Q. [Account W01 - Water Regulating Structures] - Please provide a detailed narrative identifying specifically what the fish compensation structure placed in service in 2003 represents as set forth in Attachment 1 to CA-NLH-149, including all meaningful and significant factors. The response should also provide a detailed categorization of the investment at this location.

A. The Fish Habitat Compensation Facility (FHCF) provides 45,000 m^2 of spawning and rearing habitat for ouananiche and brook trout that have been displaced as a result of water diversion. The FHCF comprises of:

- 4.5 m wide by 400 m long diversion of a small stream around the tailrace canal designed to provide habitat for brook trout;
- New 15 m wide by 1600 m long channel designed to provide habitat for ouananiche and passage for fish to migrate upstream of Meelpaeg Reservoir;
- Two 4.5 m wide by 1300 m long side channels off the main channel designed to provide habitat for brook trout; and
- Delta at the outlet of the tailrace canal designed with attention to ouananiche habitat characteristics.

The channels are designed to provide spawning and rearing habitat and have instream features appropriate for the associated fish species, including spawning gravel, runs, riffles, pools, boulder clusters, bank overhangs, etc. The flows in the main channel and side channels are controlled at an inlet structure. The water level at the outlet of the main channel into Meelpaeg Reservoir, adjacent to the tailrace delta, is controlled with concrete weirs in an outlet structure. Habitat in the tailrace delta includes spawning gravel, cobble and boulder features. See CA-NLH-233, Attachment 1 for a detailed categorization of the investment at this location.

Itemized Listing of Investment in Fish Compensation Structure

Year	Description Of Work	Pay Item Cost To-Date	JDE Location	JDE Asset Number	Service Life
2003	Fish Habitat Compensation Facility Clearing	25,000	GCLPLANT	99041936	600
	Fish Habitat Compensation Facility Stripping	100,000			
	Fish Habitat Compensation Facility OM Excavation	700,000			
	Fish Habitat Compensation Facility Rock Excavation	500,000			
	Fish Habitat Compensation Facility Dykes	1,100,000			
	Fish Habitat Compensation Facility Weirs	1,400,000			
	Fish Habitat Compensation Facility Cofferdams and Unwatering	15,000			
	Excavate Extra Rock in FHCF	545,000			
	Interim Payment for FHCF Frustration Cost	200,000			
	FHCF Access Road	191,500			
	Final Payment FHCF Frustration Cost	520,028			
	Excavate Extra Rock in FHCF	-27,119			
	Interim Payment for Changes to FHCF Dykes	300,000			
	Cut Brush for Revised FHCF Channel and Dyke	6,555			
	Preliminary Design on FHCF Fish Ladder	66,384			
	Interim Payment for Changes to FHCF Dykes #2	210,000			
	FHCF Dykes Extra Engineering	58,631			
	FHCF Survey & Test Pits	19,962			
	Resurvey for FHCF Dykes	1,397			
	Final settlement - FHCF frustration	119,522			
	Provide Assistance for Fish Lights	2,071			
	Remove Debris from FHCF Spillway	1,137			
	Direct amount to Fish Facility - Acc 83686	230,234			
	75% of acc 83681 to fish $314,578	235,934			
	90 % of acc 83689 to fish $254,246	228,821			
	Construct Road around RR Pond	500,000			
	Construct Road around RR Pond Additional	15,000			
	Clear Brush around RR Pond	199,315			
	Rework & Reshape G2 Channel	214,336			
	Extra work at RR pond spillway	26,206			
	Misc extra work	11,409			
	Claim	150,752			
	Contract allocation Cost	680,500			
	Overhead allocation Cost	3,726,244			
2004	McNamara	78,754			
	E& M Consultant	85,049			
	Environment Direct	241,596			
	Allocation of Overhead	270,344			
2005	Fish Compensation Structure - Granite - Extra Cost	315,425			
2006	Fish Compensation Structure - Granite - Extra Cost	41,399			
	TOTAL Granite Canal - Fish Compensation Structure	**13,306,387**			