Activity Description	
Facility: Quinault National Fish Hatchery	Site: Humptulips, WA. (Cook Cr. - Quinault R)
Project Coordinator: Mark Galloway Ray Brunson	Activity: Aquaculture (Coho, fall Chinook, and chum salmon and steelhead trout)
Site Manager: Vacant	
Address: 3 Sockeye Rd. Humptulips, WA. 98552	**COHO SALMON**
Phone: 360.288.2508	

Project Description
The Quinault NFH is located on Cook Creek 4.5 miles above its confluence with the Quinault River. The Quinault River then flows approximately 16.5 miles before entering the Pacific Ocean. The Quinault NFH was established in 1968 "...to restore and enhance depleted runs of salmon and steelhead on the Quinault Indian Reservation and adjacent Federal lands...". Cook Creek originates from Quinault Ridge on the west slope of the Olympic Mountains in the Olympic National Forest. The creek flows through a patchwork of U.S. Forest Service (USFS) and Rayonier Timberlands Operating Company lands before leaving the USFS property and entering the Quinault Indian Reservation at about river mile (RM) 5.2. Tribal and Rayonier Timberlands Operating Company lands are managed for timber harvest. Each year's proposed fish production program is communicated with the State and Tribal co-managers through the annual Future Brood Document process that includes all Washington hatcheries. The current production program includes releases of 1.5 million fall chum, 600,000 fall Chinook, 600,000 coho salmon, and 190,000 steelhead trout into Cook Creek. We also release 50,000 steelhead trout yearlings into the Hoh River and 60,000 coho sub-yearlings into a beaver pond adjacent to the Quinault River. The hatchery also transfers 50,000 steelhead trout sub-yearlings to the Chalaat Creek facility operated by the Hoh Tribe. The overall production program, including the species and numbers produced, has remained fairly stable over the last 10 years.

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: (Pathogen) List Species/Types: *Renibacterium salmoninarum* (bacterial kidney disease). *Flavobacter psychrophilum* (bacterial coldwater disease). *Infectious Hematopoietic Necrosis Virus* (IHN) *Aeromonas salmonicida* (furunculosis) Comments:
Others: List Species/Types: None. Comments:

Flow Diagram

Coho

Task 1	Adult collection and carcass distribution to residents and Bureau of Prisons contractor.
∇	
Task 2	Spawning
∇	
Task 3	Egg incubation, shocking, and counting
∇	
Task 4	Fish reared in tanks/raceways
∇	
Task 5	Fish (fry) released upstream of the hatchery in Cook Creek
∇	
Task 6	Fish marked and tagged
∇	
Task 7	Fish (pre-smolts) released into Camp 7 pond
∇	
Task 8	Fish (smolts) released at the hatchery into Cook Creek
∇	
Task 9	Visiting biologists doing various sampling.

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	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish Pathogens	No	Carcasses Processed Process		No
Spawning	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish Pathogens	Yes	Potential transmission of pathogens	Egg and/or adult culling, and egg water hardening in iodophor	No
Egg incubation	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish Pathogens	Yes	Potential pathogen carriers	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)
Fish rearing	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish Pathogens	Yes	Potential pathogen amplification	Treat for disease, disinfect equipment	No
Fish (fry) released upstream	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish Pathogens	Yes	Potential pathogen transmission	Treat for disease or do not release	Yes
Fish marked/tagged	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish pathogens	Yes	Potential pathogen transmission	Disinfect tag trailer between species and hatcheries	Yes

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**	6 **Is this task a critical control point (yes/no)**
Fish (pre-smolts) released to Camp 7	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish pathogens	Yes	Potential pathogen transmission	Treat for disease or do not release	Yes
Fish (smolts) released at the hatchery	Vertebrates None				
	Invertebrates None				
	Plants None				
	Others Fish pathogens	Yes	Potential pathogen transmission	Treat for disease or do not release	Yes
Visiting biologists	Vertebrates None				
	Invertebrates None				
	Plants None				
	Other Fish pathogens	Yes	Potential pathogen transmission	Disinfect equipment and personal gear	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)**
Fry released upstream of hatchery	Pathogen or disease carrier	Pre-release sample by pathologist	60 fish sample from release group	Random sample	Once 28-42 days before release	OFHC	No release or treat for disease before release	Fish Health Inspection Report
Fish marked and tagged	Pathogen or disease transmission	Use 200 ppm chlorine, 70% isopropyl alcohol or 100 ppm iodophor solutions for disinfecton-10 minutes contact time	Disinfect tag equipment and trailer	Apply to all surfaces and pipes via spray or wipe	Between each species and hatchery	Tag super	Visual inspection and log check. If not completed disinfect before beginning next program	Log book
Pre-smolts released to Camp 7	Pathogen or disease carrier	Pre-release sample by pathologist	60 fish sample from release group	Random sample	Once 28-42 days before release	OFHC	No release or treat for disease before release	Fish Health Inspection Report

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)**
Smolts released at hatchery	Pathogen or disease carrier	Pre-release sample by pathologist	60 fish sample from release group	Random sample	Once 28-42 days before release	OFHC	No release or treat for disease before release	Fish Health Inspection Report
Visiting biologists	Pathogen or disease transmission	Use iodophor or 70% alcohol and ten minute contact time	Disinfect equipment and personal gear	Apply to all surfaces via dip or wipe	Upon leaving on each trip	Staff	Visual inspection	n/a
Facility: Quinault National Fish Hatchery					**Activity:** Aquaculture (Coho Salmon)			
Address: 3 Sockeye Road, Humptulips, WA 98552								
Signature: **HACCP Plan is followed. Plan will be modified to reflect future ANS risks as they become apparent and are identified.**					Date:			