

HACCP Step 1 – Activity Description

Activity Description	
Facility: Pvt. John Allen National Fish Hatchery	Site: Pvt. John Allen NFH
Project Coordinator: Richard Campbell	Activity: Sunfish 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>Bluegill and redear sunfish are produced annually for both forage and stocking of waters on NWRs and Tribal lands. Brood fish are collected from holding ponds and stocked into rearing ponds in mid May. Progeny are harvested from these ponds and stocked into receiving waters by mid November.</p>

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

Hazards: Species Which May Potentially Be Moved/Introduced

Vertebrates:

mosquitofish, tadpoles, green tree frogs, turtles, bullfrogs

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):

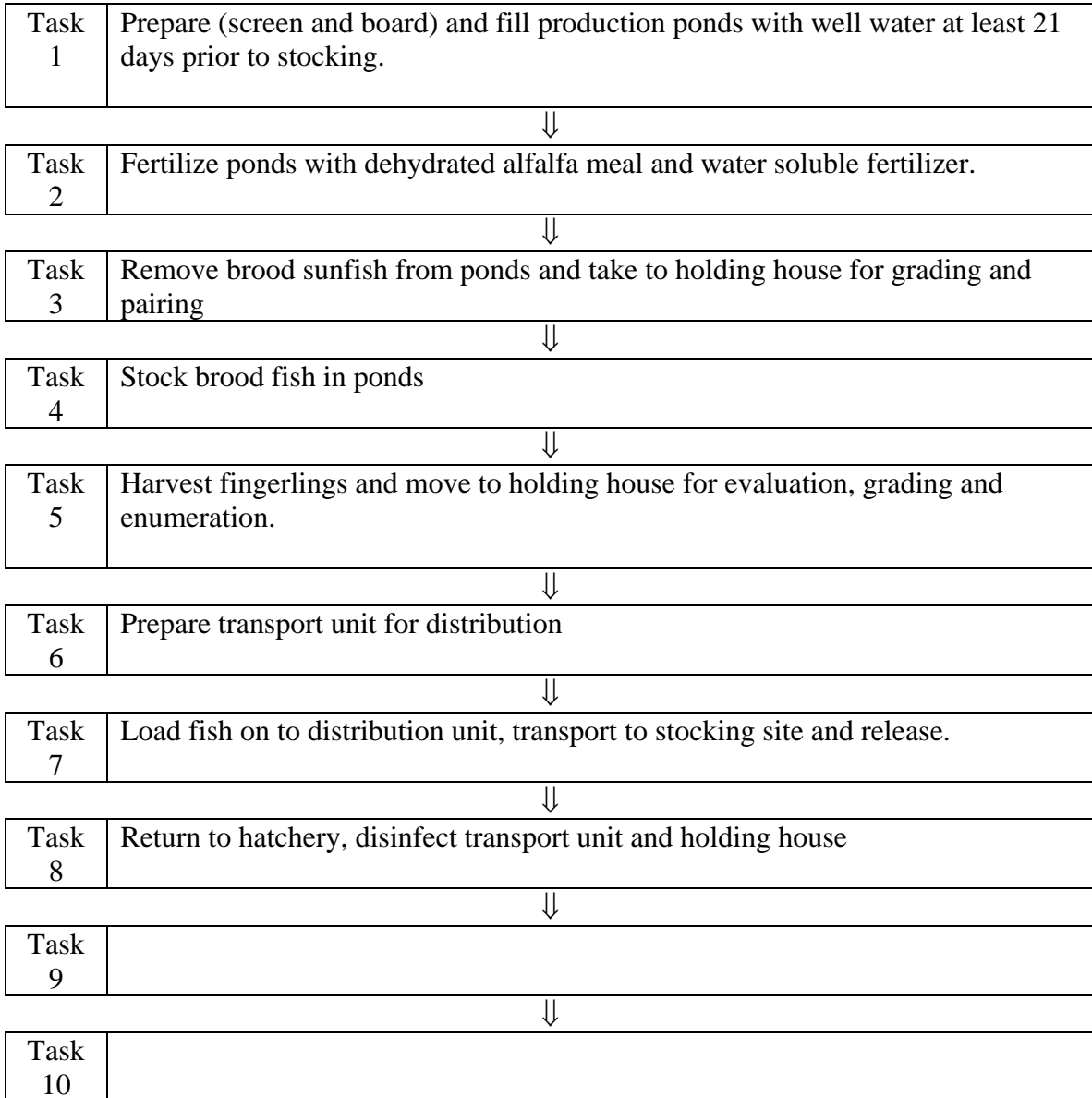
Common parasites found on warmwater species: Trichodina, Costia,

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

Task 3 Remove brood sunfish from ponds and take to holding house for grading and pairing	Vertebrates Turtles, tadpoles, mosquito fish, other undesirable fish species	YES	Undesirable fish species occur in holding ponds	Visual inspection of seine and removal of undesirable species	NO
	Invertebrates Crawfish, various aquatic insects	YES	Undesirable invertebrates occur in holding ponds	Visual inspection of seine and removal of undesirable species	NO
	Plants Pithophora, chara, nitella	YES	Undesirable vegetation occurs in holding ponds	Visual inspection of seine and removal of undesirable species	NO
	Others Protozoans, bacteria, fungus	YES	Bacterial infections and infestation of external parasites can occur in pond held brood stocks	Health exams and visual inspections. Use only disease free fish for brood stock	YES
Task 4 Stock brood fish in ponds	Vertebrates	NO	Hazards controlled at previous level	N/A	NO
	Invertebrates	NO	Hazards controlled at previous level	N/A	NO
	Plants	NO	Hazards controlled at previous level	N/A	NO
	Others	NO	Hazards controlled at previous level	N/A	NO

Task 5 Harvest fingerlings and move to holding house for evaluation, grading and enumeration.	Vertebrates Sunfish, mosquitofish, fathead minnows, green tree frogs, bullfrog tadpoles	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	Non target species could have been introduced during growout	Visually inspect and remove all undesirables at pond and in holding house	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 Prepare transport unit for distribution	Vertebrates	NO	N/A	N/A	NO
	Invertebrates	NO	N/A	N/A	NO
	Plants	NO	N/A	N/A	NO
	Others	NO	N/A	N/A	NO

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	NO	Pump used for acclimation at site is screened to prevent undesirable fish entry	N/A	NO
	Invertebrates Zebra mussels	YES	Possible entry into transport system during acclimation	Decontaminate trailer and associated transport equipment with chlorine treatment	YES
	Plants Hydrilla, pithophora, naiads, water primrose, brushy pondweed, willows	YES	Possible contamination of trailer by nuisance vegetation species	Visually inspect and remove all vegetation at stocking site	YES

	Others	YES	Possible contamination of transport unit at stocking site during acclimation	Release all water and rinse transport unit at stocking site. Disinfect all equipment with 300ppmm solution of chlorine water upon return to hatchery	YES
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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 3 Remove brood sunfish from ponds and take to holding house for grading and pairing	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 during stocking	Hatchery personnel	All species at this facility undergo Warm Water Fish Health Inspections performed by the Warm Springs Fish Health Lab before stocking.	
Task 5 Harvest fingerlings 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 graded, chemical treatment applied as necessary	Manual inspection	During harvest, during grading and spot check while off loading	Hatchery personnel	All species at this facility undergo Warm Water Fish Health Inspections performed by the Warm Springs Fish Health Lab before stocking.	Healthy Fish Certificate

Task 8 Return to hatchery, disinfect transport unit and holding house	Certain external parasites 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	Biological Technician and Maintenance Worker	More thorough disinfection of transport unit	
Facility: Pvt. John Allen National Fish Hatchery					Activity: Sunfish Production and Distribution			
Address: 111 Elizabeth Street, Tupelo MS 38802								
Signature: HACCP Plan was followed.					Date:			