

HACCP Step 1 – Activity Description

Activity Description	
Facility: Iron River National Fish Hatchery	Site: Fish Production Facilities
Project Coordinator: Kurt Schilling	Activity: Fish Production
Site Manager: Dale Bast	
Address: 10325 Fairview Road Iron River, WI 54847	
Phone: 715-372-8510	

Project Description i.e. Who; What; Where; When; How; Why
<p>Iron River National Fish Hatchery produces up to 1.6 million lake trout and 200,000 coaster brook trout annually. The majority of the lake trout (1.2 million) are raised as yearlings. Other life stages raised include fry, and fingerlings. All fish are reared for distribution into waters of the upper Great Lakes. The typical rearing cycle for yearlings begins in February and ends in May of the following year. Fry are raised from February until early June, and fingerlings are raised to as late as November. Schacte Creek supplies water to the Hatchery for rearing. Intakes 2 and 3 supply first use water to the Brood and Hatchery Buildings. Intake 1 and a stream pump supply first use water to the Production Building and the water from the Brood and Hatchery Buildings is re-used in the Production Building.</p> <p>Iron River NFH produces roughly 75 percent of its own lake trout eggs and all of its own Coaster brook trout eggs. Iron River NFH is certified pathogen free. Historically Iron River NFH has received lake trout eggs from Sullivan Creek NFH and Allegheny NFH. Sullivan Creek is pathogen free however their source water is positive for <i>Salmincola edwardsii</i> a gill copepod that is problematic for brook trout. As a result, only eyed eggs are received from Sullivan Creek NFH. Allegheny NFH recently de-populated due to testing positive for virus. As a result, no eggs will be received from Allegheny for the foreseeable future.</p>

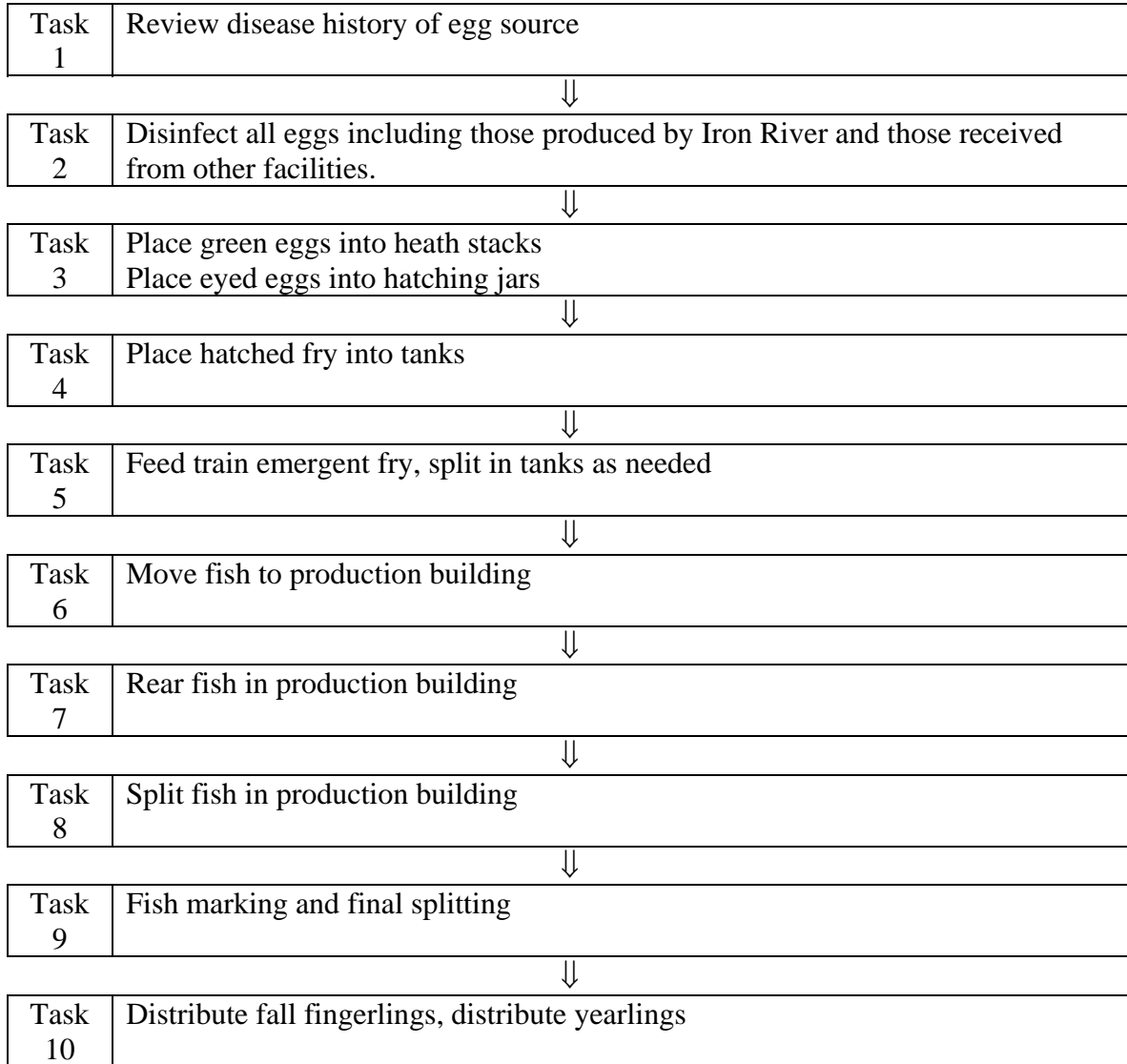
HACCP Step 2 – Identify Potential Hazards

(to be transferred to column 2 of HACCP Step 4 – Hazard Analysis Worksheet)

Hazards: Species Which May Potentially Be Moved/Introduced
Vertebrates: None present, however potential to be infested with Eurasian Ruffe, Round Goby
Invertebrates: None present however, New Zealand Mudsnaills; <i>Potamopyrgus antipodarum</i> , are located within 40 miles in St. Louis Bay of Lake Superior
Plants: Eurasian Water Milfoil, Purple Loosestrife
Other Biologics (e.g. disease, pathogen, parasite): Includes all fish diseases, pathogens and parasites not present in hatchery water supply. Currently no detectable fish pathogens present in hatchery water supply.
Others (e.g. construction materials, etc.):

HACCP Step 3 – Flow Diagram

Flow Diagram Outlining Sequential Tasks to Complete Activity/Project
Described in HACCP Step 1 – Activity Description
(to be transferred to column 1 of the HACCP Step 4 – Hazard Analysis Worksheet)



HACCP Step 4 - 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)
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Task 1 Review disease history of egg source	Vertebrates	Potential	May be present	Visual inspection	Yes
	Invertebrates	Potential	May be present	Visual inspection	Yes
	Plants	Potential	May be present	Visual inspection	Yes
	Others	Yes	Fish pathogens could be diagnosed or present in brood stock or water supply of egg source	Adult brood-stock inspected/certified prior to spawning. Disease certification of source verified. Brood lines isolated if created from wild stocks	Yes

Task 2 Disinfect all eggs including those produced by Iron River and those received from other facilities.	Vertebrates	Potential	May be present	Visual inspection	Yes
	Invertebrates	Potential	May be present	Visual inspection	Yes
	Plants	Potential	May be present	Visual inspection	Yes
	Others	Yes	Fish pathogens could be present in brood stock or water supply of egg source	Treat all eggs entering the hatchery building with 100 ppm Iodophor Iodine solution for 1 hour	Yes

Hazard Analysis Worksheet (continued)

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)
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Task 3 Place green eggs into heath stacks	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
Place eyed eggs into hatching jars	Others	Yes	Fish disease could be present in Schacte Creek water supply above intakes 2 & 3	Green eggs treated with formalin Eyed eggs incubated in multiple jars	No

Task 4 Place hatched fry into tanks	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply above intakes 2 & 3	Monitor for mortality Ensure correct rearing indices used and maximize use of 22 rearing tanks	No

Hazard Analysis Worksheet (continued)

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)
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Task 5 Feed train emergent fry, split in tanks as needed	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply above intakes 2 & 3	Monitor for mortality Ensure correct rearing indices used to minimize stress	No

Task 6 Move fish to production building	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply below intakes 2 & 3 and undetected pathogens may be carried over from previous rearing cycle	Production building raceways are power washed and dried prior to adding fish. Flow is maximized. Mortality monitored daily. Liquid O2 is used to maintain high D.O. level Fish health inspection occurs	Yes

Hazard Analysis Worksheet (continued)

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)
Task 7 Rear fish in production building	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply below intakes 2 & 3	Rearing indicies are monitored to prevent stressors. Mortality monitored daily. Liquid O2 is used to maintain high D.O. level review fish health inspection	No
Task 8 Split fish in production building	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply below intakes 2 & 3	Rearing indicies are monitored to prevent stressors. Mortality monitored daily. Liquid O2 is used to maintain high D.O. level, review Fish health inspection	No

Hazard Analysis Worksheet (continued)

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)
Task 9 Fish marking and final splitting	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply below intakes 2 & 3	Marking trailer cleaned and disinfected with Sanaqua (290 ppm) for 10 minutes prior to use Rearing indicies monitored to prevent stressors. Mortality monitored daily. Liquid O2 is used to maintain high D.O. level any fish with epizootic not combined	No

Task 10 Distribute fall fingerlings, distribute yearlings	Vertebrates	No	None present		No
	Invertebrates	No	None present		No
	Plants	No	None present		No
	Others	Yes	Fish disease could be present in Schacte Creek water supply below intakes 2 & 3	Fish health inspection occurs prior to release of fish	Yes

HACCP Step 5 – HACCP Plan Form

HACCP Plan Form								
(all CCP's or "yes's" from column 6 of HACCP Step 4 – Hazard Analysis Worksheet)								
Critical Control Point (CCP)	Significant Hazard(s)	Limits for each Control Measure	Monitoring				Evaluation & Corrective Action(s) (if needed)	Supporting Documentation (if any)
			What	How	Frequency	Who		
T1 - Review disease history of egg source	Vertebrates, invertebrates, Plants, Other Biologics	Egg source not certified pathogen free, wild brood not isolated, live fish may carry pathogens	Fish Health Inspection Report	Visual check call to shipping facility	Annually prior to spawning season	Assistant Manager or Project Leader	Do not accept eggs from uncertified source. Ensure all wild brood stock clear isolation Do not accept live fish from non isolated source	Fish Health Inspection Reports kept on file
T2 - Disinfect all eggs including those produced by Iron River and those received from other facilities.	Vertebrates, invertebrates, Plants, Other Biologics	Disinfection not successful or done incorrectly	Spawning Book	Visual check of records	As required	All biological staff	Ensure all eggs are treated with 100 ppm iodophor Iodine solution for one hour prior to putting in incubation	Spawning book kept on file by year class documenting eggs received or taken
T6 - Move fish to production building	Other Biologics	Mortality not reported on rearing record fish health inspection does not occur in time, viruses not treatable	Mortality sheets, Fish Health Inspection Report	Visual check of mortality sheets and FH Inspection Report	Mortality sheets daily, FH Inspection Bi-annually	All biological staff	Treat fish using prescribed medications and standard protocols, cull fish if required	Mortality sheets to be kept on file with production year class rearing records. Fish Health Inspection Reports kept on file
T10 - Distribute fall fingerlings, distribute yearlings	Other Biologics	Mortality not reported on rearing record, fish health inspection does not occur in time, viruses not treatable	Mortality sheets, Fish Health Inspection Report	Visual check of mortality sheets and FH Inspection Report	Mortality sheets daily, FH Inspection prior to release of fish	Lead Biologist, Assistant Manager	Treat fish using prescribed medications and standard protocols, cull fish if required do not release fish undergoing an epizootic	Mortality sheets to be kept on file with production year class rearing records. Fish Health Inspection Reports kept on file
Facility: Iron River National Fish Hatchery					Activity: Fish Production			
Address:								

10325 Fairview Road Iron River, WI 54847	
Signature: HACCP Plan was followed.	Date: 09/16/2006