

HACCP Step 1 – Activity Description

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

HACCP Step 2 – Identify Potential Hazards

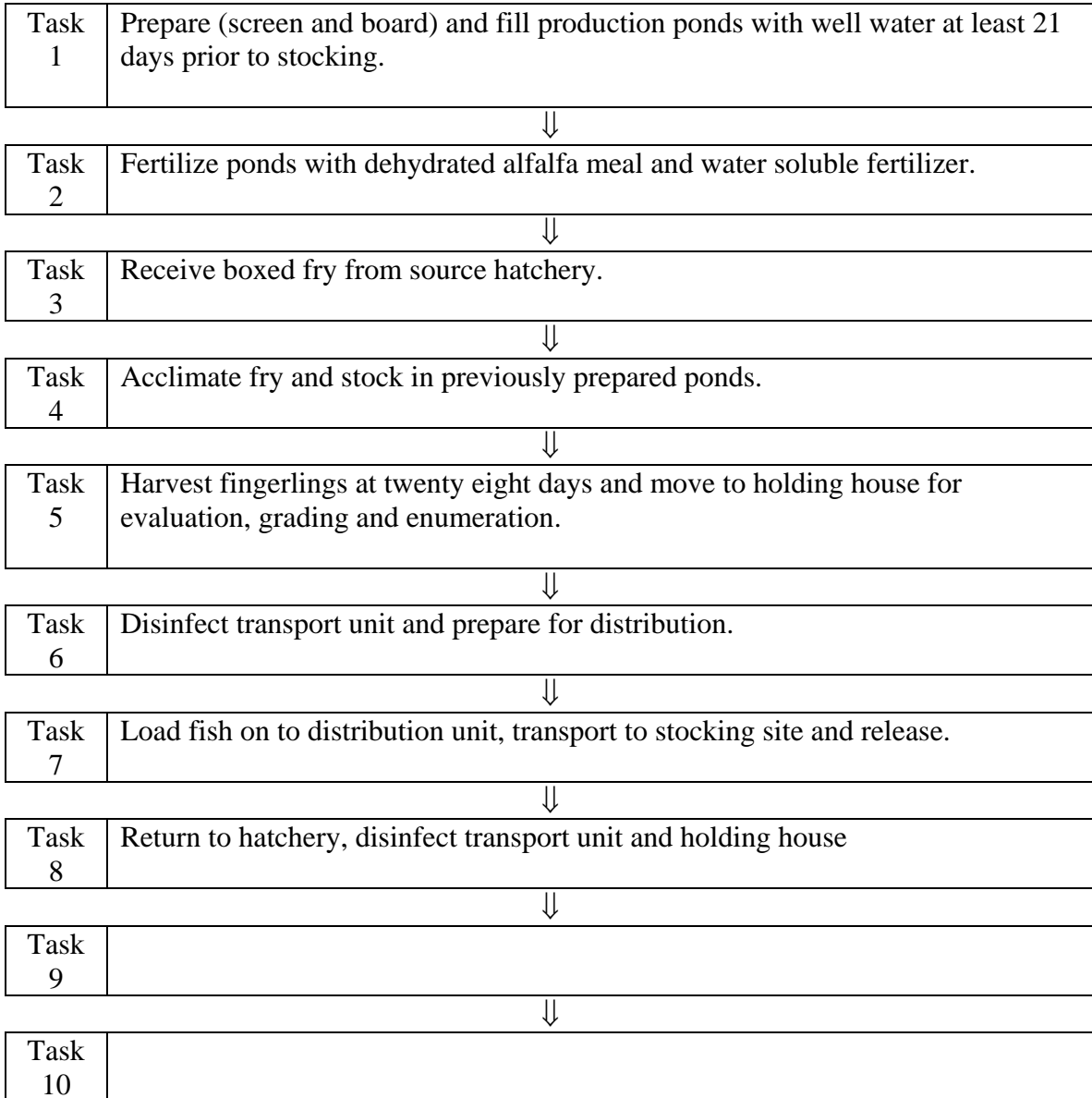
Project Description i.e. Who; What; Where; When; How; Why
<p>Largemouth bass production is determined at either, State Game or Fish annual meetings or by fishery resource managers working with the Management Assistance Offices of the US Fish & Wildlife Service. Requests are submitted to the Fishery Program Supervisors in the Atlanta Regional Office or to the Hatchery Manager. Request are then prioritized and fulfilled as space and budget allows. Priority stockings for largemouth bass are mainly to meet recreational fishing objectives on FWS and Tribal lands. This facility now works in partnership with the Natchitoches NFH in securing needed LMB fry for all production programs. Brood largemouth bass are maintained at the Natchitoches NFH and spawned at the Booker Fowler State Fish Hatchery in Louisiana. Personnel from the Pvt. John Allen NFH pick up 5 day old fry from the Booker Fowler SFH and transport them to this facility boxed at twenty thousand to the box. Fry are immediately released in to designated culture ponds at a rate of 65k/acre. Harvest and distribution takes place in 26 to 28 days post fry stocking. Average lengths of fish at this time are 1.75 inches. Harvested fish are brought into the holding house for health inspections and enumeration. LMB fingerlings are loaded on disinfected transport units and delivered to their predetermined stocking locations.</p>

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

Hazards: Species Which May Potentially Be Moved/Introduced
Vertebrates: Non target fish species: mosquitofish
Invertebrates: Common miscellaneous aquatic insects, red swamp crayfish and fairy shrimp
Plants: Algae (pithophora), water primrose, chara, nitella and brushy pondweed
Other Biologics (e.g. disease, pathogen, parasite): Common parasites found on warmwater species: 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 Prepare (screen and board) and fill production ponds with well water at least 21 days prior to stocking.	Vertebrates	NO	No undesirable 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 Fertilize ponds with dehydrated alfalfa meal and water soluble fertilizer.	Vertebrates	NO	Both inorganic and organic fertilizers are cleaned when packaged	N/A	NO
	Invertebrates	NO		N/A	NO
	Plants	NO		N/A	NO
	Others	NO		N/A	NO

Hazard Analysis Worksheet (continued)

Task 3 Receive boxed fry from source hatchery.	Vertebrates	NO	All received lots are inspected by hatchery of origin	N/A	NO
	Invertebrates	NO		N/A	NO
	Plants	NO		N/A	NO
	Others	NO		N/A	NO
Task 4 Acclimate fry and stock in previously prepared ponds.	Vertebrates	NO	Ponds filled with ground source well water	N/A	NO
	Invertebrates	NO	“	N/A	NO
	Plants	NO	“	N/A	NO
	Others	NO	“	N/A	NO
Task 5 Harvest fingerlings at twenty eight days and move to holding house for evaluation, grading and enumeration.	Vertebrates Sunfish, mosquitofish, fathead minnows	YES	Non target species could have been introduced during growout	Visually inspect and remove all undesirables at pond and in holding house	YES
	Invertebrates Red crawfish, snails	YES	“	“	YES

	Plants Water primrose, pithophora, chara, nitella, brushy pondweed	YES	Undesirable vegetation is present during this point of the process	“	YES
	Others Common external parasites: trichodina, costia	YES	Warmwater species always have the risk of carrying external parasites	Periodic prophylactic treatment of 2ppm KMNO4, fish health inspections performed prior to harvest, fish examination at time of harvest	YES
Task 6 Disinfect transport unit and prepare for distribution.	Vertebrates	NO	Non present during this phase of this process	N/A	NO
	Invertebrates	NO	“	N/A	NO
	Plants	YES	Undesirable plant species could be present at this point	Visually inspect and remove any plant species found	YES
	Others	YES	Common parasites may or may not exist at this point	Distribution unit disinfected with full concentrate chlorine and left to dry for no less than 30 minutes prior to rinse.	YES

Task 7 Load fish on to distribution unit, transport to stocking site and release.	Vertebrates	NO	Cleared at Task 5	Ground source well water used in filling transport tanks	NO
	Invertebrates	“	“	“	“
	Plants	“	“	“	“
	Others	“	“	“	“
Task 8 Return to hatchery, disinfect transport unit and holding house	Vertebrates Undesirable fish species (all)	YES, controlled at this point	Screen on pump pick up eliminates the chance of undesirable fish species transfer	N/A	NO
	Invertebrates Zebra mussels, crawfish	YES	Possible entry during acclimation	Visually inspect, triple rinse and drain at stocking site. Disinfect at hatchery with 300ppm chlorine solution and air dry.	YES
	Plants Water milfoil, hydrilla, water primrose, naiads	YES	Possible entry during acclimation	Visually inspect, triple rinse and drain at stocking site. Disinfect at hatchery with 300ppm chlorine solution and air dry.	YES

	Others Bacteria, protozoans, parasites	YES	Possible entry during acclimation	Visually inspect, triple rinse and drain at stocking site. Disinfect at hatchery with 300ppm chlorine solution and air dry.	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 5 Harvest fingerlings at twenty eight days and move to holding house for evaluation, grading and enumeration.	Non target fish species, invertebrates, plants and possibly external parasites	High flows in holding tanks push most nuisance species to the screen where they can be removed. External parasites are controlled with salt and copper sulfate treatments	Fish are hand sorted, chemical treatment applied as necessary	Manual inspection	During harvest, during grading and spot check for consistency during truck loading	Hatchery personnel	All species at this facility undergo Warm Water Fish Health Inspections performed by the Warm Springs Fish Health Lab before stocking.	
Task 6 Disinfect transport unit and prepare for	Certain external parasites	Visual inspection and removal for undesirable	Manual removal of vegetation.	Visual inspection and precautionary	Routine as needed	Biological Technician and	No further action needed	

distribution.	pathogens and nuisance vegetation species could reside in damp areas of transport unit. Undesirable plant species could exist on tanks and trailer	plants/vegetation. Standard decontamination process for other undesirables.	Full strength application of chlorine.	disinfection		Maintenance Worker		
Task 8 Return to hatchery, disinfect transport unit and holding house	Certain external parasites pathogens and nuisance vegetation species could reside in damp areas of transport unit. Undesirable plant species could exist on tanks and trailer	Visual inspection and removal for undesirable plants/vegetation. Standard decontamination process for other undesirables	Manual removal of vegetation. Full strength application of chlorine.	Visual inspection and precautionary disinfection	Routine as needed	All hatchery personnel	No further action needed	
Facility: Pvt. John Allen National Fish Hatchery					Activity: Largemouth Bass Production and Distribution			
Address: 111 Elizabeth Street, Tupelo MS 38802								
Signature:					Date:			

HACCP Plan was followed.	
---------------------------------	--