

Rio Grande Cutthroat Trout HACCP Plan

(Hazard Analysis and Critical Control Point)

Rio Grande Cutthroat Trout Subadult Production

1. Product Description
2. Flow Diagram
3. Potential Hazards
4. Hazard Analysis Worksheet
5. HACCP Plan Form

1. Product Description

Firm Name:	Mora National Fish Hatchery & Technology Center
Firm Address:	PO Box 689 Mora, New Mexico 87732
Species of fish:	Rio Grande Cutthroat Trout
Cultured, wild harvested, or both:	Cultured & wild harvested
Harvest method:	Fish Pump and dip net
Method of distribution and storage:	Held in fiberglass raceways or glass tanks
Intended use and consumer:	Stocking into lakes and rivers

2. Flow Diagram

Step 1	Eggs received from certified disease free sources or adults received or wild gametes received
Step 2	Eggs disinfected with Argentyne (Iodine) via approved methods. Adults placed in quarantine until Fish Health Certified
Step 3	Eggs stocked into incubators fed with well water. Wild eggs and gametes kept in quarantine until Fish Health Inspection
Step 4	Hatched eggs (sac fry) are placed into grow-out containers
Step 5	Fish grown to appropriate sizes for stocking
Step 6	Fish crowded and then dip netted onto trucks or are loaded onto trucks using a Fish Pump
Step 7	Fish are transported via truck to rivers, lakes or alternate holding facilities
Step 8	Fish are dip netted from trucks or water and fish are drained from the truck into lakes, rivers or alternate facilities

3. Potential Hazards

List aquatic species here that are found in hatchery water supply or local waters that could potentially hitchhike to receiving waters and cause ecological harm. These are called *Aquatic Nuisance Species (ANS)*.

- a. **ANS Fish:** Examples: Eurasian ruffe, round goby. Asian carps, non-native amphibians, etc.
None
- b. **ANS Invertebrates:** Examples: zebra mussels, Asian clams, spiny water fleas, rusty crayfish, etc.
Local Snails Whirling Disease (parasitic organism)
- c. **ANS Plants:** Examples: Eurasian watermilfoil, hydrilla, giant salvinia, water chestnut, etc.
None

4. Hazard Analysis Worksheet

(1) Harvest or Aquaculture Step	(2) Identify potential ANS hazards introduced or controlled at this step (1)	(3) Are any potential ANS hazards significant? (Yes/No)	(4) Justify your decisions for column 3.	(5) What preventive measures can be applied to prevent the significant hazards?	(6) Is this step a critical control point? (Yes/No)
1) Eggs received	Fish	No	ANS not present		
	Invertebrate: Whirling Disease	Yes	Possible contamination of egg surfaces	Controlled at later step	No
	Plant	No	ANS not present		
2) Eggs disinfected	Fish	No	ANS not present		
	Invertebrate: Whirling Disease	Yes	Possible contamination of egg surfaces	Disinfection of eggs	Yes
	Plant	No	ANS not present		
3) Eggs stocked to incubators	Fish	No	ANS not present		
	Invertebrate:	No	ANS not present		
	Plant	No	ANS not present		
4) Sac Fry to grow-out tanks	Fish	No	ANS not present		
	Invertebrate	No	ANS not present		
	Plant	No	ANS not present		
5) Fish grow-out	Fish	No	ANS not present		
	Invertebrate	No	ANS not present		
	Plant	No	ANS not present		
6) Fish crowded and then dip netted for transport	Fish	No	ANS not present		
	Invertebrate: Local snails	Yes	Snail could be present	Remove snails dry net	Yes
	Plant	No	ANS not present		
7) Fish transported	Fish	No	ANS not present		
	Invertebrate	No	ANS not present		
	Plant	No	ANS not present		
8) Fish stocked	Fish	No	ANS not present		
	Invertebrate	No	ANS not present		
	Plant	No	ANS not present		

Firm Name: Mora National Fish Hatchery and Technology Center	Species of Fish: Rio Grande Cutthroat Trout
Firm Address: PO Box 689 Mora, New Mexico 87732	Cultured, wild harvested, or both: Cultured
Signature:	Intended Use and Consumer: Stocking into lakes or rivers
Date:	

5. ANS - HACCP Plan Form

(1) Critical Control Point (CCP)	(2) Significant Hazard(s)	(3) Control Measures	Monitoring				(8) Corrective Actions(s)	(9) Records	(10) Verification
			(4) What	(5) How	(6) Frequency	(7) Who			
Eggs are received from broodstock facility	Whirling Disease could be brought on station	Eggs are disinfected with argentine to kill early life stages	Disinfectant	Standard protocol	Each time eggs are received	Manager or Assistant Manager	If disinfection not done kill egg lot and sterilize containers	Record receipt of egg lots and disinfection recorded at receipt	Records review
Snails present in the water could be loaded with fish	Snails could be moved to exotic habitat	Tanks are inspected prior to crowding fish. If snails are present, sweep raceways/tanks to remove snails.	Time and presence of snails	Visual inspection	Each time fish are hauled	Manager or Assistant Manager	If snails are found sweep raceways/tanks and reinspect prior to loading fish.	Record loading of fish and time of inspection	Records review

Firm Name:	Mora National Fish Hatchery and Technology Center	Species of Fish: Gila Trout
Firm Address:	PO Box 689 Mora, New Mexico 87732	Method of Storage and Distribution: Held in fiberglass raceways or glass tanks
Signature:	Intended Use and Consumer: Stocking into lakes or rivers	
Date:		