

DISTRICT TRIP REPORT

Project: Denali Commission Moorings Points Phase 4 – Yukon River

Description: Tanana Trip Report

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George Kalli, Jason Norris, and Leif (Bo) Wycoff traveled to the Yukon River community of Tanana, Alaska on June 7th via commercial air to conduct a site visit and scoping meeting related to potential installation of barge mooring points in the community. A total of three barge landing sites were investigated during the site visit. An overview of the community and barge landing sites is included as Figure 1.

The evening prior to traveling to Tanana we met with Bear Ketzler, city manager of Tanana, in Fairbanks. Bear arranged to have a van waiting for us at the airstrip which we used to access the landing sites.

A public meeting was conducted at 12:00. A total of three residents participated in the meeting. Following is a summary of the information learned during the public meeting and site visit.

GENERAL

Based on conversations during the public meeting, there appears to be multiple sites of soil contamination and ongoing soil remediation efforts in town, including along the river front. Excavation of material for installation any mooring points should be avoided. As in previous communities, the installation of piles driven into the ground will eliminate the need for any excavation of material.

Charlie Wright of Tozitna Corporation Limited, 366-7255, was recommended as a good contact regarding public utility information.

Donnie Eller, or other contacts of the Tanana Power Company or Laundromat, may be good point of contacts regarding utility locations and heavy equipment available in the community.

The desire to have local hire participation in construction activities was expressed.

Permafrost is not anticipated to pose any difficulties to construction.

The Tribe is working on a block grant for a potential home construction project next summer. The homes would be on piles, hence construction equipment may include a pile driver.

According to those at the community meeting, there are no archeological sites along the riverbank. Bull Island, former home of Fort Gibbon along the telegraph line, is an archeological site near town.

The gravel source for the community is Long Island Sand Bar. Access requires an ice road. A Corps permit was just issued for operations there.



Figure 1. Tanana Barge Landing Locations

DOWNSTREAM FREIGHT LANDING SITE

The freight landing is the downstream landing in Tanana located adjacent to the airstrip (Figure 1). It consists of an unimproved ramp with minimal gravel perpendicular to the river (Photos 1 - 3). No fuel header was observed at this landing, it appears to be used solely for freight.

There is a large, unimproved staging area both upstream and downstream of the ramp (Photos 2 – 3). Various items, including two dilapidated cranes, old storage tanks, a partially collapsed three-sided covered storage shed, modular buildings, and logs, were found scattered about the staging area.

Upstream of the landing area and beyond the immediate vicinity of the staging area there were approximately 10 fish wheels being stored along the floodplain of the river (Photo 4).

Pat Moore, a Tanana resident, came to speak with us at the site. He claimed that gravel extracted from the river for improvements to the airstrip has caused erosion to this landing area.

Pat also informed us that the area upstream adjacent to the fish wheels has silted in over recent years. The fish wheels must now access the river in vicinity of the landing ramp. Pat expressed a concern regarding impacts that any mooring points could have upon access to the river by the fish wheels.

The proposed upstream mooring point for this landing site is located 125 feet upstream of the center of the ramp and 55 feet inland from the top of bank. This location is located directly in front of the river side of a crane that we were told has been used as a mooring point (Photo 5). An existing deadman was located near the base of the crane. GPS coordinates for this location are 65°10'20.46"N and 152° 6'22.08"W. A below grade installation is recommended in order to avoid conflicts with fish wheels and potential future removal of the crane.

The proposed downstream mooring point for this landing site is located 125 feet downstream of the center of the ramp and 50 feet inland from the top of bank. This location is located approximately 25 feet downstream of another dilapidated crane and in front of the downstream end of abandoned fuel tanks (Photo 6). GPS coordinates for this location are 65°10'20.58"N and 152° 6'27.66"W. A below grade installation is recommended in order to avoid conflicts with potential future removal of the tanks and crane.

There is an additional unimproved ramp accessing the river from the downstream end of the staging area (Photo 7). During previous discussions with barge operators, we learned that this was previously a concrete ramp that eroded into the river. Use of this ramp has discontinued due to the presence of dangerous pieces of concrete scattered about the approach area. During a walk approximately 300 feet downstream from this abandoned ramp along the river, we observed various metal industrial waste such as pipes and machinery parts, as well as concrete (Photo 8). Mooring points are not recommended at this site.

There was some uncertainty regarding a proposed mooring point located 450 feet upstream of the landing area recommended by Crowley representatives. This would locate the mooring point in the vicinity of the fish wheel storage area that has silted in and does not provide good access to the river. The location of this mooring point may have been based upon the now abandoned

downstream ramp. If so, the location would be in the vicinity of the proposed upstream mooring point. Installation of this mooring point is not recommended.



Photo 1. Tanana Freight Landing Site. The Yukon River flows left to right in the photo.



Photo 2. Tanana Freight Landing Site looking inland and slightly downstream. The staging area is both upstream and downstream of the top of the ramp. Note the small white building and pile of logs. The red and white antennas are affiliated with the airport located across the street.



Photo 3. Tanana Freight Landing Site looking inland and slightly upstream. The staging area is both upstream and downstream of the top of the ramp. Note the small white building, fish wheel, pile of logs, and covered storage area. The red and white antennas are affiliated with the airport located across the street.



Photo 4. Fish wheels stored along the river upstream of the Tanana freight barge landing ramp. The location of the proposed upstream mooring point is to the left of the orange crane visible in the distance.



Photo 5. Corps employee standing in front of abandoned crane at location of proposed upstream mooring point.



Photo 6. Corps employee standing in front of abandoned fuel tank at location of proposed downstream mooring point.



Photo 7. Abandoned ramp located downstream of current freight barge landing.



Photo 8. Industrial waste and concrete block found downstream of abandoned barge ramp.

MIDDLE FUEL LANDING SITE

There are three underground fuel tanks across First Avenue from the Yukon River. Each tank has its own header (Photo 9).

There is a fuel dispenser pump on the river side of First Avenue. There is small ramp angled down to the river just upstream of the pump (Photo 10).

Downstream of the fuel pump and between the river and First Avenue there is a concrete slab with a protruding pipe (Photo 11). This could be a septic tank vent. During the public meeting we were informed that it is an old well house.

Downstream of the old well house there is a fenced off area (Photo 11). Inside the fenced area some geotextile fabric was evident. During the public meeting we were told that this may have been the site of a former above ground tank and is now a site of contaminated soil with a geotextile covering.

Downstream of the fenced off area there is another small ramp angling down to the river (Photos 11 – 12). There is a pole barn structure located near rivers edge at the toe of the bank just upstream of the bottom of the ramp (Photo 13).

A community map of Tanana (Figure 2) indicates that there are buried water lines running along near the river side edge of First Avenue. Despite the fact that these water lines were thought to be out of use by those at the public meeting, a utility locate may be needed to avoid impacting any buried utilities at this location.

We were told that the barges bring mooring cables up the ramp and tie off to cottonwoods on the opposite side of First Avenue.

Due to potential conflicts with buried tanks, well houses, contaminated sites, etc., it was decided to take GPS coordinates at 4 separate sites in order to provide more flexibility in their location should a conflict arise.

The upstream most potential mooring point location is at the top of the upstream side of the upper ramp at $65^{\circ}10'14.52''N$, $152^{\circ}5'6.54''W$ (Photo 14). The remaining three potential mooring points are spaced 75, 150, and 225 feet downstream from this mooring point.

The next downstream potential mooring point location is located 75' downstream on the downstream side of the fuel pump at $65^{\circ}10'14.58''N$, $152^{\circ}5'8.40''W$ (Photo 10).

The next downstream potential mooring point location is located another 75' downstream, just upstream of the fenced off area discussed previously. It is located at $65^{\circ}10'14.70''N$, $152^{\circ}5'10.02''W$

The final mooring point is located a further 75' down on the downstream side of the fenced off area and toward the downstream boat ramp at $65^{\circ}10'14.76''N$, $152^{\circ}5'11.82''W$ (Photo 15).

Two mooring points 150' from each other should be installed. The upstream most configuration with no utility conflicts should be installed.

Due to traffic along First Avenue and fueling operations at the pump, below grade installation of all mooring points is suggested.



Photo 9. Middle fuel landing tanks and headers.



Photo 10. Fuel pump and upstream ramp. Corps employee standing at the proposed location of the second most upstream mooring point.



Photo 11. Old well house slab and green pipe with fenced off area adjacent to it. Beyond the fenced off area there is a ramp to the river along the row of trees.



Photo 12. Downstream boat ramp at the middle fuel landing site.



Photo 13. Pole barn structure located at the toe of bank just upstream of middle fuel landing site.

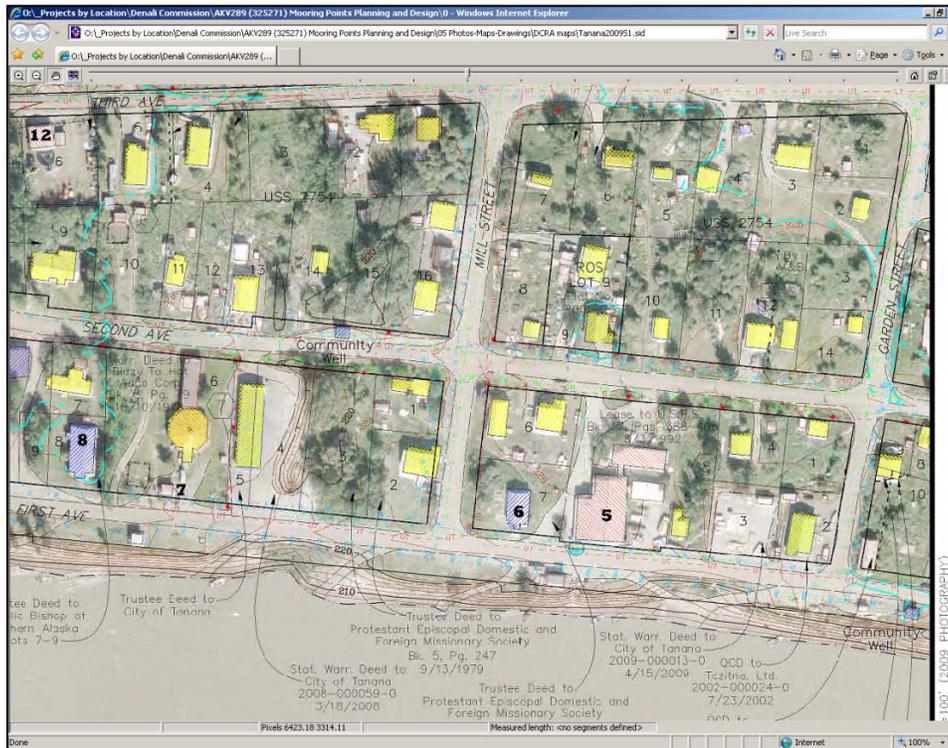


Figure 2. Screen capture of Tanana Community Map. The blue lines running along First Avenue indicate water lines in the vicinity of both the Middle and Upper Fuel Landing Sites.



Photo 14. Corps employee standing at proposed upstream mooring point location.



Photo 15. Corps employee standing at proposed downstream mooring point location.

UPPER FUEL LANDING SITE

This site services a fuel header located between the river and First Avenue (Photo 16). There is a small ramp angling down to the river approximately 100 feet downstream of the header (Photo 18).

A community map of Tanana (Figure 2) indicates that there are buried water lines running along near the river side edge of First Avenue. Despite the fact that these water lines were thought to be out of use by those at the public meeting, a utility locate may be needed to avoid impacting any buried utilities at this location.

Three mooring points are proposed at this landing. Due to traffic along First Avenue, below grade installation of all mooring points is suggested.

The proposed upstream mooring point is located 75' upstream of the fuel header and 19' in from the top of bank near the water treatment plant at $65^{\circ}10'13.56''\text{N}$, $152^{\circ}4'47.52''\text{W}$ (Photo 17).

The proposed middle mooring point is located 85' downstream of the fuel header on the downstream side of where the ramp meets First Avenue at $65^{\circ}10'13.86''\text{N}$, $152^{\circ}4'51.24''\text{W}$ (Photo 18). Placement of a mooring point on the downstream side of the ramp could cause mooring cables to block the ramp. The opposite side of the ramp, however, was occupied by a small work area, woodpile, and dog house with dog during our visit. If barge operators indicate the potential blocking of the ramp as unacceptable, placement of this mooring point on the upstream side of the ramp should be considered.

The proposed downstream mooring point is located 65' downstream of the proposed middle mooring point and 6' downstream of a sewer cleanout along the shoulder of First Avenue at $65^{\circ}10'13.86''\text{N}$, $152^{\circ}4'52.68''\text{W}$ (Photo 19).



Photo 16. Upper Fuel Landing fuel header



Photo 17. Corps employee standing at proposed location of upstream mooring point at upstream fuel landing.



Photo 18. Corps employee crouching at proposed location of the middle mooring point for the upstream fuel landing. Note the small work area, log stash, and dog house on the opposite side of the ramp.



Photo 19. Corps employee standing at the proposed location of the downstream mooring point at the upper fuel landing.