Cultural Resources Presentation For the Grant Lake Hydroelectric Project

Grant Lake Hydroelectric Project (FERC No. 13212) Natural Resource Studies Meeting

December 12, 2012 – Anchorage, AK





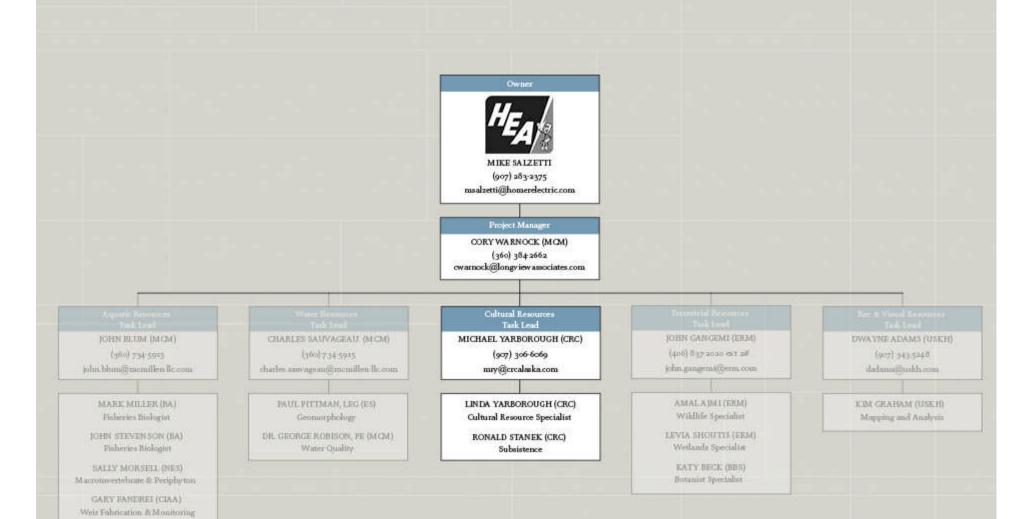






In Association with





Key Team Members: McMillen (MCM), BioAnalysts (BA), OASIS Environmental, ERM Company (ERM), Cultural Resource Consultants (CRC)
USKH (USKH), Elemental Solutions (ES), Northern Ecological Services (NES), Bock Botanical Services (BBS)

MORT MOMILLEN, PE (MCM)

Weir Design Load

Cultural Resources - Area Studies

- USFS
 - Literature Review and Field Studies
- CH2M Hill (1980)
 - Literature Review
- AEIDC (1983)
 - Literature Review and Field Study
- EBASCO (1984)
 - Literature Review

Cultural Resources - What has been done to date...

- HDR Alaska, Inc. 2010
 - Cultural Resources Draft Study Plan
 - Literature Review, Draft Area of Potential Effects (APE), and Draft Methodology
- HDR Alaska, Inc. 2010
 - Initiation of Section 106 Consultation
 - June 24, 2010
 - APE and Methodology
 - Traditional Cultural Properties
 - Iditarod National Historic Trail

Cultural Resources - Tasks Remaining

- Re-initiate Section 106 Consultation
 - Initial consultation meeting in June 2010
 - Define the APE
- Iditarod National Historic Trail

Cultural Resources - Tasks Remaining

- Historical and Archaeological Field Study
 - Survey of the APE
 - Verify known site locations
 - Utilize U.S. Forest Service probability model
 - Document newly discovered sites
- Final Report
- Historic Properties Management Plan (HPMP)

Cultural Resources Study Area



Cultural Resources - 2013 Schedule

- Early 2013
 - Literature review
 - Complete probability model
 - Continue Section 106 consultation
 - Reach agreement on APE
- Summer 2013
 - Historic and Archaeological Field Study

Cultural Resources - 2013-2014 Schedule

- Fall 2013
 - Draft Study Report
 - Section 106 consultations on National Register
 Determinations of Eligibility and Effect
- Winter 2013/2014
 - Draft HPMP
- January 2014
 - Study Report

Cultural Resources – Stakeholder Comments

- Comments 118-132
- Study Plan: editing errors
 - Errors have been fixed
- Methodology: needs revision
 - Study methods will comply with current standards and practice and the study plan has been revised.

Cultural Resources - Stakeholder Comments

- APE: not large enough
 - Consultation will continue to define an appropriate APE.
- Post-project Impacts
 - Potential effects and proposed mitigation will be presented in the draft and final license applications.

Cultural Resources - Permitting

- U.S. Forest Service Lands
- State of Alaska Lands

Subsistence

- What is it?
 - The taking of fish, wildlife, or other wild resources for the sustenance of families, communities, and cultures.
 - Highest priority consumptive use of fish and wildlife.
 - Differs from commercial, sport, and personal use harvests.

Subsistence

- Defined under two regulatory systems:
 - State vs. Federal Lands
 - AS 16.05.258 (State of Alaska)
 - ANILCA (Federal Government)
- Kenai
 - By State law is a mostly "nonsubsistence area."
 - By Federal law is a mostly rural area.

Where do Subsistence Harvests and Uses Occur Relative to the Grant Lake Project?

- Project area lies within:
 - GMU-7
 - Cook Inlet Fisheries Management Area
- No prior research has been done by HEA contractors.

Subsistence - Area Studies

- Several Studies on the Kenai Peninsula
 - i.e., Reed 1984, Seitz et al. 1994, and Fall et al. 2000
- Studies near the Project Area
 - Moose Pass, Seward, Cooper Landing, and Hope (Davis, Fall, and Jennings 2003)
 - Hope, Cooper Landing, and Ninilchik (Fall et al. 2004)

Table 23. Estimated Harvest and Use of Fish, Game, and Plant Resources, Moose Pass, 2000

	Percentage of Households					Pounds Harvested _			Amount Harvested		95% Conf Limit (+/-)
Resource Name	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest
Irish Lord	0	0	0	0	0	0	0	0	0	0	0.00
Unknown Irish Lord	0	0	0	0	0	0	0	0	0	0	0.00
	0	1	1	0	0	1.49	0.01	0	2.99	0.02	114.20
Unknown Sculpin	1	0	0	1	0	1.49	0.01	0	2.99	0.02	0.00
Shark Unknown Shark		0	0	1	0	0	0	0	0	0	0.0
	0	0	0	0	0	0	0	0	0	0	0.0
Skates	0	-	_	1		_	_			0	0.0
Sole	1 1	0	0		0	0	0	0	0	0	
Unknown Sole	1 1	0	0	1	0	0	0	0	0	-	0.0
Wolffish	0	0	0	0	0	0	0	0	0	0	0.0
Char	28.3	27.3	23.2	6.1	3	782.76		1.95	559.11	3.78	36.0
Dolly Varden	18.2	18.2	14.1	4	1	372.54	2.52	0.93	266.1	1.8	40.7
Lake Trout	20.2	18.2	16.2	5.1	3	410.21	2.77	1.02	293.01	1.98	38.0
Grayling	9.1	10.1	8.1	2	4	61.74	0.42	0.15	88.2	0.6	50.8
Pike	3	1	1	3	0	44.85	0.3	0.11	14.95	0.1	114.2
Unknown Pike	3	1	1	3	0	44.85	0.3		14.95	0.1	114.2
Sturgeon	0	0	0	0	0	0	0		0	0	0.0
Unknown Sturgeon	0	0	0	0	0	0		100	0	0	0.0
Trout	38.4	34.3	30.3	10.1	4	650.9	4.4	1.62	464.93	3.14	22.4
Cutthroat Trout	0	0	0	0	0	0	0	0	0	0	0.0
Rainbow Trout	38.4	34.3	30.3	10.1	4	625.79	4.23	1.56	446.99	3.02	22.6
Steelhead	0	0	0	0	0	0	0	0	0	0	0.0
Unknown Trout	1	1	1	0	0	25.12	0.17	0.06	17.94	0.12	114.2
Whitefish	1	1	1	0	0	2.62	0.02	0.01	1.49	0.01	114.2
Unknown Whitefish	1	1	1	0	0	2.62	0.02	0.01	1.49	0.01	114.2
and Mammals	56.6	33.3	22.2	45.5	16.2	9854.41	66.58	24.5	330.38	2.23	74.3
Large Land Mammals	54.5	31.3	15.2	45.5	15.2	9767.7	66	24.29	61.29	0.41	38.2
Bison	0	0	0	0	0	0	0	0	0	0	0.0
Black Bear	17.2	14.1	6.1	11.1	6.1	520.24	3.52	1.29	8.97	0.06	45.4
Brown Bear	0	1	0	0	0	0	0	0	0	0	0.0
Caribou	10.1	1	1	9.1	3	1345.45	9.09	3.35	8.97	0.06	114.2
Deer	14.1	6.1	3	11.1	3	1227.05	8.29		28.4	0.19	68.2
Elk	1	0	0	1	0	0			0	0	0.0
Goat	5.1	3	2	107	3	216.77	1.46	0.54	2.99	0.02	80.3
Moose	41.4	28.3	8.1	36.4	9.1	6458.18			11.96	0.08	38.9
Dall Sheep	5.1	4	0.1	5.1	2	0			0	0.00	0.0
Small Land Mammals	10.1	14.1	10.1	1	2	86.71	0.59	0.22	269.09	1.82	89.8

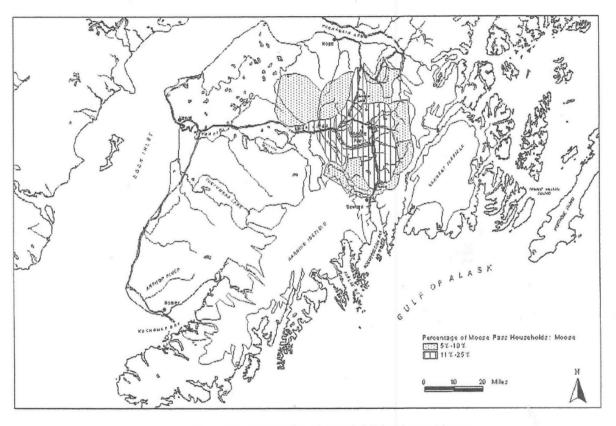


Figure 31. Moose Pass Household Use Areas, Moose Showing Percent of Total Households

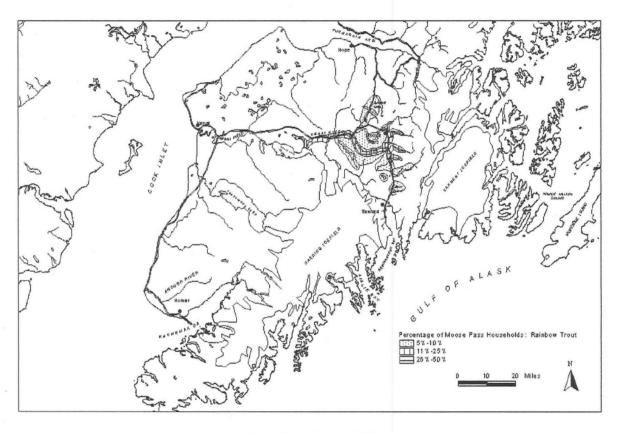


Figure 27. Moose Pass Household Use Areas, Rainbow Trout Showing Percent of Total Households

Subsistence - Tasks Remaining

- Integrated Approach to Information Gathering
- An update of recent harvest activity.
 - Consult agency harvest reports and records.
 - Sample participant households based on chain referrals
- An assessment of hunting and fishing regulation changes since the most recent studies.



Federal Subsistence Board News Release



Forest Service

For Immediate Release: August 9, 2012

Contact: Ruth D'Amico (907) 288-7706

Bull Moose Harvest Quota Established for Unit 7 Remainder

The Seward District Ranger, under authority delegated by the Federal Subsistence Board, has established a harvest quota of three (3) bull moose with spike or fork antlers for Unit 7 remainder (that portion of Unit 7 excluding the Kings Bay drainage) on the Kenai Peninsula. The quota is effective for the 2012 Federal subsistence moose season, which runs August 10-September 20, by Federal registration permit only. The season will be closed to the harvest of spike or fork antlered bull moose once the quota is met. The harvest of bull moose with 50-inch antlers, or with 3 or more brow tines on either antler, will still be allowed. Note that the Kings Bay drainage is entirely closed to the harvest of moose.

Recent surveys conducted by the Alaska Department of Fish and Game indicate a low number of bulls throughout the Kenai Peninsula including Unit 7 remainder. An adequate number of bulls is necessary to ensure timely breeding of cows and maximize productivity of the herd. The harvest quota has been established to improve the bull to cow ratio and improve the productivity of the herd, thereby providing long-term subsistence harvest opportunities.

Under Federal subsistence regulations, only residents of Hope and Cooper Landing are eligible to hunt moose in Unit 7 remainder. Residents of Hope and Cooper Landing can obtain permits by contacting Ruth D'Amico at 907-288-7706. Sealing of all harvested moose is required in order to track the number of bull moose taken.

For additional information, contact U.S. Forest Service Seward District Ranger Travis Moseley at (907) 288-7730.

Subsistence - Stakeholder Comments

- Comments 2, 5, and 6 refer to social and economic issues.
- Comment 7: "Community Identity, Subsistence and Environmental Justice"
 - A subsistence study will be done.

Subsistence - Permitting

No permits required

Subsistence - Schedule

- 2013
 - Literature Review and fieldwork
- January 2014
 - Report