

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

Hotchkiss National Fish Hatchery

**Rainbow Trout
Egg, Fingerling, and Catchable Production**

April 30, 2007

Activity Description	
Facility: Hotchkiss National Fish Hatchery	Site: Main Hatchery
Project Coordinator: Adam P. Mendoza	Activity: Rainbow trout (<i>Oncorhynchus mykiss</i>) egg, fingerling, and catchable production.
Site Manager: Adam P. Mendoza	
Address: 8077 Hatchery Road Hotchkiss, Colorado 81419	
Phone: 970-872-3170 FAX: 970-872-3643	
Project Description	
<p>Hotchkiss NFH is a highly productive hatchery that is one of the largest trout producing disease free facilities in the U.S. Fish and Wildlife Service=s Region 6 system. The hatchery annually produces over 1.4 million rainbow trout for the Colorado River Storage Project Reservoirs and in a Memorandum of Agreement with the Colorado Division of Wildlife. In addition, the hatchery has recently started to produce rainbow trout for the Southern Ute Indian Reservation and is expected to produce trout for the Animas-La Plata Project Reservoir. Each year the hatchery produces over 3000 fish at eleven to twelve inches to be used for outreach at three Service facilities in annual fishing derby/education programs.</p>	

Hazards: Species Which May Potentially Be Moved/Introduced

Vertebrates: None

List Species/Types:

Comments:

Invertebrates: Tubifex worms (*Tubifex tubifex*)

List Species/Types: New Zealand Mud Snail (*Potamopyrgus antipodarum*)

Comments: Tubifex worms are the secondary host of Whirling disease. New Zealand Mud Snails has made its way to eastern Colorado and the possibility exists of the snails being transferred to this area.

Plants

List Species/Types: Eurasian watermilfoil

Comments:

Other Biologic:

List Species/Types: Fish Pathogens especially Whirling disease (*Myxobolus cerebralis*)

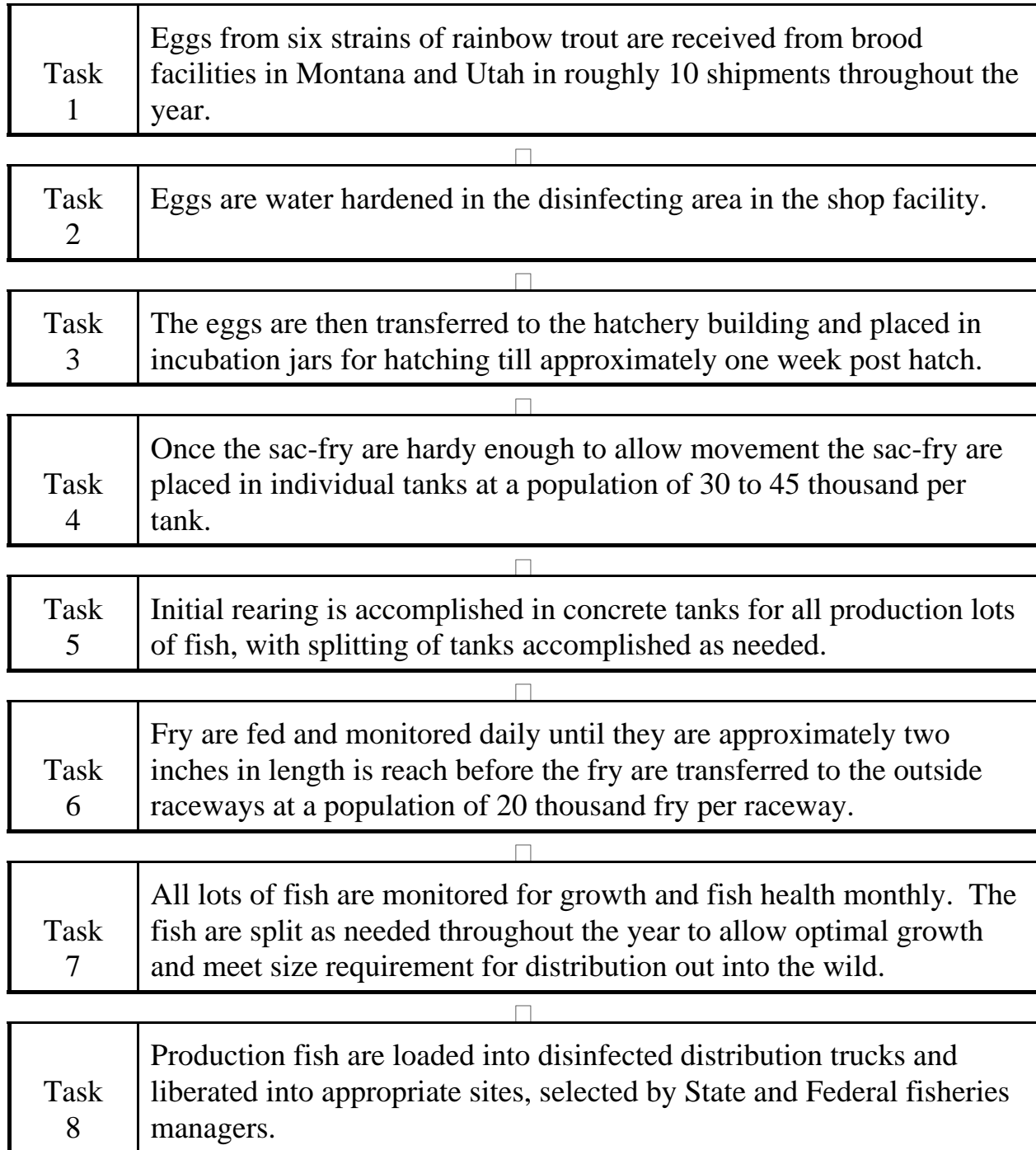
Comments: Whirling disease infected wild fish are found in the North Fork of the Gunnison River below the hatchery and throughout the Gunnison River.

Others: None

List Species/Types:

Comments:

Flow Diagram



Hazard Analysis Worksheet

1 Tasks (from HACCP Step 3 B 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)
<p style="text-align: center;">Task 1</p> <p>Eggs from six strains of rainbow trout are received from brood facilities in Montana and Utah in roughly 10 shipments throughout the year.</p>	Vertebrates	No	n/a	n/a	No
	Invertebrates <i>T. tubifex</i> & NZMS	No	n/a	n/a	No
	Plants Eurasian watermilfoil	No	n/a	n/a	No
	Others Fish pathogens	No	n/a	n/a	No
<p style="text-align: center;">Task 2</p> <p>Eggs are water hardened in the disinfecting area in the shop facility.</p>	Vertebrates	No	n/a	n/a	No
	Invertebrates <i>T. tubifex</i> & NZMS	Yes	Unknown water source of eggs	Request eggs are sent on secure clean water, visual inspection	Yes
	Plants Eurasian watermilfoil	Yes	Unknown water source of eggs	Request eggs are sent on secure clean water, visual inspection	Yes
	Others: Fish pathogens	Yes	transfer disease thru egg shipment	Request eggs are sent on secure clean water, iodophor disinfection	Yes
<p style="text-align: center;">Task 3</p> <p>The eggs are then transferred to the hatchery building and placed in incubation jars for hatching till approximately one week post hatch.</p>	Vertebrates	No	n/a	n/a	No
	Invertebrates <i>T. tubifex</i> & NZMS	No	Fish on secured water source	n/a	No
	Plants Eurasian watermilfoil	No	Fish on secured water source	n/a	No
	Others: Fish pathogens	Yes	Maybe in water supply	Disinfectant, log mortality, administer treatments	No

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Task 4 Once the sac-fry are hardy enough to allow movement the sac-fry are placed in individual tanks at a population of 30 to 45 thousand per tank.	Vertebrates	No	n/a	n/a	No
	Invertebrates <i>T. tubifex</i> & NZMS	No	Fish on secured water source	n/a	No
	Plants Eurasian watermilfoil	No	Fish on secured water source	n/a	No
	Others: Fish pathogens	Yes	Maybe in water supply	Disinfectant, log mortality, administer treatments	No
Task 5 Initial rearing is accomplished in concrete tanks for all production lots of fish, with splitting of tanks accomplished as needed.	Vertebrates	No	Buildings over raceways	Cover raceways	No
	Invertebrates <i>T. tubifex</i> & NZMS	No	Fish on secured water source	Clean raceways	No
	Plants Eurasian watermilfoil	No	Fish on secured water source	Clean raceways	No
	Others Fish pathogens	Yes	Densities of fish in raceways	Control densities	No
Task 6 Fry are fed and monitored daily until they are approximately two inches in length is reach before the fry are transferred to the outside raceways at a population of 20 thousand fry per raceway.	Vertebrates	No	Buildings over raceways	Cover raceways	No
	Invertebrates <i>T. tubifex</i> & NZMS	No	Fish on secured water source	Clean raceways	No
	Plants Eurasian watermilfoil	No	Fish on secured water source	Clean raceways	No
	Others Fish pathogens	No	Densities of fish in raceways	Control densities	No

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<p>Task 7</p> <p>All lots of fish are monitored for growth and fish health monthly. The fish are split as needed throughout the year to allow optimal growth and meet size requirement for distribution out into the wild.</p>	Vertebrates	No	Secured water source	n/a	No
	Invertebrates <i>T. tubifex</i> & NZMS	No	Secured water source	n/a	No
	Plants Eurasian watermilfoil	No	Secured water source	n/a	No
	Others Fish pathogens	Yes	May be in water supply	Fish culture disinfection procedures, monitor mortality and fish health performed	Yes
<p>Task 8</p> <p>Production fish are loaded into disinfected distribution trucks and liberated into appropriate sites, selected by State and Federal fisheries managers.</p>	Vertebrates	No	n/a	n/a	No
	Invertebrates <i>T. tubifex</i> & NZMS	Yes	Organisms may be transported by trucks	Disinfection of truck prior to and after loading fish and visual inspection	Yes
	Plants Eurasian watermilfoil	Yes	Organisms may be transported by trucks	Disinfection of truck prior to and after loading fish and visual inspection	Yes
	Others Fish pathogens	Yes	Pathogens may be transported by trucks	Disinfection of truck prior to and after loading fish and visual inspection	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)	
Task 2	T. tubifex, NZMS, watermilfiol, fish pathogens	0 tolerances for inverts. and plants, vertically transmitted pathogens	Imported egg container	visually	Every container received	Hatchery staff	Cull eggs	Fish Health Reports, Known secured water source	
Task 7	fish pathogens	0 tolerance for regulated pathogens, intensity of infection	Fish Health	visually and microscopically	Daily, monthly to yearly	Culturist and FHC	Consult fish health and/or fish treated by bath or flow through	Fish Health reports, mortality data, fish health policy, Hatchery management plan	
Task 8	T. tubifex, NZMS, watermilfiol, fish pathogens	0 tolerance	Distribution equipment	Visual inspection, vehicle log	every trip	drivers	Re-disinfect truck	Vehicle log, inspection log	
Facility: Hotchkiss National Fish Hatchery					Activity: Rainbow trout egg, fingerling and catchable production.				
Address: 8077 Hatchery Road Hotchkiss, Colorado 81419									
Signature:					Date:				
HACCP Plan was followed.									

