

HACCP Step 1 – Activity Description

Activity Description	
Facility: Pvt. John Allen National Fish Hatchery	Site: Pvt. John Allen NFH
Project Coordinator: Richard Campbell	Activity: Lake Sturgeon Production
Site Manager: Richard Campbell	
Address: 111 Elizabeth Street Tupelo Mississippi, 38802	
Phone: 662/842-1341	

HACCP Step 2 – Identify Potential Hazards

Project Description i.e. Who; What; Where; When; How; Why
<p>Lake sturgeon stocking commitments are determined by guidelines set forth by the Lake Sturgeon Fisheries Management Plan for the Tennessee River. The project involves a host of partners that share a mutual goal of restoring this species back into its historic ranges within the State of Tennessee. Lake sturgeon fry are received at this facility in early June from the Warm Springs NFH in Warm Springs GA. Fry are stocked into intensive culture units and reared in these units until stocking. Stockings occur bi annually. Fish in excess of five inches by August 1 are stocked in early August. All remaining fish are stocked in the Month of November.</p>

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

Hazards: Species Which May Potentially Be Moved/Introduced

Vertebrates:
None

Invertebrates:
None

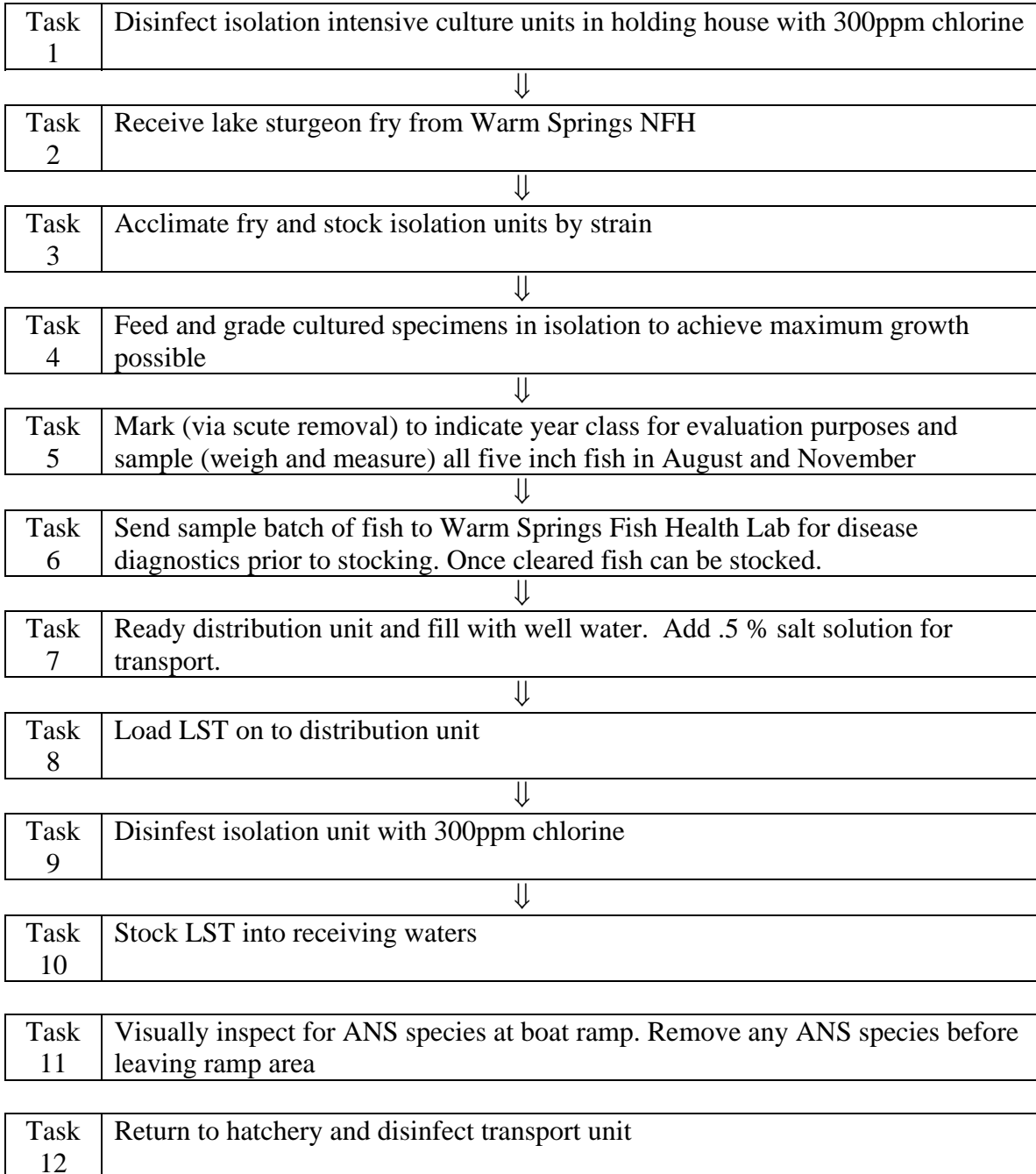
Plants:
None

Other Biologics (e.g. disease, pathogen, parasite):
Protozoans, fungus, trichodina, costia,

Others (e.g. construction materials, etc.):
None

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)
Task 1 Disinfect isolation intensive culture units in holding house with 300ppm chlorine	Vertebrates	NO	No aquatic species found in ground source well water	N/A	NO
	Invertebrates	NO	“	N/A	NO
	Plants	NO	“	N/A	NO
	Others	NO	“	N/A	NO
Task 2 Receive lake sturgeon fry from Warm Springs NFH	Vertebrates	NO	No verts introduced at this point	N/A	NO
	Invertebrates	NO	No inverts introduced at this point	N/A	NO
	Plants	NO	No nuisance vegetation introduced at this point	N/A	NO

	Others Fungus, bacteria, protozoans parasites	YES	Fish could develop disease due to handling	Periodic health exams and treatment is necessary	NO
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Hazard Analysis Worksheet (continued)

Task 3 Acclimate fry and stock isolation units by strain	Vertebrates	NO	Isolation units are filled with well water	N/A	NO
	Invertebrates	NO	Isolation units are filled with well water	N/A	NO
	Plants	NO	Isolation units are filled with well water	N/A	NO
	Others Fungus, bacteria, protozoans parasites	YES	Fish could develop disease due to handling	Periodic health exams and treatment is necessary	NO

Task 4 Feed and grade cultured specimens in isolation to achieve maximum growth possible	Vertebrates	NO	Isolation units are filled with well water	N/A	NO
	Invertebrates	NO	Isolation units are filled with well water	N/A	NO

	Plants	NO	Isolation units are filled with well water	N/A	NO
	Others Fungus, bacteria, protozoans parasites	YES	Fish could develop disease due to handling	Periodic health exams and treatment is necessary	NO

For additional pa **Hazard Analysis Worksheet (continued)**

Task 5 Mark (via scute removal) to indicate year class for evaluation purposes and sample (weigh and measure) all five inch fish in August and November	Vertebrates	NO	Isolation units are filled with well water	N/A	NO
	Invertebrates	NO	Isolation units are filled with well water	N/A	NO
	Plants	NO	Isolation units are filled with well water	N/A	NO
	Others Fungus, bacteria, protozoans parasites	NO	Fish could develop disease due to handling	Periodic health exams and treatment is necessary	NO

Task 6 Send sample batch	Vertebrates	NO	Isolation units are filled with well water	N/A	NO
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of fish to Warm Springs Fish Health Lab for disease diagnostics prior to stocking. Once cleared, fish can be stocked	Invertebrates	NO	Isolation units are filled with well water	N/A	NO
	Plants	NO	Isolation units are filled with well water	N/A	NO
	Others Fungus, bacteria, protozoans parasites		Fish could develop disease due to handling	Treatment of entire lot if necessary	YES

Task 7 Ready distribution unit and fill with well water. Add .5 % salt solution for transport	Vertebrates	NO	Isolation units are filled with well water	N/A	NO
	Invertebrates	NO	Isolation units are filled with well water	N/A	NO
	Plants	NO	Isolation units are filled with well water	N/A	NO
	Others	NO	Isolation units are filled with well water	N/A	NO

Task 8 Load LST on to distribution unit	Vertebrates	NO	No verts. introduced in fill water or during loading	N/A	NO
	Invertebrates	NO	No inverts. introduced in well water or during loading	N/A	NO

	Plants	NO	No plants introduced during fill or loading	N/A	NO
	Others	NO	No pathogens present in fill water	N/A	NO

Task 9 Disinfect isolation unit with 300ppm chlorine	Vertebrates Undesirable fish species	NO	No verts present in well water or isolation units	N/A	NO
	Invertebrates Crawfish	NO	No inverts present in well water or isolation units	N/A	NO
	Plants Pithophora, Chara	NO	No plants present in well water or isolation units	N/A	NO
	Others Trichodina, Costia	YES	Possible hazard reduced to acceptable level in previous steps	N/A	NO

Task 10 Stock LST into receiving waters	Vertebrates	NO	Hazard reduced to acceptable level in previous steps	N/A	NO
	Invertebrates	NO	Hazard reduced to acceptable level in previous steps	N/A	NO
	Plants	NO	Hazard reduced to acceptable level in previous steps	N/A	NO

	Others	NO	Hazard reduced to acceptable level in previous steps	N/A	NO
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Task 11 Visually inspect for ANS species at boat ramp. Remove any ANS species before leaving ramp area	Vertebrates Undesirable fish species,	NO	Possible entry of non target species during acclimation	Visually inspect tanks, triple rinse and drain completely	NO
	Invertebrates Zebra mussels, crawfish	NO	Possible entry of non target species during acclimation	Visually inspect tanks, triple rinse and drain completely	NO
	Plants Hydrilla, nitella, primrose	NO	Possible entry of non target species during acclimation	Visually inspect tanks, triple rinse and drain completely	NO
	Others Bacteria, fungus, protozoans,	NO	Possible entry of non target species during acclimation	Visually inspect tanks, triple rinse and drain completely	NO

Task 12 Return to hatchery and disinfect transport unit	Vertebrates	NO	Hazard reduced to acceptable level in previous steps	N/A	NO
	Invertebrates	NO	Hazard reduced to acceptable level in previous steps	N/A	NO
	Plants	NO	Hazard reduced to acceptable level in previous steps	N/A	NO
	Others Bacteria, fungus, protozoans	YES	Minimal chance of pathogen existence from stocking site	Disinfect with 300ppm chlorine	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		
Task 6 Send sample batch of fish to Warm Springs Fish Health Lab for disease diagnostics prior to stocking. Once cleared, fish can be stocked.	Bacteria, fungus, parasites and virus	Disease diagnostics performed by hatchery personnel and fish health biologists at WSRFC	Fish Health	Health screenings	Prior to stocking or transfer	Hatchery personnel and fish health biologists	Treat as deemed necessary	Document in hatchery records
Task 12 Return to hatchery and disinfect transport unit	Bacteria, fungus, parasites and virus	Disinfect with 300 ppm chlorine solution at hatchery	Transport unit disinfection	Visually at stocking site and on return to hatchery	Trip x Trip	All hatchery personnel that deliver fish	No further action needed	
Facility: Pvt. John Allen National Fish Hatchery					Activity: Lake Sturgeon Production			
Address: 111 Elizabeth Street, Tupelo MS 38802								
Signature:					Date:			

HACCP Plan was followed.	
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