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Appendix A. Appropriate Use Findings

Introduction

The Appropriate Refuge Uses Policy ([603 FW 1](#)), finalized in 2006, outlines the process that the U.S. Fish and Wildlife Service (USFWS; Service) uses to determine when general public uses on refuges may be considered. Public uses, previously defined as wildlife-dependent uses under the National Wildlife Refuge System Improvement Act of 1997 (hunting, fishing, wildlife observation and photography, environmental education and interpretation), are generally exempt from appropriate use review. Other exempt uses include situations where the Service does not have adequate jurisdiction to control the activity and refuge management activities. Other existing, proposed, or requested public uses are required to undergo the appropriateness screening.

The policy provides refuge managers with a consistent procedure to screen and document decisions concerning public uses, with the use of the following questions:

- a) Do we have jurisdiction over the use?
- b) Does the use comply with applicable laws and regulations (federal, state, tribal, and local)?
- c) Is the use consistent with applicable executive orders and department and Service policies?
- d) Is the use consistent with public safety?
- e) Is the use consistent with goals and objectives in an approved management plan or other document?
- f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?
- g) Is the use manageable within available budget and staff?
- h) Will this be manageable in the future within existing resources?
- i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?
- j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality, compatible, wildlife-dependent recreation into the future?

Uses marked "no" for questions (a) or (b) are not evaluated further. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. When a use is determined to be appropriate, a refuge manager must then decide if the use is compatible before allowing it on a refuge.

The following forms show which uses have been determined appropriate and which determined not appropriate. Narrative answers for negative findings follow the forms.

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Appropriate Uses Findings

Appropriate Use Justification, Attachment 1

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Bicycling/Jogging

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		✓
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		✓
(g) Is the use manageable within available budget and staff?		✓
(h) Will this be manageable in the future within existing resources?		✓
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		✓
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ___ No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate ___

Refuge Manager: _____ Date: _____

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge (the refuge)

Use: Bicycling/jogging on the refuge

Summary: Jogging and bicycling are currently not allowed on the refuge. However, the refuge gets occasional requests to allow these uses, including opportunities to connect the refuge with regional trail systems. These uses have been determined to be not appropriate at the current time.

Further explanation of the answers from US. Fish and Wildlife Service (USFWS) Form 3-2319 is provided below:

(e) These uses are not consistent with the goals and objectives of the comprehensive conservation plan (CCP) due to the potential for joggers and bicyclists to disturb wildlife or interfere with other priority wildlife-dependent public uses.

(f) While the 2003 refuge environmental assessment (EA) (USFWS 2003a) for the Wildlife Center and visitor services facilities addressed several activities and limited trail use to foot traffic only, it did not specifically address jogging or bicycling.

(g) and (h) Due to the urban nature of the refuge, the potential demand for these uses would be very high. The amount of oversight needed to adequately carry out this activity would require additional resources that are not available with current resources.

(i) The uses present no benefits to the refuge's natural or cultural resources and are not thought to contribute to the public's understanding or appreciation of those resources.

(j) Currently, these uses cannot be accommodated without impairing existing wildlife-dependent recreational uses. Animals show greater flight response to humans moving unpredictably than to humans following a distinct path. Also, rapid movements by joggers and cyclists are more disturbing to wildlife than slower moving hikers. Burger (1981) examined the effects of human activity on roosting and migrating birds at a coastal bay refuge along the Atlantic coast. Human activities that involved rapid movements or close proximity to roosting birds, such as jogging, even on pathways, caused the birds to flush; in comparison, slow-walking bird watchers and people walking on paths around ponds did not usually cause birds to flush.

However, as stated under Objective 10.4 of this CCP/EA (Chapter 2), we would explore opportunities with partners to connect with regional trails while ensuring the uses minimize disturbance. At that time, we would re-evaluate the appropriateness of the uses.

References

Burger, J. 1981. The effects of human activity on birds at a coastal bay. *Biological Conservation* 21:231-241.

USFWS (U.S. Fish and Wildlife Service). 2003a. Tualatin River National Wildlife Refuge environmental assessment, Wildlife Center and visitor services facilities, Washington County, Oregon. U.S. Fish and Wildlife Service, Portland, OR. 318 pp.

Appropriate Uses Justification, Attachment 2

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Boat Access

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		✓
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		✓
(g) Is the use manageable within available budget and staff?		✓
(h) Will this be manageable in the future within existing resources?		✓
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Boat access

Summary: Access to or from the refuge by boat is currently not allowed. However, the refuge receives occasional requests to allow this use, including opportunities to connect the refuge with future planned water trail systems. This use has been determined to be not appropriate at the current time.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(d) No safe facilities currently exist for providing boat access to and/or from the refuge. River banks are steep and slippery and create a significant safety risk, especially when rainy or when river levels are running high.

(f) An assessment for provision of a boat launch facility off of Roy Rogers Road was conducted in the refuge environmental assessment for the Wildlife Center and visitor services facilities (USFWS 2003a). This use was examined but eliminated from further study for a number of reasons, including considerable resource damage that would occur to construct a boat launch that was safe and accessible; impacts to fish and riparian species; and the potential of other jurisdictions to provide nearby river access points.

(g) and (h) Due to the urban nature of the refuge, the potential demand for this use would be very high. The amount of oversight needed to adequately carry out this activity would require additional resources that are not available now or in future budget and staff projections. Also, construction would need to occur to develop a boat launch and this most likely would cause direct resource damage.

(j) Currently the use cannot be accommodated without impairing existing wildlife-dependent recreational uses. However, as stated under Objective 10.4 in this CCP/EA, the refuge would “partner with interested parties/organizations to identify potential locations for one public river access for nonmotorized boats in or near the refuge.” At that time, if a location is identified on the refuge, refuge staff would re-evaluate the appropriateness of the use.

References

USFWS. 2003a. Tualatin River National Wildlife Refuge environmental assessment, Wildlife Center and visitor services facilities, Washington County, Oregon. U.S. Fish and Wildlife Service, Portland, OR. 318 pp.

Appropriate Uses Justification, Attachment 3

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Commercial or Recreational Trapping

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		✓
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?		✓
(h) Will this be manageable in the future within existing resources?		✓
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		✓
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: _____

Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____

Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Commercial or recreational trapping

Summary: Commercial and/or recreational trapping does not contribute to the goals of the refuge and would require more oversight from staff than is currently available. This use was determined to be not appropriate.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(e) There are no refuge management plans that address commercial or recreational trapping. This use is not consistent with the goals and objectives as written in the CCP/EA. The use would significantly conflict with wildlife.

(g) and (h) Current limited budget and staff time would be diverted from priority wildlife-dependent public use and management activities to administer commercial or recreational trapping activities. Future management of commercial or recreational trapping would not be achievable with existing resources. Providing appropriate oversight of the use would exceed existing and future projections of budget and staff.

(i) Commercial or recreational trapping would not contribute to the public's understanding and appreciation of cultural or natural resources.

Appropriate Uses Justification, Attachment 4

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Commercial or Recreational Trapping

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		✓
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?		✓
(h) Will this be manageable in the future within existing resources?		✓
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		✓
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ___ No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate ___

Refuge Manager: _____

Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____

Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Commercial visitor services

Summary: Commercial visitor services on the refuge cover a broad range of wildlife-dependent recreation and education activities that are led by any organization or individual that charges a fee to participate in the activity. Activities could include, but are not limited to: birding tours, plant identification, wildlife photography, art, interpretive programs, guided trail walks, training workshops, summer youth camp, nature classes, and other similar non-consumptive uses. These uses would occur in areas and facilities that are open to the public and would support the identified wildlife-dependent public uses of the refuge. Organizations conducting commercial visitor services would require a Special Use Permit (SUP), except for the Friends of Tualatin River Refuge (Friends) for which commercial activities that are governed by statute under an existing Memorandum of Understanding.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(c) As defined in federal regulations ([50 Code of Federal Regulations \[CFR\] 29.1](#)), a commercial recreational use is a use that generates revenue or that results in a commodity that is or can be sold for income or revenue.

The Appropriate Use policy ([603 FW 1](#)) specifically references commercial uses of this kind. The policy states that “Commercial uses of a refuge may be considered appropriate if they are a refuge management economic activity (see [50 CFR 25.12](#)), if they directly support a priority general public use, or if they are specifically authorized by statute.”

(d) Through SUP review and/or coordination with the Friends of the Refuge group, the refuge would ensure that each approved activity is consistent with public safety. If necessary, stipulations to ensure public safety would be included in the project’s SUP.

(e) The use is consistent with Goals 12, 13, and 14 of the CCP/EA. Requests would be approved in instances where they can provide meaningful public appreciation of natural resources in support of the refuge’s wildlife-dependent recreation and education programs.

(j) The refuge would ensure that the activities do not impair existing or future wildlife-dependent recreational use of the refuge during individual project review, prior to issuing SUPs and/or approvals.

Appropriate Uses Justification, Attachment 5

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Cooperative Farming

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		✓
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Cooperative farming on the refuge

Summary: Cooperative farming is currently allowed on the refuge. Seventy percent of small grain croplands (corn, wheat, barley, and oats) are harvested, while 30 percent are left standing, and green pastures (clover and hay grass) are harvested and mowed at less than 4 inches in the fall for grazing. Cooperative farming is an interim management tool used to control invasive plant species. This use has been determined to be appropriate.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(e) Cooperative farming is consistent with Goal 7 in Chapter 2 of the CCP/EA. Cultivating and maintaining small croplands helps control nonnative invasive species such as reed canarygrass and Himalayan blackberry prior to restoration of native habitats.

(f) The use is ongoing on the Onion Flats and Wapato Lake Units of the refuge as an interim management tool prior to restoring acquired lands.

(g) Cooperative farming is conducted by local growers who incur all costs associated with growing and harvesting crops. The cooperator is responsible for all aspects of farming including site preparation, seeding, application of any fertilizers or herbicides, harvesting, and any follow-up work necessary to remove the crop or prepare the field for the following year. Cooperators are required to leave a share of crops as determined by a cooperative agreement.

(i) As mentioned in the features common to all alternatives in Chapter 2 of this CCP/EA, cooperative farming contributes to the public's understanding and appreciation of the refuge's natural resources by providing public use and focus on habitat restoration.

Appropriate Uses Justification, Attachment 6

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Dog walking and training

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		✓
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		✓
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?		✓

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: _____

Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____

Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Dog walking and training

Summary: Dog walking and training have been determined to be not appropriate due to wildlife disturbance and lack of a contribution to the refuge's cultural or natural resources. This use is not considered a wildlife-dependent use.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(e) The amount of disturbance that would be created by these uses is considered inconsistent with other goals and objectives in the CCP/EA.

(i) These uses are not likely to contribute to public understanding of the refuge's natural or cultural resources. The uses are not likely to be beneficial to the refuge's natural or cultural resources, and could be detrimental to those resources.

(j) It is likely that these uses would degrade the quality of the visitor experience and would impair existing wildlife-dependent uses. Dogs elicit a greater response from wildlife than people on foot alone (Hoopes 1993; MacArthur et al. 1982). The presence of dogs may flush incubating birds from nests (Yalden and Yalden 1990), disrupt breeding displays (Baydack 1986), disrupt foraging activity in shorebirds (Hoopes 1993), and disturb roosting activity in ducks (Keller 1991). For mule deer in Colorado, the presence of a dog resulted in a greater area of influence, alert and flush distance, and distance moved than when a pedestrian was alone (Miller et al. 2001). Many of these authors indicated that dogs with people, dogs on leash, or loose dogs provoked the most pronounced disturbance reactions from their study animals. Indirectly, domestic dogs can also potentially introduce diseases and transport parasites into wildlife habitats (Sime 1999).

References

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- Hoopes, E.M. 1993. Relationship between human recreation and piping plover foraging ecology and chick survival. M.S. thesis. University of Massachusetts, Amherst, MA.
- Keller, V. 1991. Effects of human disturbance on eider ducklings *Somateria mollissima* in an estuarine habitat in Scotland. *Biological Conservation* 58:213-228.
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- Miller, S.G., R.L. Knight, and C.K. Clinton. 2001. Wildlife responses to pedestrians and dogs. *Wildlife Society Bulletin* 29:124-132.
- Sime, C.A. 1999. Domestic dogs in wildlife habitats. Pages 8.1-8.17 in: G. Joslin and H. Youmans, coordinators. *Effects of recreation on Rocky Mountain wildlife: a review for Montana*. Committee on Effects of Recreation on Wildlife, Montana chapter, Wildlife Society. 307 pp.

Yalden, P.E. and D. Yalden. 1990. Recreational disturbance of breeding golden plovers (*Pluvialis apricarius*). *Biological Conservation* 51:243-262.

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Appropriate Uses Justification, Attachment 7

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Geocaching

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?		✓
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		
(d) Is the use consistent with public safety?		
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		
(g) Is the use manageable within available budget and staff?		
(h) Will this be manageable in the future within existing resources?		
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?		

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: _____

Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____

Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Geocaching

Summary: Geocaching, also known as letterboxing, is an outdoor activity in which participants use a global positioning system (GPS) device or other navigational technique to hide and seek containers called “geocaches” or “caches.” When physical placement is not involved and instead participants take a photograph of themselves in front of the defined feature or record some information about such a feature, the use is known as “virtual geocaching.” This appropriate use determination covers only physical geocaching.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(b) According to [50 CFR 27.93](#), abandoning, discarding, or otherwise leaving any personal property in any national wildlife refuge is prohibited.

Due to the negative finding on (b), the use was not evaluated further and is considered inappropriate.

Appropriate Uses Justification, Attachment 8

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Mosquito and disease vector management

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Mosquito and disease vector management

Summary: In the interest of human health and public safety, mosquito and disease vector management has been determined to be an appropriate use to help control the spread of mosquito-borne diseases.

Further explanation of the answers from USFWS Form 3-2319 is provided below:

(e) Mosquito and disease vector management is consistent with features common to all alternatives in Chapter 2 of this CCP/EA. With the spread of mosquito-borne diseases across the country, refuges have come under increasing pressure to manage mosquito populations that are bred or harbored within refuge boundaries. The refuge will refer to the interim guidance for refuges that the Director of the Service has produced until the Service policy document is finalized.

(f) This is the first time the use has been formally proposed.

(g) The use would be manageable within available budget and staff. Monitoring and control of target mosquito larvae would be conducted by the Washington County Mosquito Control District (District). The District would be responsible for staffing and expenditures for sampling and pesticide applications. Refuge staff resources would be needed to review annual proposals, prepare SUPs, and monitor District personnel to ensure compliance.

(h) Future mosquito and disease vector management would be conducted by non-refuge staff with minimal refuge staff oversight.

(i) Providing information on mosquito-borne diseases is beneficial to the public. Arboviral (arthropod-borne viral) diseases are a potential concern. These include West Nile virus, western equine encephalitis, and St. Louis encephalitis.

(j) The impacts of mosquito monitoring and treatment would be localized and temporary. The treatments and monitoring would be conducted in areas closed to public use, meaning they would likely not conflict with any wildlife-dependent public uses in the future. Any mosquito control undertaken would have minimal impact on any priority wildlife-dependent public use program. The disturbance of wildlife by District staff is minimized to the extent practicable by restricting access to sensitive areas and by controlling the type of access. The impacts anticipated from the logistical activities resulting from the proposed monitoring and treatment actions on wildlife are minimal.

Appropriate Uses Justification, Attachment 9

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Tualatin River National Wildlife Refuge

Use: Research and monitoring

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Refuge: Tualatin River National Wildlife Refuge

Use: Research and monitoring

Summary: Research and monitoring on refuge lands are fundamentally valuable as they make available scientific information for resource management decisions. The refuge receives requests from universities and other organizations to conduct scientific research and monitoring efforts within the refuge. These uses have been ongoing on the refuge for many years, and are consistent with the CCP goals. Research and monitoring are determined to be appropriate uses.

Further explanation of the answers from FWS Form 3-2319 is provided below:

(e) Research and monitoring are consistent with Goal 8 of this CCP/EA. Conducting research and monitoring studies would provide the refuge with the best science with which to conduct refuge operations. Determining resource status and evaluating progress toward achieving objectives is essential to implementing adaptive management on the refuge. Research projects on refuge lands would address a wide range of natural and public use management issues. Examples of research projects include habitat use and life history requirements for specific species/species groups, practical methods for habitat management and restoration, extent and severity of environmental contaminants, techniques to control or eradicate pest species, effects of climate change on environmental conditions and associated habitat/wildlife response, modeling of wildlife populations, and assessing response of habitat/wildlife to disturbance from public uses.

(f) This is the first time these uses have been formally proposed.

(g) The use would be manageable within available budget and staff. Proposed research and monitoring would be conducted by outside entities, not refuge staff. Minimal refuge staff time is anticipated for project oversight.

(h) Future use would not be conducted by refuge staff, but by outside personnel, with minimal refuge staff oversight.

(i) Providing information on current status and trends of fish and wildlife populations is beneficial for public education and interpretation.

(j) Any research or monitoring project would be undertaken such that it would have minimal interference with any priority wildlife-dependent public use program.