

# **KASIDAYA CREEK HYDROELECTRIC PROJECT**

**PROJECT NO. 11588**

## **MONTHLY CONSTRUCTION REPORT**

**FOR**

**APRIL 2007**



**Alaska Power & Telephone Company  
110 Spring Street  
P.O. Box 459  
Skagway, AK 99840-0459  
907-983-2202**

# **KASIDAYA CREEK<sup>1</sup> HYDROELECTRIC PROJECT FERC PROJECT NO. 11588-AK**

## **MONTHLY CONSTRUCTION REPORT FOR THE MONTH OF APRIL 2007**

**PREPARED May 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**

All HDPE and ductile iron pipe was transported from Skagway to the project site and stored primarily at the staging area. A slow thaw of ice and snow on the access road slowed efforts to start moving pipe up the access road in preparation for installation. The crew finished all of the sub grade electrical work inside of the powerhouse. The crew also worked on plywood forms in preparation to pour concrete around the branch pipes inside of the powerhouse. Concrete was poured around the branch pipes late in the month. Steel embedment to hold the grates on the south interior end of the powerhouse was installed. Half of the rebar has been installed for a slab pour on the north end of the powerhouse. The crew is going to continue to compact and dry out the inside of the powerhouse until they can pour concrete and the cap on the thrust block.

Two loads of trees were brought to Skagway as free firewood for the city residents.

### **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.

### **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. Cold, winter temperatures persisted in Alaska, hampered access of the project during the month of April in what has been a particularly harsh winter. The labor force in April varied from 4 to 8 people employed full time.

---

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

#### **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:

- May approval by FERC Regional Office for installation of penstock in lower section.
- May 21, FERC public notice expires to comment on license amendment for design change to headworks.
- June 4 target date to have FERC license amendment approved
- July 3 target date to have USFS approval 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)  
US Pipe (ductile iron pipe)

#### **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 April were generally cold with 20 cloudy or mildly wet days, 2 days of snow, and 8 days of sunshine or partial sunshine according to the Weather Underground website. The total precipitation for April was 1.26 inches. Snow does not appear to be recorded although the weather calendar indicates 2 days of snow. Average high temperature for the month was 46°F with a maximum of 61°F on April 20. The average low temperature for the month was 33.4°F with the lowest temperature of 24°F occurring on April 3. 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, but thaw is occurring at lower elevations with some surface water evident in ditches and culverts.

### Summary of ECM Weekly Reports for January:

#### **PROGRESS OF WORK**

- The last of the HDPE pipe has been brought out to Kasidaya. All of the ductile iron and the majority of the HDPE fittings needed have also been brought to the site.
- HDPE pipe is being staged in the Lower Spoils Area for the time being until the right-of-way thaws to the point that the pipe can be brought up and stored at Station 9+00.
- The crew finished all of the sub grade electrical work inside of the powerhouse.
- The furnace in the powerhouse has effectively dried out the interior of the building to the point that the crew has been able to backfill the remaining spots inside the powerhouse. The crew is now compacting the dirt.

- The crew has been working on plywood forms in preparation to pour concrete around the branch pipes inside of the powerhouse. The east side is formed and the west side should be ready in a few days.
- The steel embedment to hold the grates on the south interior end of the powerhouse was being installed while I was on site.
- Half of the rebar has been installed for a slab pour on the north end of the powerhouse. The crew is going to continue to compact and dry out the inside of the powerhouse until they can pour concrete and the cap on the thrust block.
- Two loads of trees were brought to Skagway as free firewood for the city residents.

#### EROSION CONTROL

- The site is beginning to thaw out. Standing surface water and mud is found throughout the site.
- The crew is still primarily working in the staging area and around the powerhouse, therefore the work currently being done out at Kasidaya applies only a minimal threat of erosion.
- The right-of-way is beginning to thaw and the majority of the road is clear of ice to Station 9+00. The road is in decent condition with minimal water damage at this point.
- Water is currently flowing through the culvert by Station 7+31. It appears as if there was some sediment in the water earlier but now it is flowing clear.

#### HAZARDOUS SUBSTANCE

- There are no visible leaks from any of the vehicles 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

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  Milestone	Critical Task  Summary	Progress  Rolled Up Task	Rolled Up Critical Task  Split	Rolled Up Milestone  External Tasks	Rolled Up Progress  Project Summary	Group By Summary  Deadline
---	-----------------	------------------------	--------------------------	--------------------------------	-------------------------------------	-------------------------------------	----------------------------



**Looking west from the Right of Way above the Powerhouse.**



**Looking towards the Staging Area from the Right of Way above.**



**FORMS BEING MADE AROUND THE BRANCH PIPES TO THE TURBINE**





**ABOVE PHOTO: ACCESS ROAD FROM STA. 15+25  
BELOW IS VIEW OF POWERHOUSE WITH COMPLETED EXTERIOR SHELL**





**Pipe being stored at Sta. 9+00.**



**Hole in the Right of Way by Sta. 7+31.**



**ABOVE PHOTO: CONDUITS IN FORMS FOR BIFURCATED PIPE**



**SOUTH SIDE OF POWERHOUSE AFTER THAW**



**ABOVE PHOTO: ACCESS ROAD GRADING AT 'NORTH TRIBUTARY'**



**EAGLE SOARING ALONG SHORELINE**