

**Aquatic Nuisance Species
Hazard Analysis And Critical Control Point Plan**

Quilcene National Fish Hatchery Coho Salmon Culture

Activity Description	
Facility: Quilcene National Fish Hatchery	Site: Quilcene, WA (Big Quilcene River)
Project Coordinator: Larry Telles Sonia Mumford	Activity: Aquaculture (Coho Salmon)
Site Manager: Ron Wong	
Address: 281 Fish Hatchery Rd. Quilcene, WA 98376	
Phone: 360-765-3334	

Project Description
<p>Quilcene NFH was authorized by 35 Stat. 589 on June 29, 1909 and is currently operated by the U.S. Fish & Wildlife Service, an agency of the Department of Interior. This statute authorized the Secretary of Commerce and Labor to establish "two or more fish cultural stations on Puget Sound, or its tributaries in the State of Washington, for the propagation of salmon and other food fishes".</p> <p>Quilcene NFH is located in northwestern Washington at the confluence of the Big Quilcene River and Penny Creek on the east side of the Olympic Peninsula in Jefferson County . The hatchery facilities lie in a narrow valley approximately 2.6 miles upstream of Dabob Bay, an arm of Hood Canal.</p> <p>The mission of Quilcene NFH is to produce migrant salmon smolts for the restoration and enhancement of salmonid stocks in Puget Sound for the benefit of all citizens including the support of traditional tribal commercial and subsistence fisheries. These migrating fish ultimately will provide returns of sufficient numbers of adults to benefit commercial, recreational, tribal commercial and tribal subsistence fisheries, as well to provide fish for hatchery production and to aid in the recovery of imperiled stocks of salmonids in Puget Sound. The hatchery currently raises only coho salmon (<i>Oncorhynchus kisutch</i>).</p>

Hazards: Species Which May Potentially Be Moved/Introduced

Vertebrates:

List Species/Types: None.

Comments: No survey done.

Invertebrates:

List Species/Types: None.

Comments: No survey done.

Plants:

List Species/Types: None.

Comments: No survey done.

Other Biologics: (Fish Pathogens)

List Species/Types: Coldwater Disease (*Flexibacter psychrophila*)

Bacterial Kidney Disease (*Renibacterium salmoninarum*)

Various parasites

Viruses

Others:

List Species/Types: None

Comments:

Flow Diagram

Task 1	Adult collection for spawning, carcass distribution to Tribes and Bureau of Prisons contractor for human and pet consumption, and passing adult fish upstream
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Task 2	Spawning.
-	
Task 3	Egg incubation, shocking, and counting.
-	
Task 4	Eyed eggs transferred to George Adams Fish Hatchery (Washington Department of Fish & Wildlife).
-	
Task 5	Fish reared in raceways.
-	
Task 6	Fish marked and tagged.
-	
Task 7	Fish transferred to Skokomish net pen in Quilcene Bay.
-	
Task 8	Fish released into Big Quilcene River from hatchery.

Hazard Analysis Worksheet

1 Tasks (from HACCP Step 3 – Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point (yes/no)
Adult Collection and Carcass Distribution to Tribes and Bureau of Prisons contractor and passing adult fish upstream	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potential pathogen Carriers	Discontinue Upstream Passage	No
Spawning	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Sampling broodstock for disease which may result in culling of broodstock or eggs, disinfection of eggs in iodophore	No

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Egg incubation, shocking, and counting	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Disinfect equipment	No

1 Tasks (from HACCP Step 3 – Flow Diagram)	2 Potential hazards identified in HACCP Step 2	3 Are any potential hazards probable? (yes/no)	4 Justify evaluation for column 3	5 What control measures can be applied to prevent undesirable results?	6 Is this task a critical control point (yes/no)
Eyed eggs transferred to George Adams Fish Hatchery (Washington Department of Fish & Wildlife)	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Sampling broodstock for disease which may result in culling of broodstock or eggs, disinfection of eggs in iodophore	Yes
Fish reared in raceways	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Fish health monitoring by Fish Health Center pathologist, adhering to density and flow indices recommended by Fish Health Pathologist	No

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Fish marked and tagged	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Disinfection of trailer and equipment between species and before moving trailer	Yes
Fish transferred to Skokomish net pen in Quilcene Bay	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Pre-transfer sampling of fish population Disinfection of state and tribal equipment	Yes

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Fish released into Big Quilcene River from hatchery.	Vertebrates None	No		n/a	No
	Invertebrates None	No		n/a	No
	Plants None	No		n/a	No
	Others Fish Pathogens	Yes	Potentially pathogenic	Pre-release disease sampling of fish population	Yes

HACCP Plan Form									
			Monitoring						
Critical Control Point (CCP)	Significant Hazard(s)	Limits for each Control Measure	What	How	Frequency	Who	Evaluation & Corrective Action(s) (if needed)	Supporting Documentation (if any)	
Eyed eggs transferred to George Adams Fish Hatchery	Pathogen or Disease Transfer	>100 ppm iodophore for > 1/2 hour; culling based on results of disease sampling of broodstock; < 76 ppm iodophore < 11 minutes @ receiving hatchery visual check for plant, animal contamination	100% of eggs	RESPONSIBILITY OF RECEIVING HATCHERY					
Fish Tagged and Marked	Pathogen or Disease Transfer	> 200 ppm Chlorine; > 70 % alcohol; > 100ppm iodophore solution. Contact time: > 10 minutes	Disinfection of trailer and equipment	Apply to all surfaces and pipes via spray or wipe	Between species and before leaving hatchery	Tag Super	Repeat disinfection process properly	Log Book	
Fish transfer to Skokomish net pen in Quilcene Bay	Pathogen or Disease Transfer	Pre-transfer sample by pathologist	60 fish sample from lot to be transferred	Random grabs from throughout population to be released	Once prior to release 3 weeks prior to transfer	OFHC	Treat or do not transfer	Fish Health Inspection Report	
Fish released to Big Quilcene River from hatchery	Pathogen or Disease Carriers	Pre-release sample by pathologist	60 fish sample from lot to be released	Random grabs from throughout population to be released	Once prior to release 3 weeks prior to release	OFHC	Treat or do not release	Fish Health Inspection Report	

Facility: Quilcene National Fish Hatchery	Activity: Aquaculture (Coho Salmon)
Address: 281 Fish Hatchery Rd. Quilcene, WA 98376	
Signature: HACCP Plan was followed. Plan will be modified to reflect future ANS risks as they become apparent and are identified.	Date: