HACCP Step 1 – Lake sturgeon culture activities and stocking

Activity Description	
Facility: Genoa National Fish Hatchery	**Site: Genoa National Fish Hatchery**
Project Coordinator: Roger Gordon **Site Manager: Doug Aloisi** **Address: S 5689 State Hwy 35** **Genoa, WI 54632** **Phone: 608-689-2605**	**Activity: Collect/receive eggs from 3 different sources of lake sturgeon, culture and distribute for restoration activities**

Project Description **i.e. Who; What; Where; When; How; Why**
Genoa National Fish Hatchery receives eggs from wild lake sturgeon broodstock for rearing to further restoration efforts in the Midwest. Genoa provides 20-30,000 8 inch lake sturgeon annually to federal, state and tribal conservation agencies to meet restoration stocking goals.

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: Walleye *sander vitreum* **Fathead minnow**
Invertebrates:
Plants:
Other Biologics (e.g. disease, pathogen, parasite): **Lake sturgeon iridovirus** **Infectious Pancreatic Necrosis** **Furunculosis *Aeromonas salmonicida*** **Enteric Redmouth Disease *Yersinia ruckeri*** **Bacterial Kidney Disease *Renibacterium salmoninarum*** **Other Assorted parasites/pathogens commonly found in cultured salmonids.**
Others (e.g. construction materials, etc.):

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)

Task 1	**Receive eggs from other culture facilities/wild sources**
⇓	
Task 2	**Fry moved to rearing tanks in culture building.**
⇓	
Task 3	**Fingerlings are moved to raceways supplied with pond water supply.**
⇓	
Task 4	**Inventory fish and place in distribution truck.**
⇓	
Task 5	**Distribute fish**
⇓	
Task 6	
⇓	
Task 7	
⇓	
Task 8	
⇓	
Task 9	
⇓	
Task 10	

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 1 **Receive eggs from other culture facilities/wild sources**	**Vertebrates**	**no**	**Not possible**		**No**
	Invertebrates	**no**	**Not possible**		**No**
	Plants	**no**	**Not possible**		**No**
	Others	**yes**	**Fish diseases inherent in the wild populations of fish in the basin.**	**Parents tested for disease and quarantined until disease clearance occurs. Eggs disinfected before put down at hatchery. River water will not be used to transport eggs to station.**	**Yes**
Task 2 **Fry moved to rearing tanks in culture building**	**Vertebrates**	**no**	**Fry are hatched on well water, with no ANS present**	**n/a**	**no**
	Invertebrates	**no**	**See above**	**n/a**	**no**
	Plants	**no**	**See above**	**n/a**	**no**
	Others	**no**	**No added risk at this stage**	**n/a**	**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)
Task # 3 **Fingerlings are moved to raceways supplied with pondwater supply**	**Vertebrates**	**no**	**Nuisance species of fish may be inadvertently added through pondwater source**	**Rearing units will be disinfected between fish lots to reduce cross contamination**	**no**
	Invertebrates	**no**	**“**	**n/a**	**no**
	Plants	**no**	**No plant ANS species on site**	**n/a**	**no**
	Others	**no**	**BMP’s preclude added risk at this stage**	**Rearing units disinfected between fish lots.**	**yes**
Task # 4 **Inventory fish and place in distribution truck.**	**Vertebrates**	**yes**		**Use care/large mesh nets to reduce potential for cross contamination of smaller sized ANS**	**yes**
	Invertebrates	**no**	**Gastropods in rearing pondwater source**	**Reduce transfer of snails through careful harvesting**	**yes**
	Plants	**no**	**No plant ANS species on site**		**no**
	Others	**yes**	**Fish may carry disease contracted through parents/hatchery rearing**	**Lots will be disease tested before stocking Trucks will be disinfected between fish lots/trips**	**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 # 5 **Distribute fish**	**Vertebrates**	**yes**	**ANS can be harvested that have been inadvertently introduced to the pond through water systems//immigrations**	**Use care/large mesh nets to reduce potential for cross contamination of smaller sized ANS**	**yes**
	Invertebrates	**yes**	**Snails inherent in pondwater system can be transferred with fish during harvest**	**Reduce transfer of snails through careful harvesting**	**yes**
	Plants	**no**	**n/a**	**Milfoil not currently on hatchery grounds**	**no**
	Others	**no**	**n/a**	**No disease prevention/control measures available at this point**	**no**

HACCP Plan Form

(all CCP's or "yes's" from column 6 of HACCP Step 4 – Hazard Analysis Worksheet)

			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)
Receive eggs from other culture facilities/wild sources	Other	Virus can not be disinfected topically with iodophor	Reduce Disease Incidence	Iodophor disinfection Health cert.	Every egg shipment	Staff	Production supervisor	Records in daily capture log book
Fingerlings are moved to raceways supplied with pondwater supply	Vertebrates/Other	Time constraints	Reduce contamination	Rearing Unit disinfection	When fish are split	Staff	Production supervisor	
Inventory fish and place in distribution truck	All		Sort out ANS Disease testing	Large mesh net Fish health certification	Harvest	Staff	Production Supervisor	
Fill trucks and distribute fish	Other		Reduce pathogen spread	Disinfecting trucks and equipment	Between populations/trips	Staff	Production supervisor	

	Activity:
Address:	
Signature: HACCP Plan was followed.	Date: