REVIEW COMMENTS

Contract Number:

DESIGN DOCUMENT TYPE			DOCUMENT	PROJECT	DATE
	DESIGN MEMO	CONCEPT	FINAL	ACC Plan Review	**Lewis River Acclimation Ponds**	6/8/11
X	PLANS & SPECS	PRELIMINARY				

REVIEWER					ACTION TAKEN ON COMMENT		
	NAME Eric Kinne	X	GENERAL		STRUCTURAL	**REVIEW CONFERENCE** (A = Comment accepted) (If not accepted explain)	**RESPONSE** (C = Correction made. List drawing or paragraph number whwere correction made) (If not corrected, explain)	**Reviewer Initials**
	Washington Department of Fish and Wildlife		CIVIL		HYDRAULIC			
	PHONE NUMBER 360-534-9338		MECHANICAL					
			ELECTRICAL					

ITEM NO.	DRAWING SHEET SPEC PARA	COMMENTS			
1	Muddy River	Need to include a backup water supply system on the Muddy Creek site in case the infiltration gallery fails		Short of building a second infiltration gallery, there is no feasible way to have a backup flow system. If the infiltration gallery were to clog it would most likely occur over the winter – not during rearing time. In that case, there would be an action to reopen the gallery before fish are placed in the pond.	
2	Clear Creek	Because fry will be present during the time of acclimation, the screen size at Clear Creek will need to conform with NOAA standards. We have concerns that a 3/32” vertical slot screen will work for this application and recommend the a self cleaning belt or rotating screen be used for the Clear Creek Intake.		A screen with 3/32” opening is specified for the manual system. The intake structure has been designed for installation of a drum screen if debris loadings are significant. There appears to be adequate sweeping flows to keep the screen clean enough to pass adequate water to the rearing space.	
3	Muddy River and Clear Creek	We are also concerned that the outlet screen at each of the sites will plug with debris and recommend that these be switch to belt or drum screens. The outlet screens slots could also be enlarged from 1/8” to ¼” to help with small debris		Outlet screens are designed with a ¼”x ½” slotted screen to allow greater outflow and to reduce clogging potential.	

REVIEW COMMENTS

Contract Number:

DESIGN DOCUMENT TYPE			DOCUMENT	PROJECT	DATE
	DESIGN MEMO	CONCEPT	FINAL	ACC Plan Review	**Lewis River Acclimation Ponds**	6/8/11
X	PLANS & SPECS	PRELIMINARY				

REVIEWER					ACTION TAKEN ON COMMENT		
	NAME Eric Kinne	X	GENERAL		STRUCTURAL	**REVIEW CONFERENCE** (A = Comment accepted) (If not accepted explain)	**RESPONSE** (C = Correction made. List drawing or paragraph number whwere correction made) (If not corrected, explain)	**Reviewer Initials**
	Washington Department of Fish and Wildlife		CIVIL		HYDRAULIC			
	PHONE NUMBER 360-534-9338		MECHANICAL					
			ELECTRICAL					

ITEM NO.	DRAWING SHEET SPEC PARA	COMMENTS			
4	Crab Creek	As we have mentioned before, we have concerns with the Crab Creek site design but also understand the need to provide acclimation in the mainstem Lewis. We are concerned that the structure will not be able to contain the fish. The design calls for a net to cover the outlet and we are concerned that this may get tampered with. Flows levels are not provided for the Crab Creek site design and hyporheic flows are being counted on to provide the necessary flows for the Crab Creek site. We are concerned with the amount of organic material that will be present during this fall timeframe and may cause issues with inflow.		A range of flows for Crab Creek that will enter the pond are included in the 90% Operations-Construction-Issues Technical Memorandum. Efforts will be made to disguise the net structure to prevent tampering. Flows will be estimated upon construction completion and fish numbers will be adjusted if the available flow is less than expected.	
5	All Sites	Predation at all three is a concern, I understand the idea of predator training and avoidance but we have to remember that these fish will be in confined areas. Crab Creek design could have the highest predation concern of all three sites.		Logs, boulders and rootwads are incorporated into Muddy River and Clear Creek to aid in predator avoidance. Root wads have been added to the Crab Creek pond along with larger substrate that will allow escape opportunities.	
6	All Sites	We would like to see these facilities operated for as long as possible to work the bugs out before fish are placed into them.		We intend to verify adequate flows and depth before fish are placed.	