programs such as AmeriCorps are not reliable. Staffing is necessary to offer quality opportunities such as waterfowl hunting. Quality programs attract volunteers.
- Public use will be driven by management choices made in the CCP regarding what kind of water management will occur at Wapato Lake in the future. If the dikes stay, they could

become a lengthy, elevated wildlife observation trail. If the dikes are breached, but not removed, perhaps the gaps could be bridged to provide a trail.

- Developing a deer and elk hunt program that results in a minimal number of elk taken will be difficult to keep effective year after year when the opportunity to kill an elk is limited.
- Potential timing conflicts might exist between providing upland bird hunting and waterfowl hunting.
- A river trail for fishing and boating would require maintenance and accessibility. Due to flooding and natural tree fall, the waterway becomes choked with trees and brush so it is tough to fish from the bank or water, or paddle in this reach.
- Environmental education use is restricted due to lack of funding for bus transportation. School groups could get to the Atfalat'i Unit via Tri-Met buses but transportation options are likely to be more limited at the Wapato Lake Unit.
- User fees might need to be implemented for specific uses, such as hunting, to support quality programs since no internal funding increases for National Wildlife Refuge System recreation are anticipated in the foreseeable future.

## **Sherwood Units Issues, Opportunities, Management Concerns**

The review team toured the current visitor services facilities on the Atfalat'i Unit. Stop #1 was at the Wetland Observation Deck. Stop #2 was the River Overlook. The team also looked at each of the five environmental education study sites along the riparian trail. Stop #3 was the environmental education shelter. Photographs from the field tour are included in Appendix F.

### ***Issues***

- All facilities are designed to be on the perimeter of the unit to minimize wildlife disturbance. Interior trails are seasonally closed to protect wintering waterfowl.
- Visitors come with urban expectations. A commonly asked question at the observation deck is “where is the bathroom?” Visitors need to learn that the refuge is not the same as a city or county park.
- Expanding beaver populations are impacting the refuge's ability to manage water and restore habitat. This is a larger community issue as well: beaver are damaging private lands and other green spaces. The refuge would need to consider the Service's policy on trapping, consult with ODFW, and satisfy appropriate compliance requirements prior to implementing and developing a formal management program.
- Existing refuge infrastructure, especially acquired houses and outbuildings that do not directly support refuge operations, should be evaluated as to whether they are being used for their highest and best use and whether they should instead serve refuge visitors.

### ***Opportunities***

- The refuge has a robust volunteer program on this unit, both in visitor services and science. Volunteers trained in biology can go off-trail when conducting certain surveys. Volunteers can be taught to expand the stewardship they learn on the refuge into their communities; they can become citizen scientists.
- The CCP will consider fishing at the River Overlook. Fishing already has been determined to be compatible in earlier planning documents, but those documents did not consider cumulative impacts beyond this particular location, and a formal opening package was never developed or processed. There does not appear to be a strong public demand for fishing on the refuge. However, the River Overlook provides an accessible opportunity that is safe, easy

to access, and controlled. A fishing program focused on children and families, and accessible to visitors with mobility limitations, could be successful.

- The Friends sponsor a photography club (the Tualatin River Photographic Society), which offers classes, contests, and projects. Interest has grown quickly, and the photography blind is now reserved several times a week when waterfowl are present. The CCP could consider ways to provide a mobility option (auto-based as opposed to a fixed blind) for wildlife photography.
- A “nature play area” that will be safe and accessible could be constructed to engage young children in unstructured outdoor play. The play area could be designed in a way that encourages children and their parents to be comfortable in nature and that builds age-appropriate nature awareness skills. Play elements may include climbing logs, a water feature, natural building materials, places to hide, investigative tools such as magnifiers and listening aids, places to rest, and places to dig.

### **Concerns**

- The environmental education program needs to evolve beyond the single-day teacher workshop into long-term one-on-one coaching with individual teachers to increase their comfort level with educating in the outdoors. Grant funding is needed for these more intensive teacher training opportunities and to offer additional educational programs that are tailored to youth outside the traditional classroom.
- There is some perception that visitors are crowded together on the Atfalat’i Unit. The refuge should consider further assessment of ways to spread visitors out while still maintaining wildlife sanctuaries.
- Visitor experiences at the Wapato Lake Unit and Atfalat’i Unit should be different from each other. Significant developed visitor facilities are available at the Atfalat’i Unit and Jackson Bottoms. The Wapato Lake experience should be more rustic, rural, and remote.
- Funding allocations may not be adequate to sustain a high quality visitor services program without a supplemental revenue stream such as that provided by an entrance fee program.
- An entrance fee program may not pencil out financially. A full-time or part-time staffed fee booth likely would not be self-supporting so the only viable fee collection option may be the honor system. Ridgefield National Wildlife Refuge reports 30% to 40% compliance with the honor system; TRNWR should seek more substantive data regionally and nationally.
- The minimal income generated by an entrance fee may not be worth the effect on the refuge’s image in the community and the loss of target audiences who will not visit the refuge if there is an entrance fee. An entrance fee can be more effective, however, with higher visitation. Hunters like to see other users pay to support visitor services programs and facilities.
- Wildlife disturbance monitoring data are anecdotal. The refuge needs quantitative data to inform visitor services decisions. Studies from other parts of the country may be of limited use at Tualatin River where habitat and urban changes, off-refuge factors, and habituated birds provide many variables. If these limitations are referenced, however, a literature review may be scientifically accepted.

### **VISION STATEMENT**

Tualatin River National Wildlife Refuge is a natural treasure where an abundance of native wildlife thrives in a mosaic of wetland, prairie, forest and stream habitats characteristic of the Willamette Valley that the Atfalat’i people knew. The refuge is a sanctuary for wildlife and people, a place

where the ebb and flow of the river mark the natural rhythms of the refuge through the seasons. It's a special place, an icon where the stories of the refuge reflect the importance of the National Wildlife Refuge System. The refuge has a rich history of community vision where friends and neighbors helped create, and continue to care for, this urban refuge and the watershed that supports it. It's a model that combines excellence in landscape conservation, learning, and partnerships to strive for a healthy natural world. Tualatin River National Wildlife Refuge is a place where rich traditions, outdoor learning experiences, and discovery foster a love of and caring for nature that endure for generations to come.

## RECOMMENDATIONS FOR FURTHER STUDY AND EVALUATION

- Additional information and analysis maps are needed to show the land base that is available for visitor services programs and facilities. Areas off the table for biological, hydrological/physical, management, cultural, and legal reasons need to be identified on a map. Areas that may provide special opportunities for visitor uses and facilities should also be mapped (e.g., future trails, river access, and natural overlooks). It is important for the CCP to consider what can practically be accomplished in the 15-year planning horizon.
- Important areas for key wildlife species at Wapato Lake need to be delineated so visitor facilities can be sited accordingly. Visitor opportunities across the diversity of habitat types should be evaluated to ensure visitors are made aware of all the major habitats. Some visitor uses can be seasonally restricted, as already occurs on the Atfalat'i Unit.
- Local, regional, and state multi-modal transportation plans for the Wapato Lake area need to be identified and reviewed. These plans include terrestrial and aquatic trail systems and public access points and scenic byways designations. Metro's plans for Chehalem Ridge and the Lovejoy property need to be determined.
- The currently used railroad and decommissioned railroad right-of-way along the west side of the Wapato Lake Unit need to be researched for any regional plans for rails-to-trails, rail trail, or future light rail lines between Hillsboro and McMinnville. Metro, Oregon State Parks, and the Oregon Department of Transportation are likely sources of information.
- Literature searches and interviews with the Confederated Tribes of the Grand Ronde regarding Wapato Lake's cultural resources are necessary for appropriate interpretation and siting of visitor services facilities.
- The refuge needs to check with Oregon Department of State Lands for state navigability classification of the Tualatin River. The refuge needs to investigate the Tualatin Riverkeepers' Tualatin River Trail intentions in the Wapato Lake segment and to check with Metro for any plans for river access on its property south of Forest Grove (Lovejoy tract).
- The refuge needs to investigate whether there are any county or state plans for scenic byways or future bicycle routes or walking paths along existing roads.
- Wildlife disturbance monitoring data are anecdotal. The refuge needs quantitative data to inform visitor services decisions.
- The refuge needs to research entrance fee programs at other refuges regionally and nationally.

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- . 2007b. *Proposed Recreational Fee Plan*. Sherwood, Oregon: Tualatin River National Wildlife Refuge.

## **APPENDIX A**

### **Visitor Services Review Agenda**

AGENDA

Tualatin River National Wildlife Refuge

Public Use Review

October 14<sup>th</sup>, 2010, 8:00 a.m. – 5:00 p.m.

Contact: Kim Strassburg, Visitor Services Manger, (cell) 503-539-5194

*Please note:*

*The refuge will provide transportation.*

*Friends of the Refuge will provide lunch and beverages.*

*Dress for spending time in the field (boots and layers).*

*Bring your binoculars, water and snacks.*

8:00	Meet at Wildlife Center, 19255 SW Pacific Hwy, Sherwood
8:00-8:45	Introductions and overview of agenda; Overview of refuge planning efforts and programs to date
8:45-9:30	Travel to Wapato Lake Unit
9:30-11:00	Field tour of Wapato Lake
11:00-11:30	Lunch at Gaston Park (access to bathrooms, coffee stand, mini-mart)
11:30-2:00	Discussions on public use opportunities, issues, and concerns for Wapato Lake Unit
2:00-3:00	Return to Wildlife Center via Atfalat'i Unit
3:00-4:30	Discussions on public use opportunities, issues, and concerns for Sherwood Units
4:30-5:00	Wrap-up

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Discussion topics to consider

- Refuge's role in region—how far is our reach and what messages do we share?
- Regional trail access
- Hunting (including elk management)
- Fishing
- River access
- Interpretation
- Environmental education
- Community stewardship opportunities
- Trails and overlooks
- Wildlife photography
- Cultural resource educational programs
- Nature play area
- Urbanization and potential future demand vs. high quality compatible experiences.
- Wildlife disturbance monitoring (pertaining to public use and outside disturbances)
- Fee program

## **APPENDIX B**

### **Worksheets**

<b>Wapato Lake Unit</b>
Refuge's role in region—how far is our reach and what messages do we share?
Regional trail access
Hunting (including elk management)
Fishing
River access
New interpretation opportunities
New environmental education infrastructure and program opportunities
Community stewardship opportunities

New trails and overlooks opportunities
New wildlife photography opportunities
New cultural resource educational program opportunities
Nature play area
Urbanization and potential future demand vs. high quality compatible experiences
Wildlife disturbance monitoring (pertaining to public use and outside disturbances)
Fee program

<b>Sherwood Units</b>
Refuge's role in region—how far is our reach and what messages do we share?
Regional trail access
Hunting
Fishing
River access
Existing interpretation and programs
Existing environmental education infrastructure and programs
Community stewardship opportunities

Existing trails and observation/overlooks
Existing photography and programs
Cultural resource educational programs
Nature play area
Urbanization and potential future demand vs. high quality compatible experiences
Wildlife disturbance monitoring (pertaining to public use and outside disturbances)
Fee program

## **APPENDIX C**

### **Visitor Services Historical Overview and Background**

## Tualatin River National Wildlife Refuge Visitor Services Historical Overview and Background

### I. Conceptual Planning and Environmental Assessment in Partnership w/the City of Sherwood

- Funding Partnership – 2001 to 2003
- Contract Work w/Otak
- Master Plan Product – Program Facilities Supporting Priority Public Use Programs
- Environmental Assessment
- Other Work Products
  - Biological Evaluations for Compliance w/Section 7 Consultation
  - Compatibility Determinations for Non-Consumptive Priority Public Uses and Fishing
  - Transportation Study
- Agency Coordination

ODOT/WFH	TVFR	NMFS
Washington County	City of Sherwood	Corps of Engineer/DSL
DEQ	Metro	Tualatin Riverkeepers
Confederated Tribes of the Grand Ronde		

### II. Environmental Assessment for Wildlife Center and Visitor Services Facilities

- Site Alternatives Access for HQ and VS Facilities Development
  - Steinborn Parcel 99W Access
  - Steinborn Parcel Roy Rogers Access (Wayside VS Facilities)
  - Dennis Parcel Roy Rogers Access
  - Cerenghino Parcel Tualatin Sherwood Access
- Agency and Public Scoping Issues and Comments
  - Steinborn Parcel 99W Access Preferred Site
  - Impervious Runoff Concerns w/Roads, Parking Lots, and Trails
  - Visitor Use Disturbances to Wildlife
  - Non-consumptive Visitor Uses and Safety Conflicts w/Hunting
  - Access Integration and Coordination of Programs w/Local Parks
  - Boat Launch Facility Issues
    - Chicken Creek Juvenile Salmonids
    - Riparian Vegetation and Wetlands

- Facilities Considered, but Dismissed
  - Highway 99W Traffic Signal
  - Highway Pedestrian Bridge
  - Roy Rogers Wayside Overlooking Dennis Parcel
  - Boat Launch Facilities (River Overlook as Fishing Program Option)
- Programs/Facilities to be Considered for CCP (Additions – Wapato)
  - Fishing Program
  - Boat Launch Facilities
  - Hunting Program

### III. Land Parcel Limitations and Restrictions

- Morand – Public Use Limitation: Hunting
- Henricksen – Public Use Restriction: Access Along Parcel Entry Road
- Dennis – Habitat and PU Limitations: Mitigation and Compatibility
- Oleson – Habitat Limitations: Habitat Unit Credits for BPA

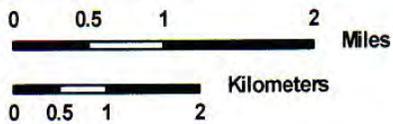
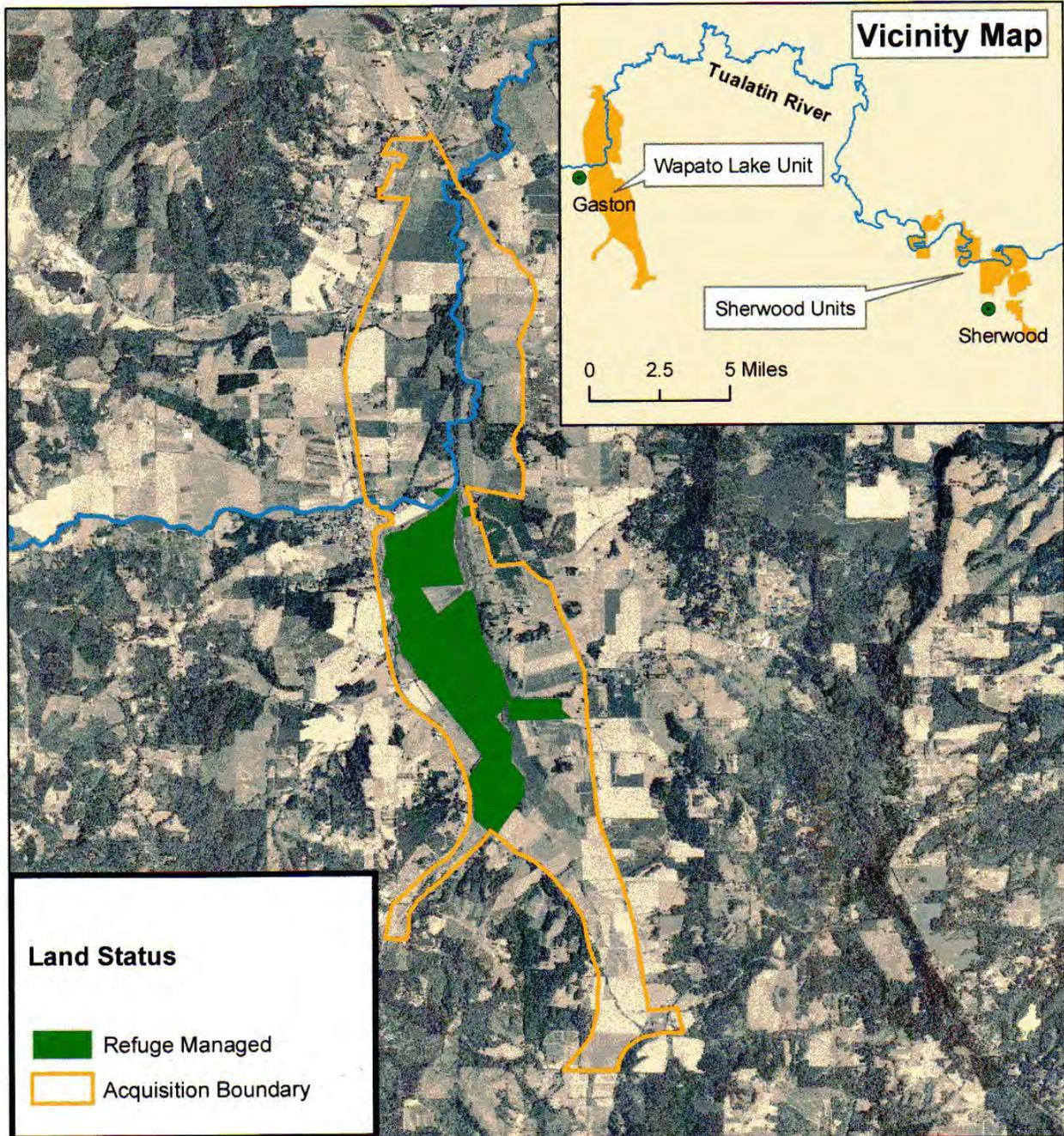
## **APPENDIX D**

### **Maps**



U.S. Fish & Wildlife Service

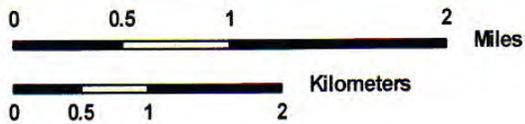
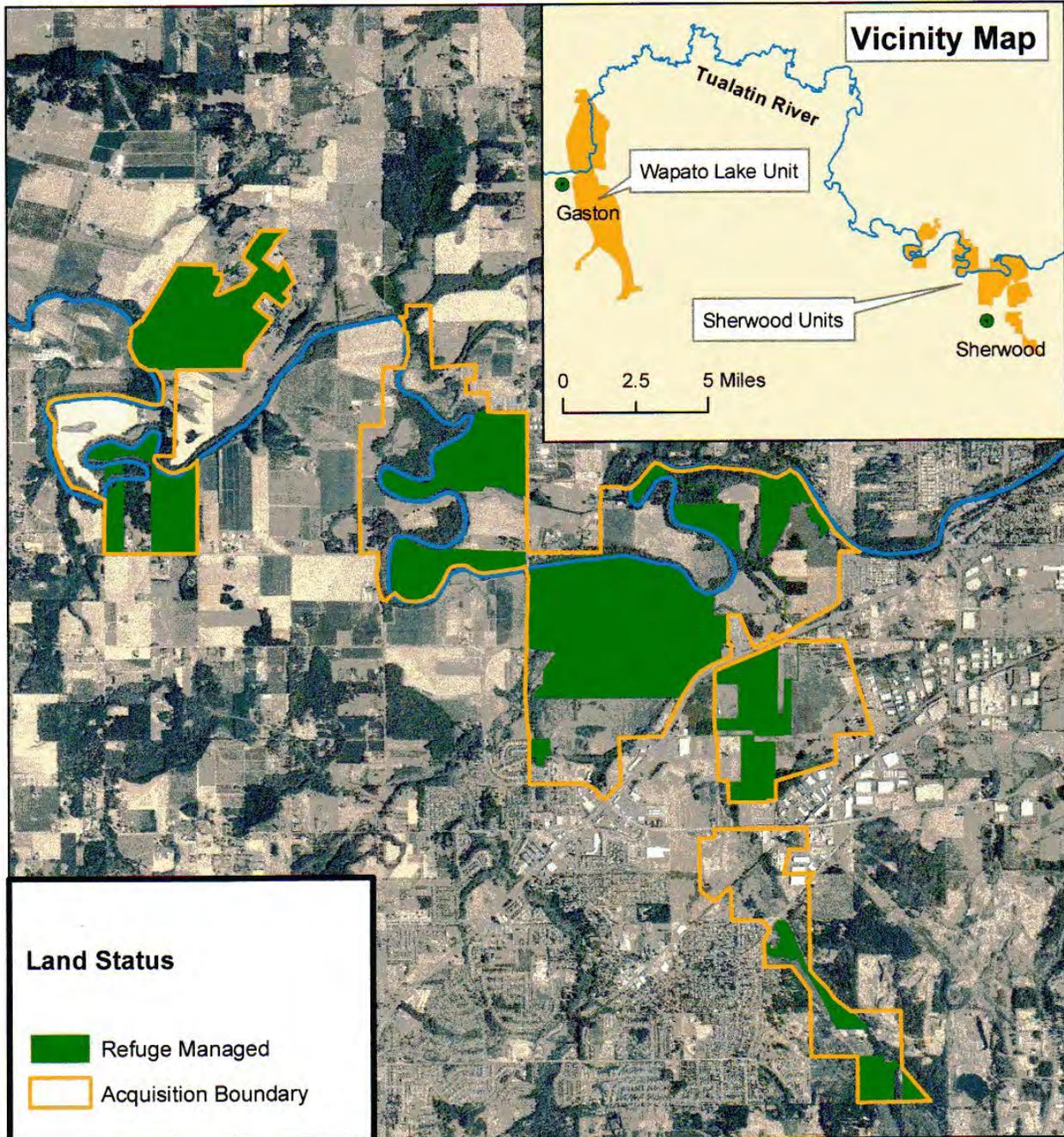
### Tualatin River National Wildlife Refuge, Wapato Lake Unit





U.S. Fish & Wildlife Service

### Tualatin River National Wildlife Refuge, Sherwood Units

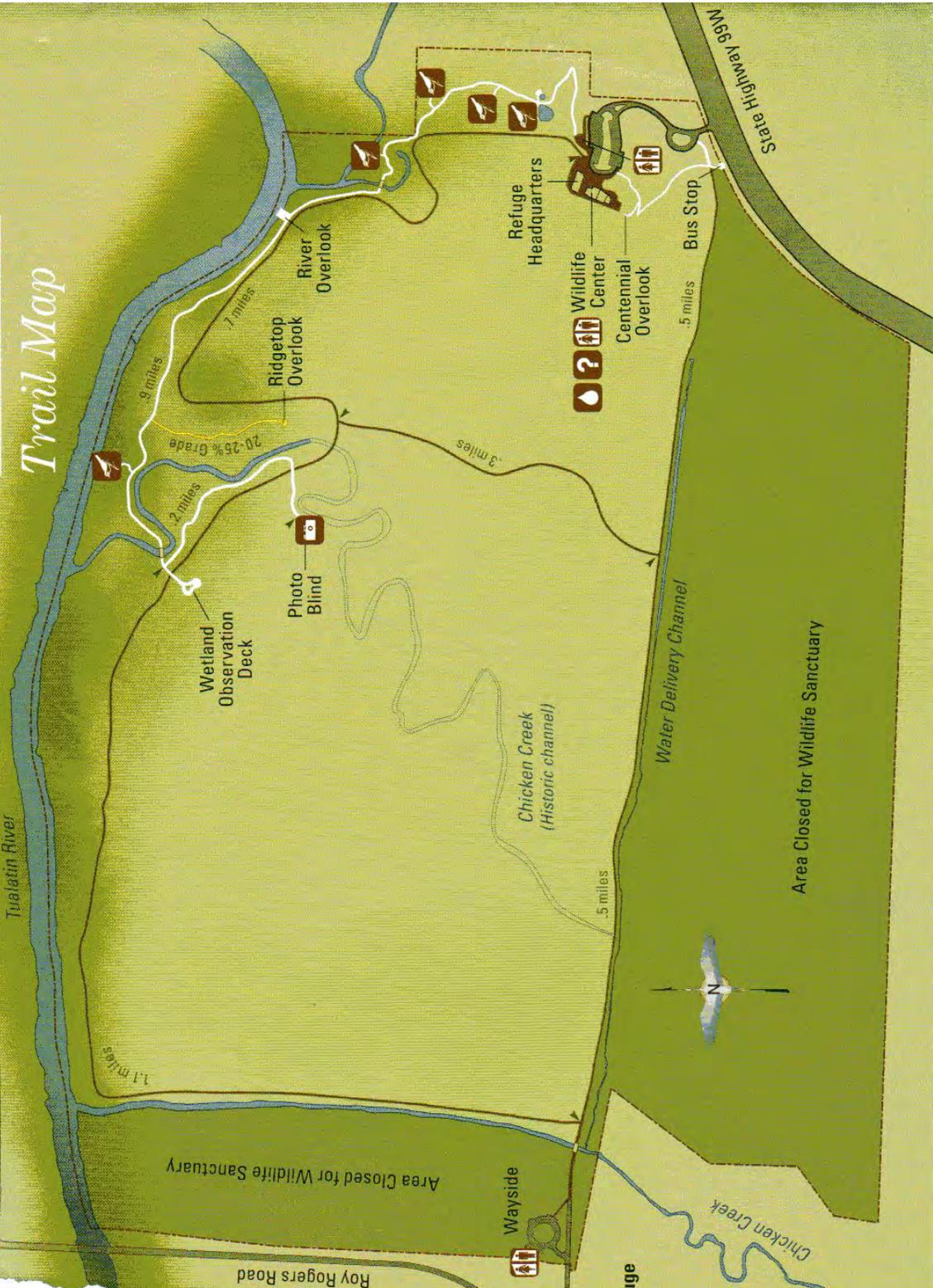


U.S. Fish & Wildlife Service

# Tualatin River National Wildlife Refuge Trail Map

	<b>Year-Round Trail</b> 5% grade or less		<b>Refuge Unit Boundary</b>		<b>Study Site</b>
	<b>Ridgetop Spur</b> 20-25% grade		<b>Wildlife Sanctuary</b> Area permanently closed		<b>Visitor Info</b>
	<b>Seasonal Trails</b> Closed to protect wildlife Oct 1-Apr 30 Service Road - uneven loose gravel surface		<b>Photo Blind</b> By reservation only		<b>Restroom and Trash Cans</b>
					<b>Drinking Water</b>

**Wildlife Comes First**  
 Think of yourself as a visitor, guest in someone else's home. or this reason—  
 Please stay on the trails—no off trail use.  
 Walking only. No bikes, jogging, or running—it disturbs wildlife.  
 Pets are not allowed.  
 Please use trash cans—no littering.  
 No fires, firearms, fireworks, fishing, or hunting.  
 Please leave plants and animals where they are—no collecting.  
 The Refuge is open from dawn to dusk—no camping or overnight parking.  
 Visitor facilities, including year-round trail and overlooks, are designed to be accessible to all visitors.  
 Call for more information.



**Tualatin River National Wildlife Refuge**  
 19255 SW Pacific Hwy  
 Sherwood, Oregon 97140  
 Headquarters: 503/625 5944  
 Wildlife Center: 503/625 5945  
<http://www.fws.gov/tualatinriver/>

November 2008



## **APPENDIX E**

### **Vision Statement**

## **Vision Statement: an image of the future**

Tualatin River National Wildlife Refuge is a natural treasure where an abundance of native wildlife thrive in a mosaic of wetland, prairie, forest and stream habitats characteristic of the Willamette Valley that the Atfalat'i people knew. It's a special place, an icon where the stories of the refuge reflect the importance of the National Wildlife Refuge System. The refuge has a rich history of community vision where friends and neighbors helped create, and continue to care for, this urban refuge and the watershed that supports it. It's a model that combines excellence in landscape conservation, learning, and partnerships to strive for a healthy natural world.

The refuge is a sanctuary for both wildlife and people, a place where the ebb and flow of the river marks the natural rhythms of the refuge through the seasons.

*Spring is a time where the melody of songbirds echoes through the canopy of the riparian forest and prairies are washed in the vibrant colors of wildflowers in bloom. Nature is alive with the sights and sounds of animals as they fulfill their ancient ritual of courting and raising their young. Wetlands give way to mudflats as migrating shorebirds probe the mud for the insects and worms that will nourish them on their northward journey. The curiosity of school children is nurtured as they discover nature surprises like a bird's nest, a vole tunnel, a duckling, a soaring hawk or the slither of a snake.*

*The heat of summer dominates as wetlands dry and native plants begin to grow, setting the dinner table for the waterfowl that will arrive in fall. Turtles bask on logs, songbirds are fledging their young, the chorus of frogs resonates at sundown, and bats dart through the night sky eating insects on the fly. Volunteers and refuge staff are busy with the chores of caring for the refuge, while families explore the sunny expanse of tall meadow grasses and seek shelter in the cool shade of the green forest.*

*As fall approaches, the colors of the forest change to golden hues and the air fills with the sound of migrating geese and swans. Seasonal rains begin as the arriving waterfowl seek shelter and food in the wetlands that are beginning to flood. Deer and squirrels prepare for winter as they search for acorns under majestic oaks. Teachers gather at the refuge to learn how to share the sense of wonder that nature has to offer to their students.*

*Winter brings the awe of thousands of waterfowl, swirling overhead as they seek sanctuary. Rains pour down as ducks, geese and swans forage in the wetlands, abundant with the seeds and roots that will nourish them through the cold season. People gather and marvel as bald eagles perch high atop leafless trees and patrol wetlands searching for a waterfowl meal. Fish migrate through rising rivers and streams, and seek shelter in the quieter waters of backwater sloughs. Late in the winter, the open water of the wetlands reflects the misty sunsets as waterfowl depart to their arctic breeding grounds.*

*Winter rains wane as the cycle begins anew in a place where rich traditions, outdoor learning experiences, and discovery foster a love of and caring for nature that endures for generations to come.*

## **APPENDIX F**

### **Photographs**



Chris Lapp explained the Wapato Lake water system at the Pump House stop.



Visitor services review team members got some unexpected field experience when the van became stuck in the mud.



Visitor services review team members visited the River Overlook on the Atfalat'i Unit