

**KASIDAYA CREEK HYDROELECTRIC PROJECT**

**PROJECT NO. 11588**

**MONTHLY CONSTRUCTION REPORT**

**FOR**

**MARCH 2007**



**Alaska Power & Telephone Company  
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Skagway, AK 99840-0459  
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# KASIDAYA CREEK<sup>1</sup> HYDROELECTRIC PROJECT FERC PROJECT NO. 11588-AK

## MONTHLY CONSTRUCTION REPORT FOR THE MONTH OF FEBRUARY 2007

PREPARED April 14, 2007

The FERC authorized the start of construction for the Kasidaya Creek (formerly Otter Creek) Hydroelectric Project 3 miles south of Skagway, Alaska on April 5, 2006. Mobilization began April 11, 2006.

### 1. PROGRESS OF WORK

Due to heavy snowfall, high winds and negative temperatures, the crew at Kasidaya worked only about half of the first two weeks of March. There were a large quantity of work days cancelled due to weather, frequently preventing travel to the Project site. Due to the intense winter conditions during the first two weeks of March, the crew has only been able to haul pipe from Skagway, assist in finishing the Powerhouse and repair broken vehicles on site. Four groups of untreated logs were dug in at low tide into the beach on the north side of the jetty to act as guide dolphins to assist loading and unloading operations by the landing craft during high north winds and outgoing tides which were creating safety issues this winter.

#### Powerhouse Site

The roof was finished and the rolling door installed to complete construction of the powerhouse exterior. The powerhouse doors were installed and interior appurtenances' began installation, i.e. the penstock bifurcation to turbine, turbine housing, needles, etc.

#### Access Road

No construction of the access road has occurred due to the continued ice and snow cover.

### 2. STATUS OF CONSTRUCTION

**59% Complete**

The construction schedule is being revised to reflect the license amendment request, new road alignment and elimination of the tunnel. A new construction schedule that relates to the license amendment is attached.

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<sup>1</sup> Name change from Otter Creek Hydro was approved by FERC on June 26, 2006.

### **3. CONSTRUCTION DIFFICULTIES**

Normal equipment issues requiring repairs on site or in Skagway have occurred. Ice on the right-of-way has stopped construction of the road until weather conditions warm up. Some winter storms have also hampered access of the project during the month of March in what has been a particularly harsh winter. The labor force in February varied from 4 to 8 people employed full time.

### **4. CONTRACT STATUS**

**Completion N/A**

Construction surveying is being provided by Pacific Contract Co. ECM is a joint effort shared by David Hunz of H&H who also contracted Molly Covenor to be part of the ECM team. Other contracts will be negotiated as the project progresses. At this time there is only the ECM contract.

### **5. CRITICAL EVENTS & DATES**

Future critical events and dates are:

- March 6 submit revised Exhibits A, F-1 and F-2 to FERC.
- March 12 submit revised Erosion & Sedimentation Plans.
- March 30 submit revised road and penstock design to FERC Portland and USFS
- April 2 submit letter from SHPO stating no impacts to historic buildings
- April 9 submit letter from FS stating no Heritage or plant surveys need to be conducted
- April 20 begin 30 public notice for amendment if required (FERC)
- April permission to begin penstock at powerhouse so excavation and thrust blocks can be completed
- June 4 target date to have license amendment approved
- July 3 target date to begin road extension on new alignment

### **6. IMPOUNDMENT FILLING**

Not applicable at this time (Phase IV)

### **7. FOUNDATIONS**

Tailrace and powerhouse foundations are complete.

## **8. SOURCES OF MAJOR CONSTRUCTION MATERIALS**

Vendors are: Gilkes (Turbine/Generator/Lube Unit)  
Chief Buildings (Powerhouse structure)  
H&H Construction (Concrete)

## **9. MATERIALS TESTING AND RESULTS**

Concrete samples from each batch are being tested by R&M engineering of Juneau, AK. Test results are on file at the Skagway AP&T office. Concrete air entrainment testing has also been performed periodically.

## **10. INSTRUMENTATION**

The only gauging at this time is continuation of stage measurement at Kasidaya Creek mouth.

## **11. PHOTOGRAPHS**

Photographs in the Appendices show work on the powerhouse walls and interior appurtenances.

## **12. EROSION CONTROL / OTHER ENVIRO MEASURES**

No erosion was noted at any of the project activities. Soils encountered have been very sandy, mixed with boulders, or bedrock. The road and traveled parts of the staging area have been surfaced with rock to minimize erosion. This time of year the ground is frozen and covered with snow and ice. Weather conditions for March were generally cold with 3 cloudy or mildly wet days, 23 days of snow, and 5 days of sunshine or partial sunshine according to the Weather Underground website. The total precipitation for March was 0.00 inches. Snow does not appear to be recorded although the weather calendar indicates 23 days of snow. Average high temperature for the month was 29.6°F with a maximum of 41°F on March 7, 21, 23, and 30. The average low temperature for the month was 21.8°F with the lowest temperature of 1°F occurring on March 4. No turbidity measurements taken at this time because there is no activity near Kasidaya Creek. Soils dry out quickly due to good drainage from the sandy soils. A tiny stream north of the project is also being watched and has a hay bale placed in it just in case, but the water has remained clear and no sediment has been observed. Surface water has mostly been frozen and the ground, streams and creek covered with snow.

## Summary of ECM Weekly Reports for January:

### PROGRESS OF WORK

- Due to heavy snowfall, high winds and negative temperatures, the crew at Kasidaya has worked six days in the last two weeks. There have been a large quantity of work days cancelled due to weather since I was last out here. Prior to this, the stormy weather did not permit frequent travel to Kasidaya. I tried multiple times to get on site during this time, but work was either cancelled or cut short. The weather eventually improved, therefore March 10<sup>th</sup> was my first successful attempt.
- Due to intense winter conditions, the crew has only been able to haul pipe from Skagway, assist in finishing the Powerhouse and repair broken vehicles on site.
- Four groups of untreated logs were dug in at low tide into the beach on the north side of the jetty to act as guide dolphins to assist loading and unloading operations by the landing craft during high north winds and outgoing tides which were creating safety issues this winter.
- The Powerhouse structure has been completed. The roof was finished and the rolling door installed.

### EROSION CONTROL

- Majority of the site is still iced over.
- Due to freezing winter conditions, the threat of erosion on site is minimal and no work currently being done out at Kasidaya would cause erosion.

### HAZARDOUS SUBSTANCE

- The sheen that was seen under the blue work truck has been cleaned up. Due to recent snow fall it is harder to spot leaks, but there does not appear to be any other leaks on site.
- All hazardous substances are being held in appropriate containers.
- There are adequate numbers of hazardous substance cleanup supplies on site.
- Fire hazard remains low due to wet and freezing conditions.

### WILDLIFE OBSERVATIONS

- Surf Scooters, Seagulls, Harbor Seals, Sea lions and Crows are seen on and around the site.

### RECOMMENDATIONS

- No recommendations at this time.

## **13. OTHER ITEMS OF INTEREST**

There have been no reportable accidents or incidents during this reporting period.

### **APPENDICES**

SCHEDULE FOR CONSTRUCTION (being revised; will include next month)

PHOTOGRAPHS

# KASIDAYA CREEK HYDROELECTRIC PROJECT DESIGN AND CONSTRUCTION SCHEDULE

ID	Task Name	Start	Finish	2007							
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	<b>DESIGN (Phases ref Portland Review)</b>	Thu 12/1/05	Tue 6/26/07	▶							
10											
11	<b>PERMITTING</b>	Thu 12/22/05	Fri 8/10/07	▶							
24											
25	<b>INITIAL MOBILIZATION</b>	Tue 4/11/06	Thu 5/25/06								
32											
33	<b>MARINE ACCESS FACILITIES</b>	Sat 5/13/06	Thu 1/11/07	▶							
38											
39	<b>CONSTRUCTION ROAD</b>	Thu 4/13/06	Tue 10/16/07	▶							
50											
51	<b>POWERHOUSE STRUCTURE</b>	Thu 3/16/06	Thu 5/3/07	▶							
61											
62	<b>DIVERSION STRUCTURE</b>	Tue 10/2/07	Sat 5/3/08	▶							
69											
70	<b>PENSTOCK &amp; FINAL ROAD</b>	Mon 10/23/06	Thu 11/22/07	▶							
89											
90	<b>TAILRACE</b>	Wed 3/22/06	Thu 4/27/06								
93											
94	<b>POWERHOUSE EQUIPMENT PROCUREMENT</b>	Thu 7/1/04	Mon 4/14/08	▶							
99											
100	<b>POWERHOUSE EQUIPMENT INSTALL</b>	Wed 4/18/07	Thu 4/24/08	▶							
107											
108	<b>TESTING AND STARTUP</b>	Sat 5/3/08	Fri 5/30/08	▶							
113											
114	<b>FINAL CONSTR REPORT &amp; DEMOB</b>	Sat 5/17/08	Sat 6/7/08	▶							
117											
118	<b>FINAL O&amp;M REPORT</b>	Wed 6/4/08	Tue 6/10/08	◆							

Project: Final design & construction S Date: Mon 4/23/07	Task <span style="display: inline-block; width: 20px; height: 10px; background-color: #ccccff; border: 1px solid black;"></span>	Milestone <span style="display: inline-block; width: 10px; height: 10px; background-color: black; border: 1px solid black; border-radius: 50%;"></span>	Rolled Up Critical Task <span style="display: inline-block; width: 20px; height: 10px; background-color: #ffcccc; border: 1px solid black;"></span>	Split <span style="display: inline-block; width: 20px; height: 10px; border-top: 1px dashed black;"></span>	Group By Summary <span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>
	Critical Task <span style="display: inline-block; width: 20px; height: 10px; background-color: #ffcccc; border: 1px solid black;"></span>	Summary <span style="display: inline-block; width: 20px; height: 10px; background-color: #ccccff; border: 1px solid black;"></span>	Rolled Up Milestone <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%;"></span>	External Tasks <span style="display: inline-block; width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black;"></span>	Deadline <span style="display: inline-block; width: 20px; height: 10px; border-bottom: 1px solid black;"></span>
	Progress <span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>	Rolled Up Task <span style="display: inline-block; width: 20px; height: 10px; background-color: #ccccff; border: 1px solid black;"></span>	Rolled Up Progress <span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>	Project Summary <span style="display: inline-block; width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black;"></span>	<span style="color: green; font-size: 1.2em;">↓</span>

Photo 1



**HDPE PIPE STORED IN SKAGWAY  
NOTE SNOW OR ICE ON PIPE**

Photo 2



**HDPE PIPE BEING TRANSPORTED TO THE PROJECT**

**Photo 3**



**HDPE PIPE BEING OFF-LOADED FROM LANDING CRAFT**

**Photo 4**



**HDPE PIPE STOCKPILED ON STAGING AREA**

**Photo 5**



**WINTER CONDITIONS AT SEALEVEL AT PROJECT SITE;  
VIEW LOOKING SOUTH FROM POWERHOUSE SITE**

**Photo 6**



**SOUTH SIDE OF POWERHOUSE**



**Photo 7**

**NORTH SIDE OF POWERHOUSE; TAILRACE IS VISIBLE**

**Photo 8**



**Pipe stacked on the jetty.**

**Photo 9**



**Pilings that were installed on the south side of the boat ramp area.**

Photo 10



**The south end of the finished Powerhouse.**

Photo 11



**Looking at the north wall on the inside of the Powerhouse.**



Photo 12\*

**INSTALLATION OF  
TURBINE HOUSING  
AND APPURTENANCES**



\*Note: 2 photos put together; reason for distortion

Photo 13



**DEEP SNOW ABOVE POWERHOUSE**

Photo 14



**WINTER BEGINS TO RECEDE FROM STAGING AREA**

**Photo 15**



**TURBINE CASING WITH NEEDLE ASSEMBLY INSTALLED**

**Photo 16**



**PENSTOCK BIFURCATION CONCRETE WORK IN POWERHOUSE**



Photo 17

**TURBINE CASING AT LEFT WITH NEEDLE ASSEMBLY**



Photo 18

**POINT OF BIFURCATION IN POWERHOUSE FOR PENSTOCK**